Introduction of the methodology for the calculation of the core indicators on plastic

Zhijie (Gloria) Li, SCYCLE Programme, UNITAR
z.li@unitar.org

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https://www.imperial.ac.uk/news/200553/ocean-plastic-triple-2040-immediate-action/

Calculation and data sources

UNEP/UNITAR Statistical guideline on measuring flows of plastic throughout the life cycle

Total supply of products

= Production → Official statistics

+ Imports → Official statistics

Total use of products

= Intermediate consumption

+ Household final consumption

+ Gross capital formation

} Apparent consumption → To be calculated

+ Exports → Official statistics

$$\boldsymbol{Apparent\ consumption\ (t) = Production\ (t) + Imports\ (t) - Exports\ (t)}$$

Plastic waste generated — To be calculated based on material flow analysis

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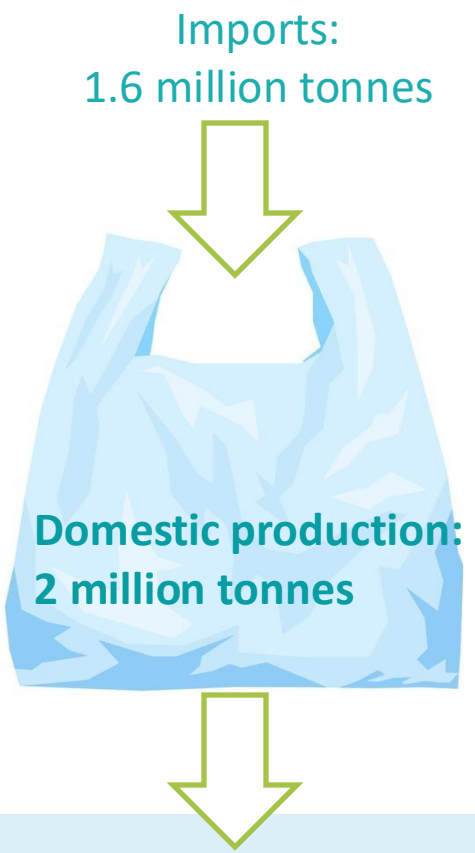
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Apparent Consumption of Plastic

The amount of plastic that appeared to have been consumed within the country's economic territory by industries, services, and households during the year.

$$\boldsymbol{Apparent\ consumption\ of\ products\ (t)} = \underbrace{\boldsymbol{Production\ (t)}}_{\text{Production Statistics}} + \underbrace{\boldsymbol{Imports\ (t) - Exports\ (t)}}_{\text{Trade Statistics}}$$



Statistics on Trade

HS Codes: Harmonized Commodity Description and Coding System

A multipurpose international product nomenclature developed by the World Customs Organization (WCO).

HS Code	HSDescription
3923.10	Boxes, cases, crates and similar articles for the conveyance or packaging of goods, of plastics
3923.21	Sacks and bags, incl. cones, of polymers of ethylene
3923.29	Sacks and bags, incl. cones, of plastics (excl. those of polymers of ethylene)
2009.11	Frozen orange juice, unfermented, whether or not containing added sugar or other sweetening matter (excl. containing spirit)

It allows participating countries to classify traded goods on a common basis for **customs purposes**.

At the international level, the HS for classifying goods is a **six-digit code system**, which comprises approximately 5,300 article/product descriptions.

