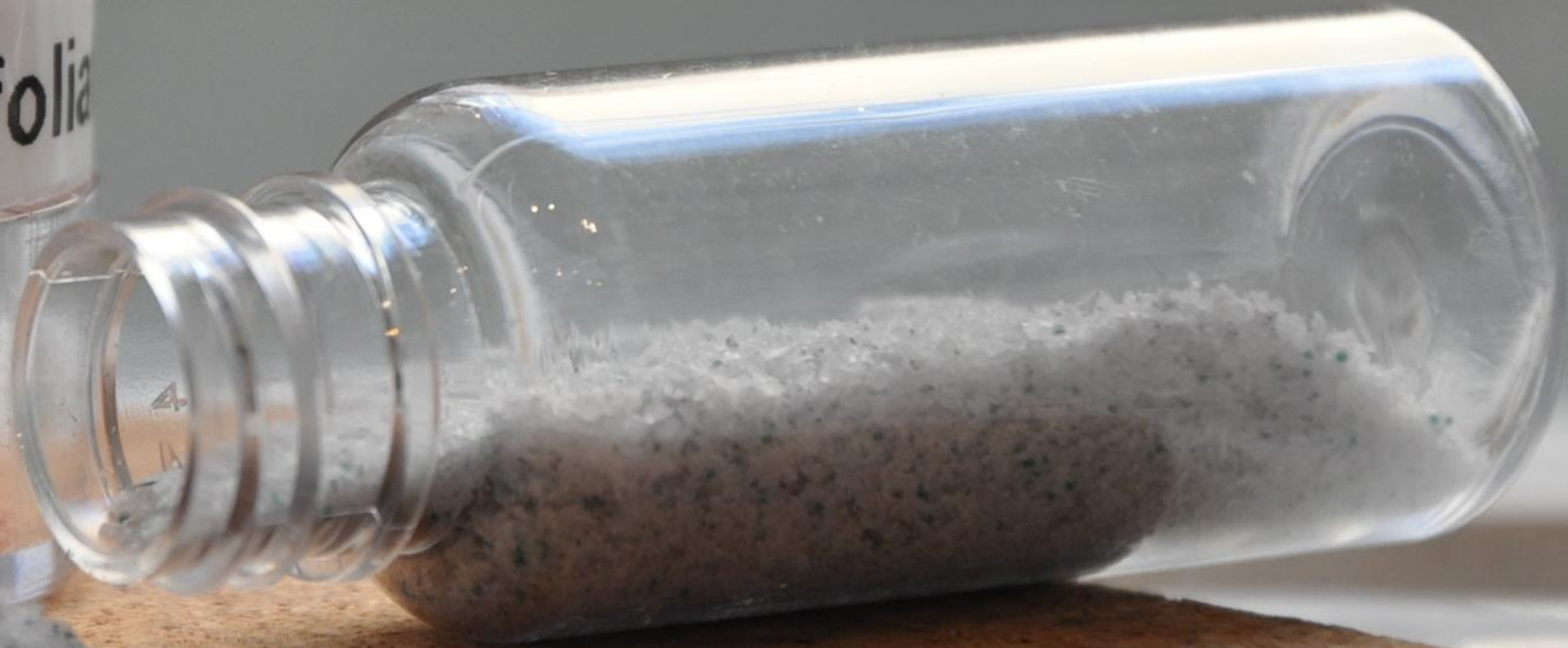




Changing the Plastics System to Reduce Threats to Biodiversity

**“SENSIBLE PLASTICS”,
BIOPLASTICS AND SYSTEMS
CHANGE**

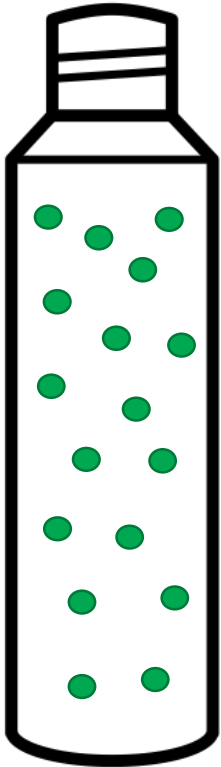
01 MARCH 2019 / DAN STELWES



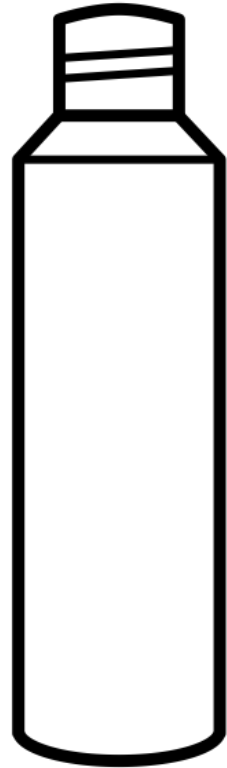
CHANGING THE SYSTEM - MICROBEADS



OLD



NEW



APPROACHES

1. Show that problem affects biodiversity
2. Show that solution is possible and viable
3. Change corporate practice
4. Build political support for new system

THE NEW MICROBEADS SYSTEM



BEFORE

