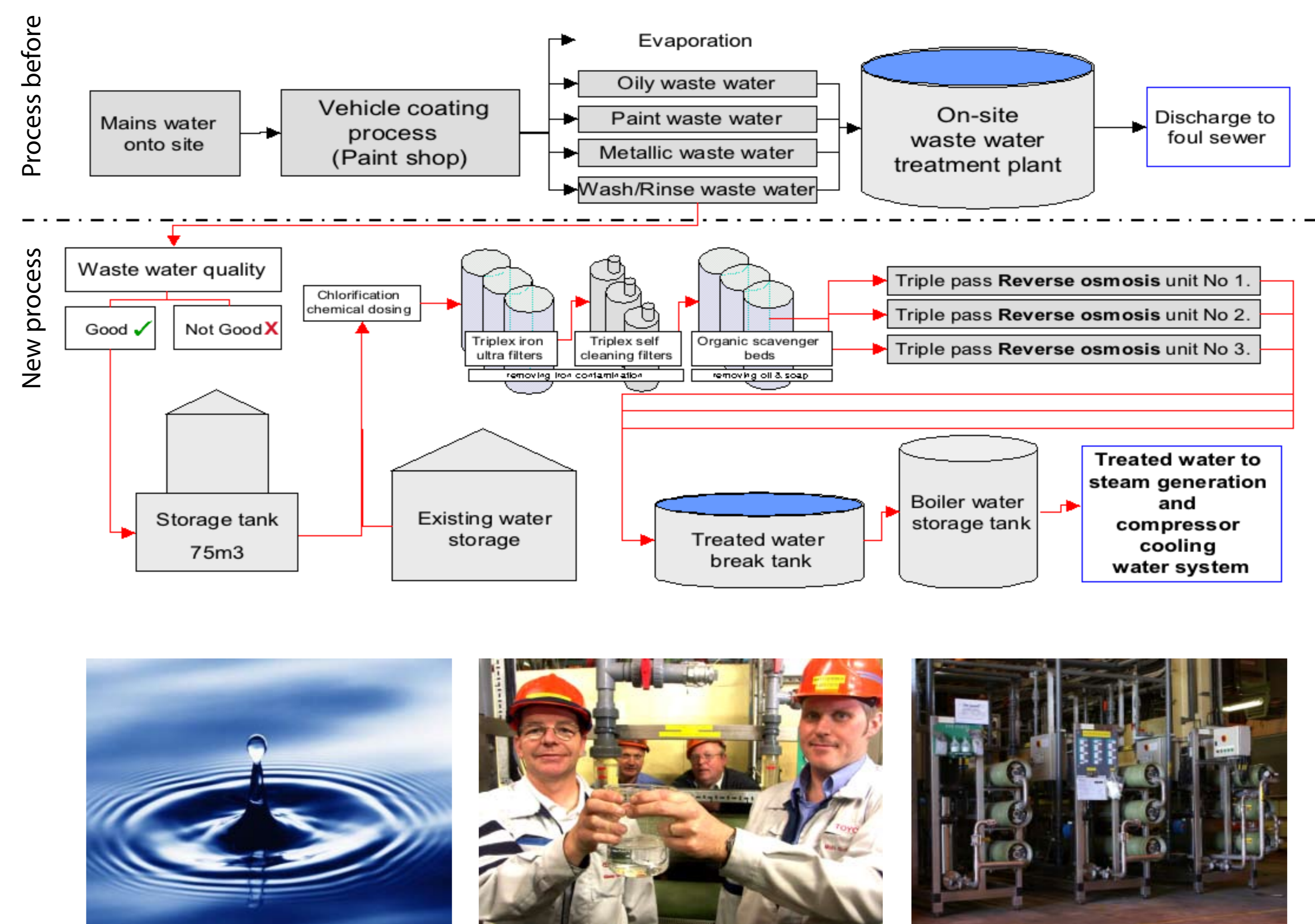


TMUK: Environment case studies

Case study 1: Waste water recycling using reverse osmosis

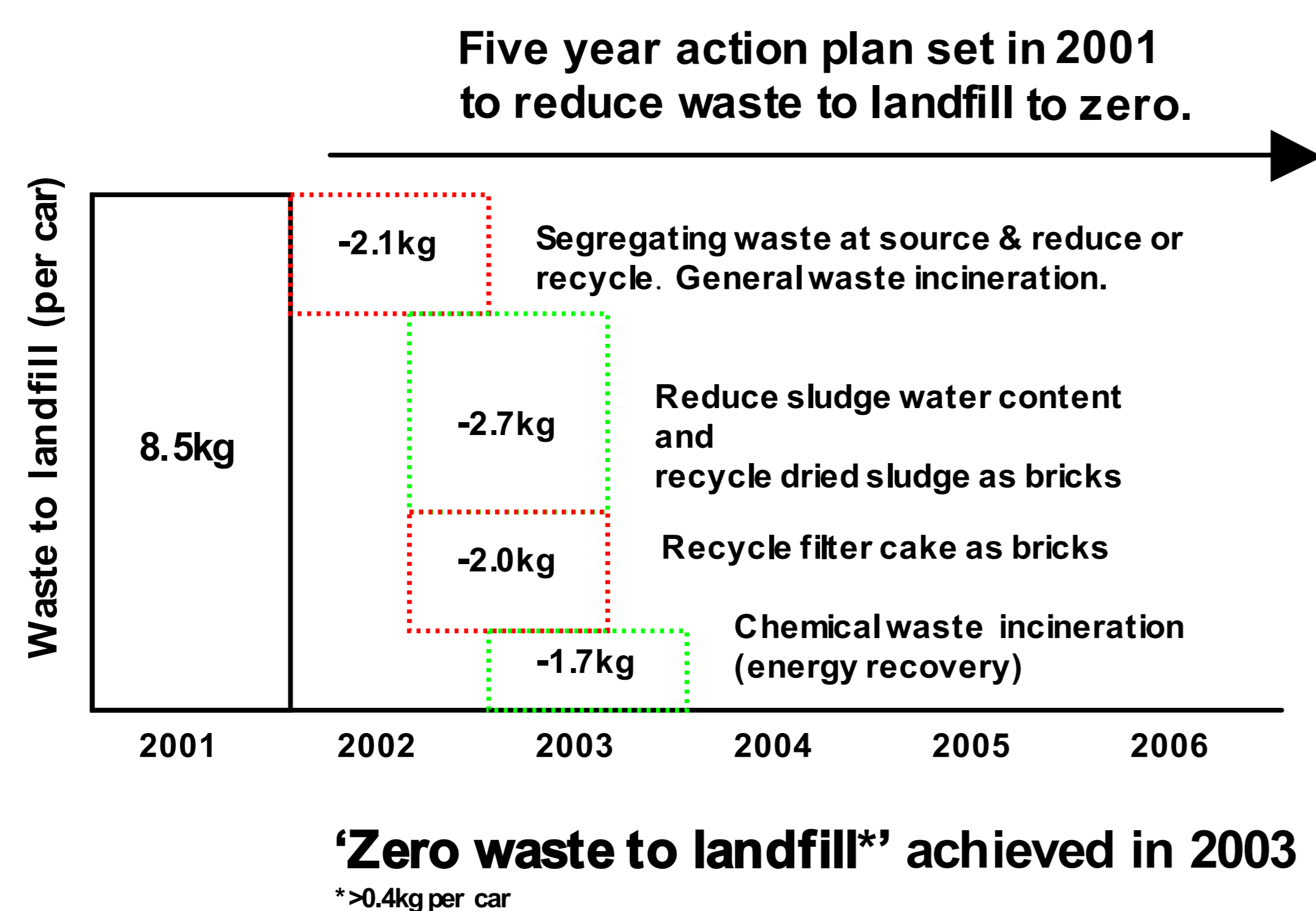
- TMUK is recycling over 100,000M³ of waste water per year for reuse within the Burnaston plant after introducing a reverse osmosis (RO) unit.
- The RO unit purifies waste water discharged from the paint shop so it can be used in the on-site boilers in facilities which generate steam for use around the plant.
- This recycling activity reduces total site water use and the amount of waste water discharged to foul sewer. Also, as the recycled water is so clean it has also increased the energy and operational efficiency of the boilers.
- TMUK is actively seeking ways to further reduce water consumption at both UK plants through activity such as further use of reverse osmosis technology, rainwater harvesting and production process reduction.
- In 2007, Business in the Community (BITC) awarded TMUK a 'Big Tick' Award for Excellence in the Eco-efficiency category in recognition of this innovative waste water recycling activity.

Waste water recycling using reverse osmosis



Case study 2: Achieving zero waste to landfill

Challenge: in 2001 TMUK sent 8.5kg waste per car to landfill, equal to 1818 tonnes per year.



- In 2001, TMUK produced 8.5kg of waste per vehicle which was sent to landfill, equal to 1818 tonnes per year. As part of TMUK's Environmental Action Plan a five year 'dream' goal was set to reduce this amount to zero.
- TMUK's waste reduction goal was approached in three stages. Firstly all areas were challenged to reduce waste volume. Secondly, waste that couldn't be eliminated was to be reused or recycled. Thirdly, waste that could not be reused or recycled had to be treated to reduce its environmental impact.
- A large contributor to landfill waste was sludge from the paint shop. TMUK introduced a centrifuge to reduce the water content of the sludge and pump the water back into the paint ponds for reuse. After trials it was identified that the remaining dried residue, when added to casting sand waste from engine plant, could be used as a raw material in the production of cement.
- TMUK's goal of sending zero waste to landfill was achieved in 2003, two years ahead of schedule. TMUK became the first UK car manufacturer to meet this environmental target.
- In 2004, Business in the Community (BITC) awarded TMUK a 'Big Tick' Award for Excellence for Environmental Leadership in recognition of meeting this challenging waste reduction target. This award was re-accredited in 2005. In 2006, TMUK also received a Premier Business Commitment to the Environment (BCE) Award for Management for this environmental activity.

TOYOTA