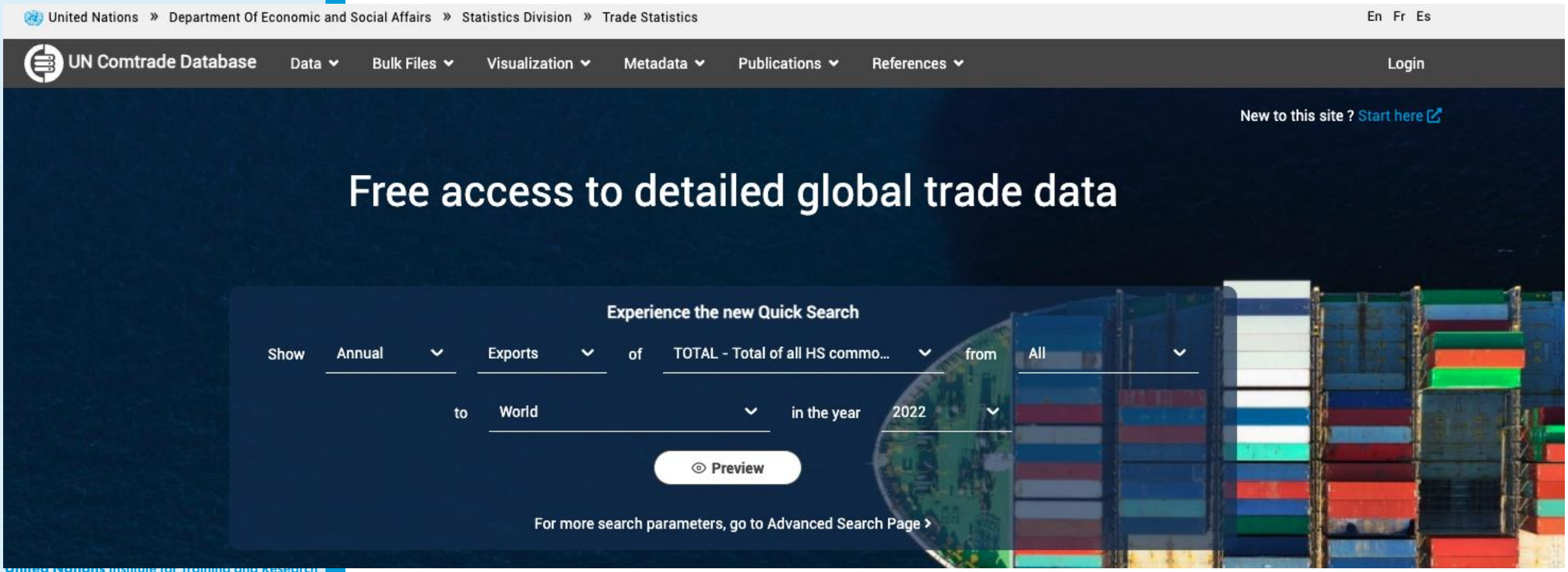
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Statistics on Trade

HS Codes: Harmonized Commodity Description and Coding System



Statistics on Production

CPC codes : Central Product Classification

A framework for international comparison of statistics on goods, services, and assets. It constitutes a complete product classification covering goods and services, serving as an international standard for assembling and tabulating all kinds of data requiring product detail, including industrial production, national accounts, service industries, domestic and foreign commodity trade, international trade-in services, balance of payments, consumption, and price statistics.

CPC Code	CPC Description
36490	Other articles for the conveyance or packing of goods, of plastics; stoppers, lids, caps and other closures, of plastics
36410	Sacks and bags, of plastics
21321	Tomato juice
21329	Other vegetable juices

The overall set of products is subdivided into a hierarchical, five-level structure of mutually exclusive categories, facilitating data collection, presentation and analysis at detailed levels in an internationally comparable, standardized way.