Pre-2012: No evidence of microbeads as a problem

Pre-2013: Microbeads used as standard, esp by large companies

Pre-2016: Microbeads permissible in law, everywhere



AFTER

2014: Lab experiments, then **2016** wild sampling show the problem

2013-present: Companies start to phase out, but results are mixed

2016: Microbeads illegal in UK, US etc. + bans increasing in strength

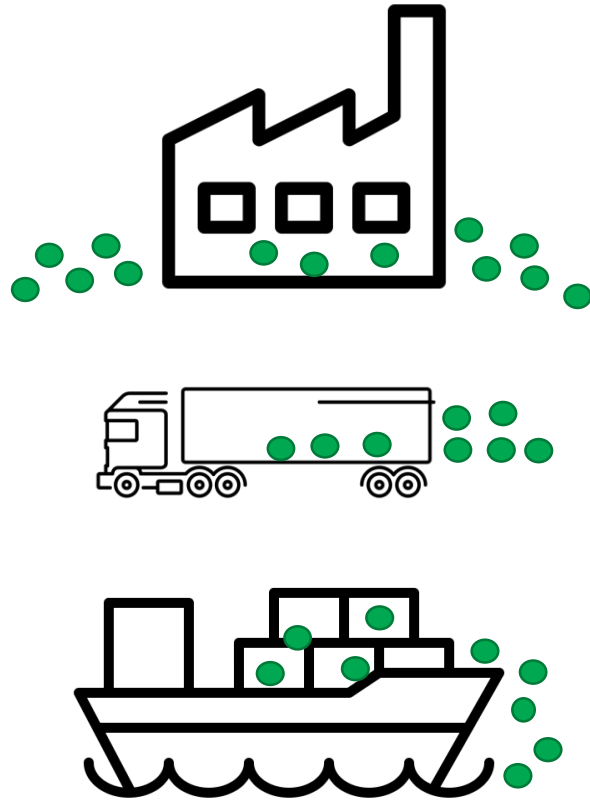
FUTURE: Landmark legislation in EU being consulted now (most comprehensive ban to date); figuring out how corporate restrictions apply to global supply chains



