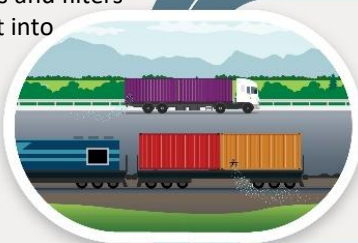


Plastic pellet pollution: A global issue that needs international regulation

- Pellets are produced from fossil fuels, recycled and biobased polymers, and are the **industrial feedstock used to produce almost all plastic products**.
 - Pellets are being **lost to the environment at every stage of the global supply chain** – from production, conversion and recycling facilities as well as during all modes of transport – due to careless handling, storage, transportation practices, poor packaging, and limited training and awareness (Fauna & Flora, 2022).
 - **445,000 tonnes** of pellets are lost to the environment yearly (Oracle, 2023), the equivalent of 29 billion plastic bottles in weight: It is the third largest source of microplastic pollution globally (European Commission, 2023).
 - Plastic pellet pollution has **severe impacts** on biodiversity, communities and economies around the world.
 - Pellet pollution is a result of supply chain-wide, systemic **failures to implement loss prevention measures**. The continuous loss of pellets to the environment shows that voluntary, industry-led initiatives to reduce pellet loss are not enough.
- Fortunately, **pellet pollution is entirely preventable**: Studies have shown that sound pellet loss prevention measures that are maintained and monitored for effectiveness, and adopted and implemented across all sectors could reduce pellet loss by 95% (Eunomia, 2018).

The issue - Pellet loss across the supply chain



2 Preparing pellet cargo for transport

- No standard requirements for primary packaging
- Overfilled and poorly sealed packaging vulnerable to impact
- Thin packaging easily ripped during physical and mechanical handling
- No visible labelling warning handlers of dangers to marine life

3 Transport by trucks and rail

- Damaged and improperly sealed containers and hoppers spill pellets

4 Transport at sea

- Damaged and improperly sealed containers can spill pellets
- Unsecured containers can fall overboard

1 During production

- Inadequate investment in pellet loss prevention
- Poor staff training and housekeeping protocols
- Missing spill trays, insufficient equipment and poor site layout
- Incorrectly sealed hoses and pipes, and leaking silos
- Ineffective drain guards and filters mean pellets are swept into wastewater

5 Pellets converted into products by plastics manufacturers

- Pellets are spilled when sacks are unloaded at manufacturing sites
- Poor storage increases risk of chronic and acute loss
- Pellets spilled during conversion processes can be lost down drains or blown away

The Plastics Treaty: A global opportunity to end Plastic Pellet Pollution

To craft a Plastics Treaty that provides effective solutions to tackle global plastic pellet pollution, it is essential that an obligation for pellets includes:

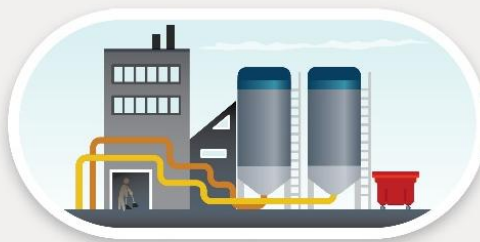
- **All feedstocks** – primary and secondary, fossil fuel and biomass-based plastics.
- Full life cycle and whole value chain (all stakeholders, companies of all sizes that handle pellets).
- **Mandatory minimum requirements for loss prevention measures**, maintenance of those measures, and monitoring for effectiveness.
- **Ecologically sensitive** clean-up and restoration/mitigation measures where needed.
- Parties should take a harmonised approach by establishing global mandatory minimum requirements, which could be contained within an Annex. The measures should promote the **prevention hierarchy** and encompass: prevention, containment, clean-up. There should be specific reporting obligations.
- Well-designed, independent standards and independently governed certification schemes can help support all stakeholders across the whole value chain demonstrate **compliance with the mandatory minimum requirements** detailed in the regulations.
- The Plastics Treaty should seek to drive **cooperation and coordination** with emerging policies in the International Maritime Organization space. It should not defer conversations.

Defining plastic pellets: "Plastic pellets means a mass of pre-formed moulding material, used as feedstock in plastic product manufacturing operations. Plastic pellets can be derived from primary (virgin) polymer and/or secondary polymer (recyclate), including biobased polymers. They are transported in various forms, including flakes, granules and powders and can be referred to as resin or nurdles."

The solution - Effective pellet loss prevention

1 During production

- ✓ Training for all pellet handlers
- ✓ Regular risk assessments
- ✓ Implementation of effective pellet loss prevention
- ✓ All pipes and leak points checked regularly and sealed
- ✓ Monitoring and reporting on progress towards zero pellet loss



2 Preparing pellet cargo for transport

- ✓ Training and monitoring to ensure zero loss during loading
- ✓ Use of robust tearproof packaging



3 Transport by trucks and rail

- ✓ Independent audits and monitoring to ensure zero pellet loss during storage and transport



4 Transport at sea

- ✓ Classification of pellets as marine pollutants to improve stowage, packaging and communication requirements
- ✓ Rapid containment and implementation of agreed clean-up protocols to reduce impact



5 Pellets converted into products by plastics manufacturers

- ✓ Training for all pellet handlers
- ✓ Regular risk assessments
- ✓ Verified compliance with pellet loss prevention standards
- ✓ Pellets stored in sealed or protected areas