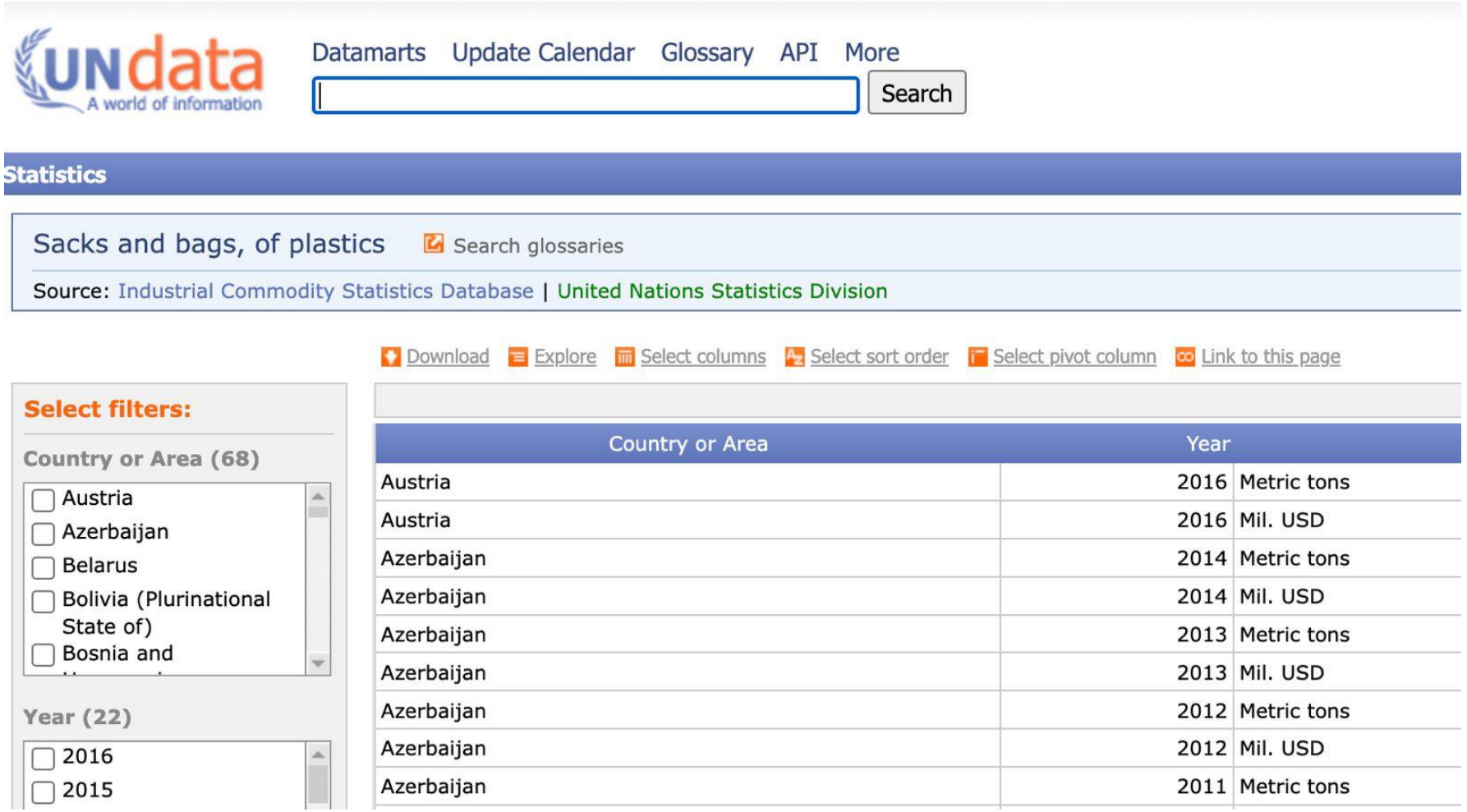
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Statistics on Production

