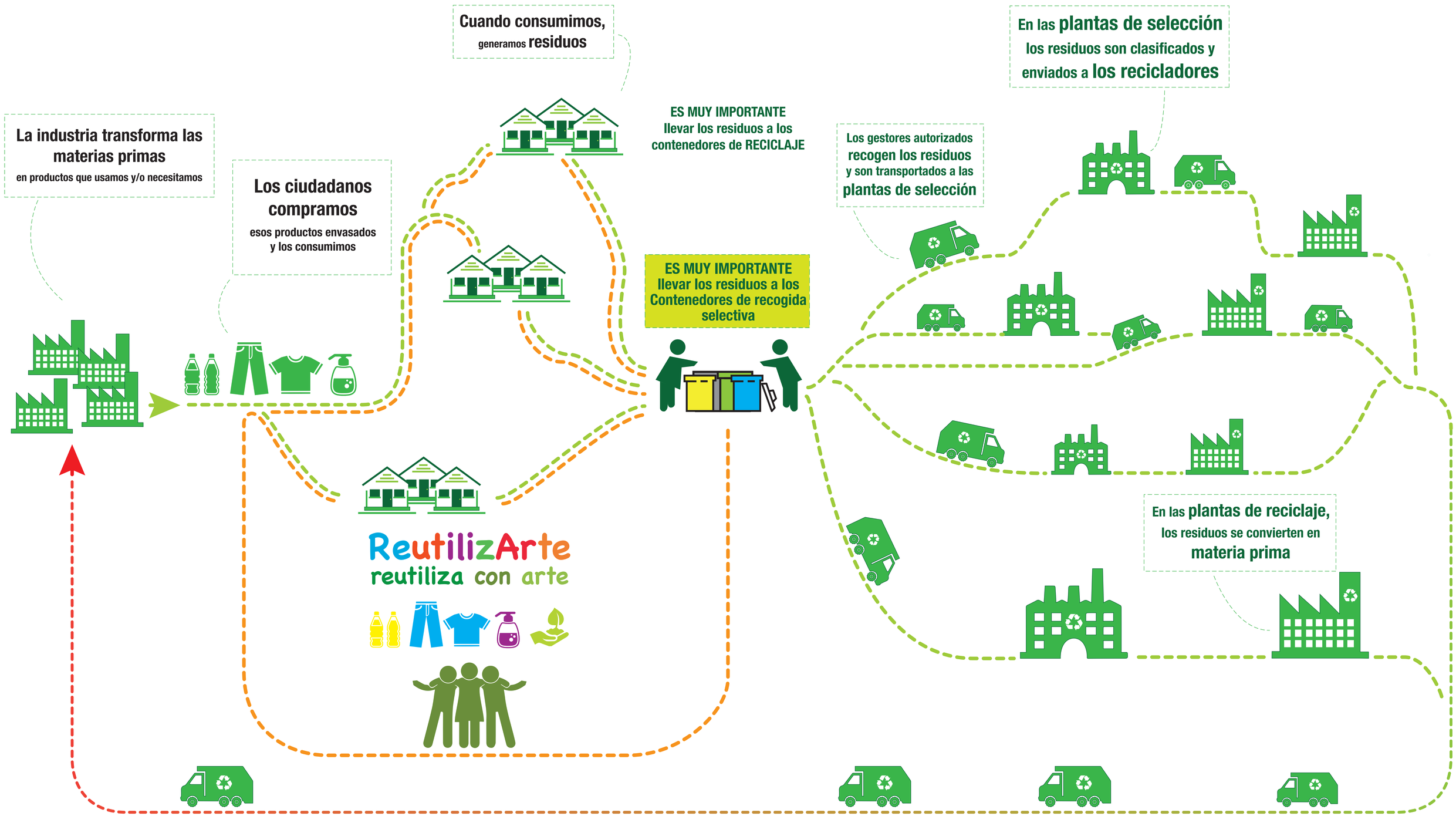CLICO DE VIDA DE LOS MATERIALES