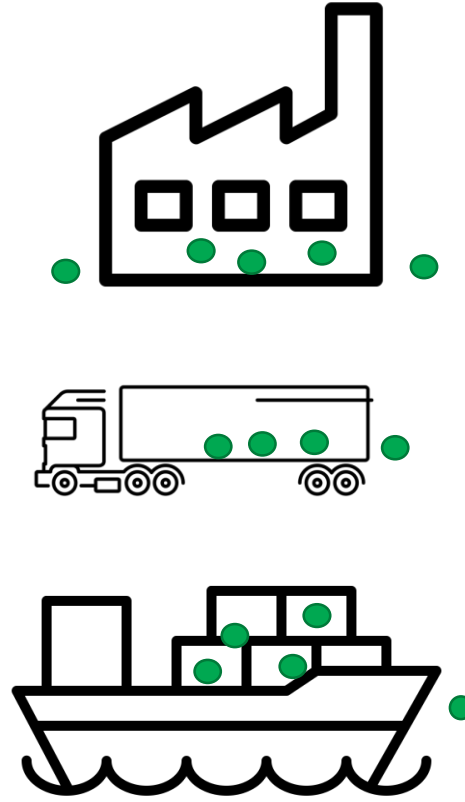
CHANGING THE SYSTEM - NURDLES



OLD



NEW



APPROACHES

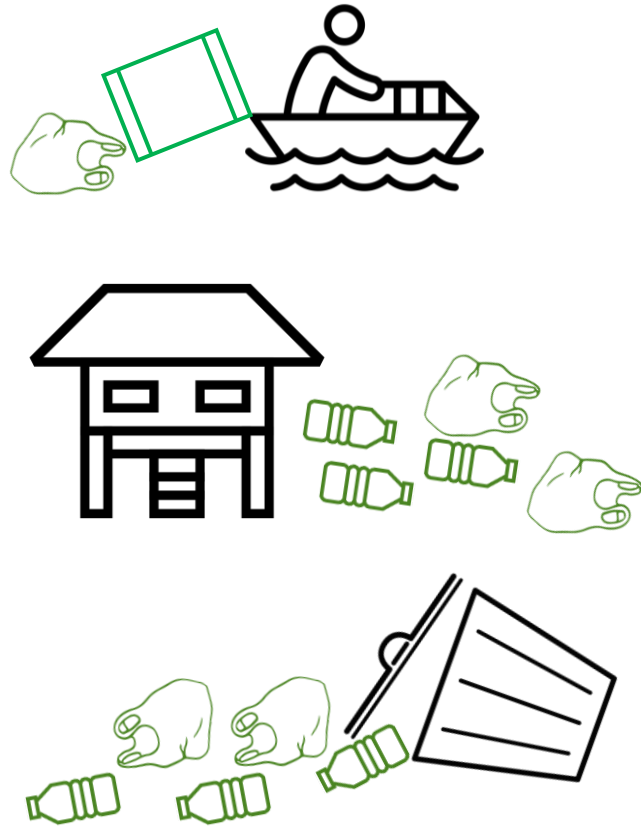
1. Show that problem affects biodiversity
2. Show that solution is long-term and reasonable
3. Change corporate practice
4. Build political support for new system



CHANGING THE SYSTEM – PLASTIC USE AND DISPOSAL



OLD



NEW



APPROACHES

1. Be practical and find what works
2. Be wary of false solutions
3. Map the entire system and build local support
4. Try to make changes that will last

WHERE DO BIOPLASTICS FIT IN A NEW SYSTEM?



Causes for concern

- *Different but the same?* Bio-based plastics can have identical chemical structure to conventional plastic, and therefore can have exactly the same ability to accumulate toxic pollutants from surrounding seawater
- *What bin does it go into?* Some bio-based plastics can be put into recycling bins; however, if products produced are of low value (e.g. single-use) and there's no waste systems, bio-based plastic products are as likely as conventional plastics to pollute
- *What's in a name?* 'Bio-based plastic', 'plant-based plastic', 'bioplastic plastic' and 'biodegradable plastic' are confusable terms; 'bio' (or 'plant') suggests that products present no harm to the environment; could even lead consumers to be more careless

WHERE DO BIOPLASTICS FIT IN A NEW SYSTEM?



Causes for optimism

- “Renewable” plastics? Bio-based plastics present the opportunity of using partly or total renewable feedstock, so less reliance on fossil fuels
- “Low carbon” plastics? This shift in feedstock can (but will not always) reduce carbon emissions of plastic production

Key question: How does using bioplastics instead of conventional plastics add value to products (making consumers more likely to retain them, corporates more likely to invest in recovering them and governments more likely to make laws about them)?

FFI AND PLASTIC POLLUTION

- *Reason:* Effects on marine wildlife, some known, some unknown
- *Vision:* Collectively, the world can create momentum for change, to stop the accidental and unseen flow of plastics into our rivers and seas
- *Approach:* We believe in “sensible” plastic, banning unnecessary plastics, providing plastics support to countries that cannot process it.
- ***FFI does not condemn plastic as a material, only its mismanagement***



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**FAUNA & FLORA INTERNATIONAL
MARINE PLASTICS PROGRAMME**

**INFORMED SOLUTIONS
TO AN OCEAN EMERGENCY**





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*Thanks for
listening!*