CPC codes : Central Product Classification

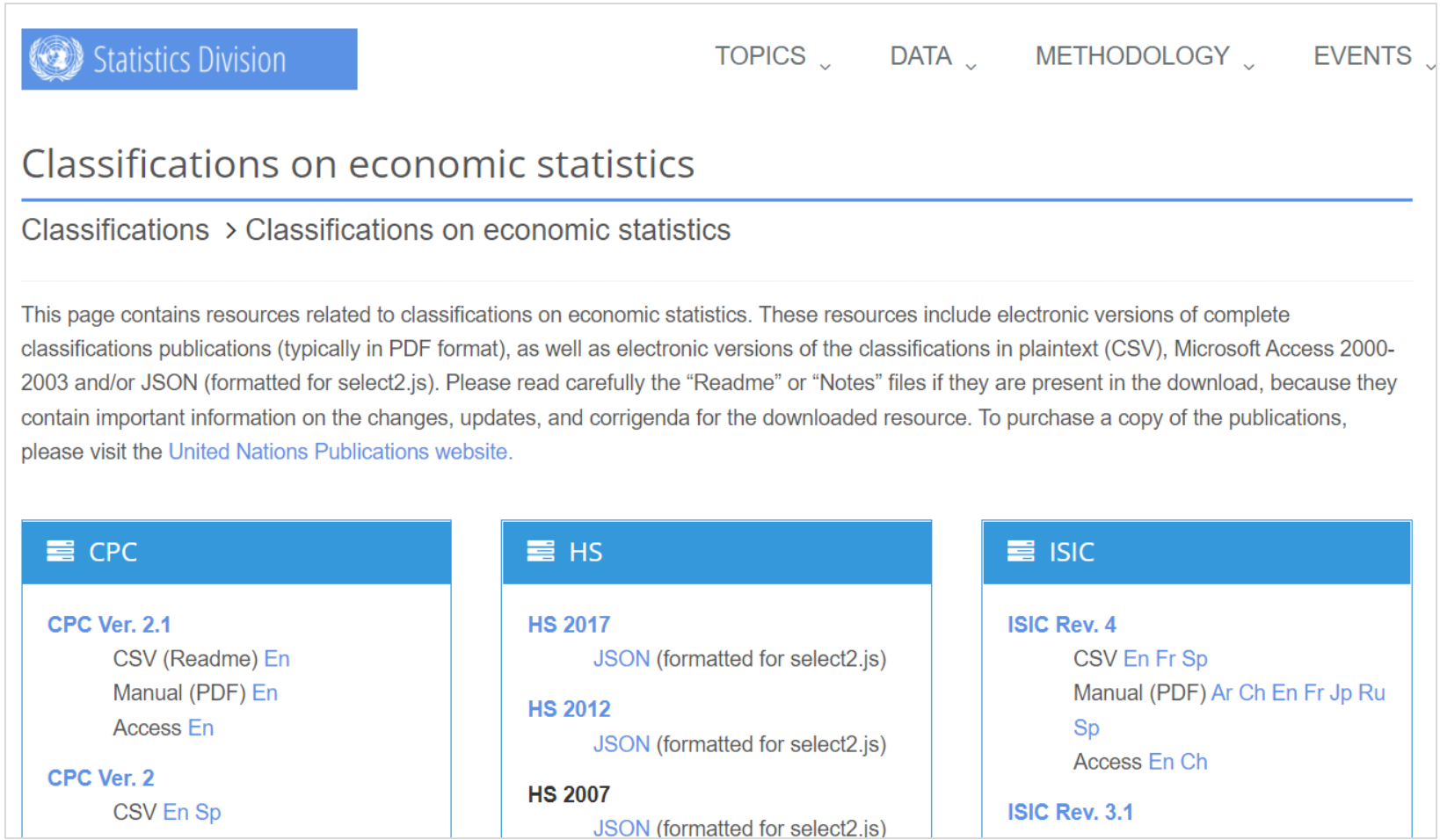


Country or Area	Year	
Austria	2016	Metric tons
Austria	2016	Mil. USD
Azerbaijan	2014	Metric tons
Azerbaijan	2014	Mil. USD
Azerbaijan	2013	Metric tons
Azerbaijan	2013	Mil. USD
Azerbaijan	2012	Metric tons
Azerbaijan	2012	Mil. USD
Azerbaijan	2011	Metric tons

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Statistics on Plastic



Statistics Division

TOPICS DATA METHODOLOGY EVENTS

Classifications on economic statistics

Classifications > Classifications on economic statistics

This page contains resources related to classifications on economic statistics. These resources include electronic versions of complete classifications publications (typically in PDF format), as well as electronic versions of the classifications in plaintext (CSV), Microsoft Access 2000-2003 and/or JSON (formatted for select2.js). Please read carefully the "Readme" or "Notes" files if they are present in the download, because they contain important information on the changes, updates, and corrigenda for the downloaded resource. To purchase a copy of the publications, please visit the United Nations Publications website.

