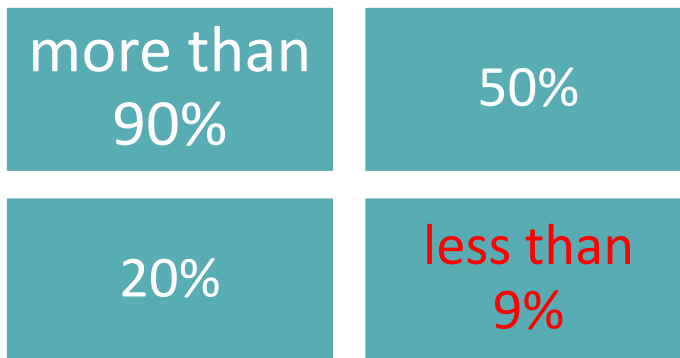


How much of our plastic waste is recycled worldwide¹?



Most of this plastic does not biodegrade and stays in ecosystem cycles for thousands of years, ending up as microplastic in the oceans.



Create a plastic-degrading *Chlamydomonas* alga with us!

As an alga with a relatively small chloroplast genome, *Chlamydomonas reinhardtii* could be genetically modified to degrade the plastic component PET using the hydrolyzing enzymes PETase and MHETase². We, a student research team, will use synthetic biology tools to engineer *Chlamydomonas*, in cooperation with the Hegemann lab and the Schmitz-Linneweber lab at Humboldt University. Our project goal is to ease microplastics pollution in aquatic ecosystems while engaging in an engineering biology competition.

Take part with us in the International Engineered Machine Competition iGEM 2019!

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

HU iGEM '19 Team
igemberl@hu-berlin.de
Instagram: chlamylicious

1) Geyer, R., Jambeck, J. R., & Law, K. L. (2017). Production, use, and fate of all plastics ever made. *Science Advances*, 3(7). Retrieved from <http://advances.sciencemag.org/content/3/7/e1700782.abstract>

2) Yoshida, S., Hiraga, K., Takanaha, T., Taniguchi, I., Yamaji, H., Maeda, Y., ... Oda, K. (2016). A bacterium that degrades and assimilates poly(ethylene terephthalate). *Science*, 351(6278), 1196–1199. <https://doi.org/10.1126/science.aad6359>