CPC

CPC Ver. 2.1
CSV (Readme) En
Manual (PDF) En
Access En

CPC Ver. 2
CSV En Sp

HS

HS 2017
JSON (formatted for select2.js)

HS 2012
JSON (formatted for select2.js)

HS 2007
JSON (formatted for select2.js)

ISIC

ISIC Rev. 4
CSV En Fr Sp
Manual (PDF) Ar Ch En Fr Jp Ru Sp
Access En Ch

ISIC Rev. 3.1

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Plastic Waste Generated

Plastic waste generated is defined as the amount of plastic embedded in discarded products that contain plastic, within national territory in a given reporting year, prior to any collection, reuse, treatment, or exportation.

Methodology overview: Estimation of plastic waste generated



Apparent consumption



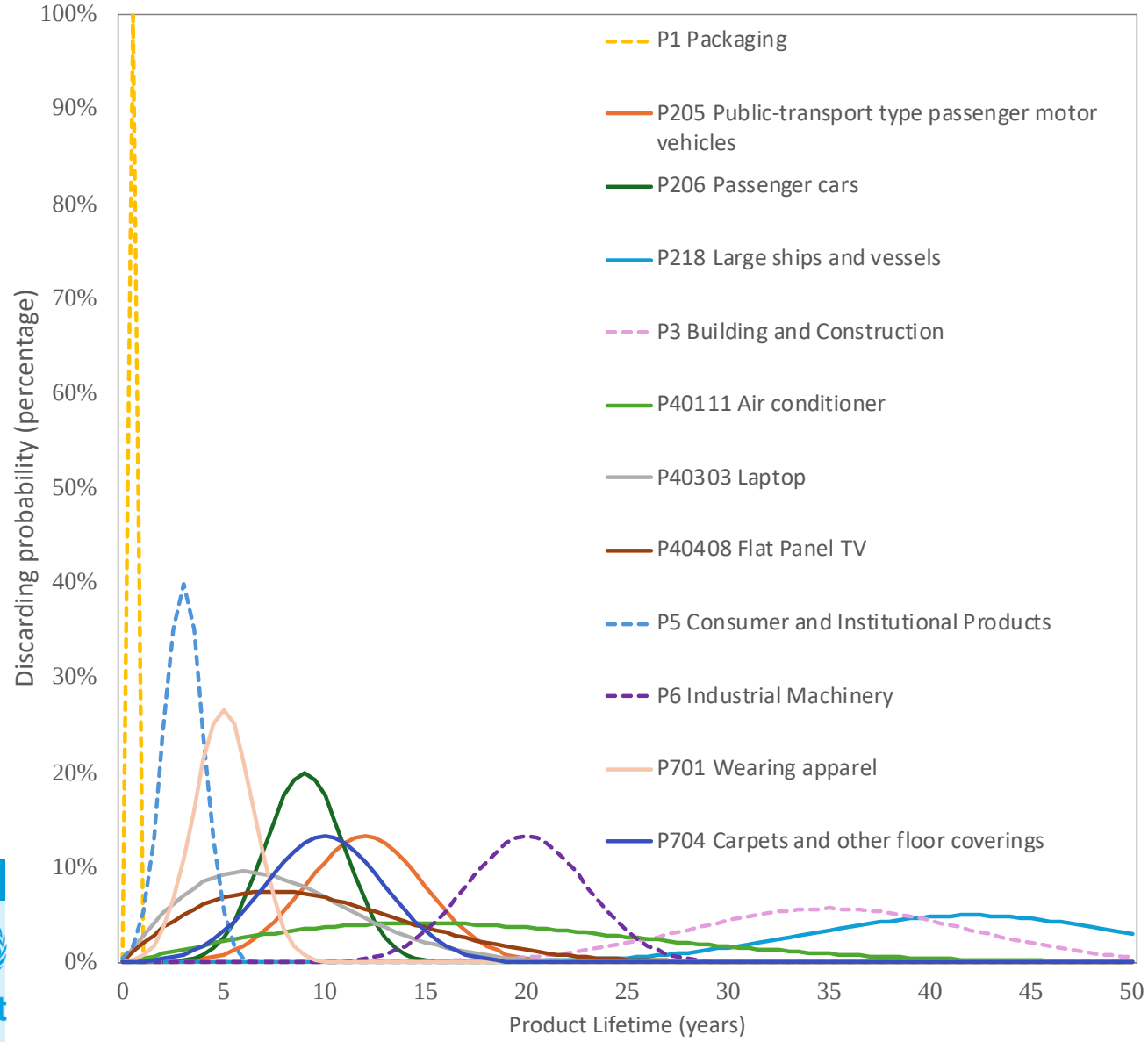






Plastic waste generated

Methodology overview: Estimation of plastic waste generated



Classification system developed by SCYCLE: Plastic-KEYs

Plastic-KEYs developed by UNITAR

- Products with *similar function*
- Product with *comparable material composition*
- Products with *similar end-of-life characteristics*

HS code	HS code description	Plastic-KEY group	Plastic-KEY	Plastic-KEY description
890391	Sailboats and yachts, with or without auxiliary motor, for pleasure or sports	P2 Transportation	P220	Vessels for pleasure and sports
851631	Electric hair dryers	P4 Electrical and electronic equipment	P40205	Personal Care (e.g. toothbrushes, hair dryers, razors)

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Classification system developed by SCYCLE: Plastic-KEYs

Eight Plastic-KEY Groups

- P1 Packaging
- P2 Transport
- P3 Building and construction
- P4 Electrical and electronic equipment
- P5 Consumer and institutional products
- P6 Industrial machinery
- P7 Apparel and textile furnishing articles
- P8 Other

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Scope of Plastic-KEYs

Finished plastic products vs Plastic-containing products

Finished products

Finished plastic products





Plastic-containing products





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Plastic Content

Plastic Embedded in Plastic-containing products

Plastic content * Plastic-containing products





HS code	HS code description	Plastic-KEY group	Plastic-KEY	Plastic-KEY description	Plastic content
890391	Sailboats and yachts, with or without auxiliary motor, for pleasure or sports	P2 Transportation	P220	Vessels for pleasure and sports	0.29
851631	Electric hair dryers	P4 Electrical and electronic equip ment	P40205	Personal Care (e.g. toothbrushes, hair dryers, razors)	0.30

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Plastic-KEY Examples

Classification system developed by SYCLE: Plastic-KEYs



P102 Sacks and bags, of plastics
Lifetime: 0.5 years
Plastic fraction: 100%



P212 Bicycles
Lifetime: 13 years
Plastic fraction: 7.5% (?)

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Classification system developed by SYCLE: Plastic-KEYs

Plastic-KEYs

- Mapping the links between plastic consumption and waste management
- Double counting avoided
- Various economic sectors involved
- Key parameters included, e.g. lifetime, plastic content, and polymer composition

HS code:

3923.21	Sacks and bags, incl. cones, of polymers of ethylene
3923.29	Sacks and bags, incl. cones, of plastics (excl. those of polymers of ethylene)

Plastic-KEY: **P102 Sacks and bags, of plastics**

CPC code:

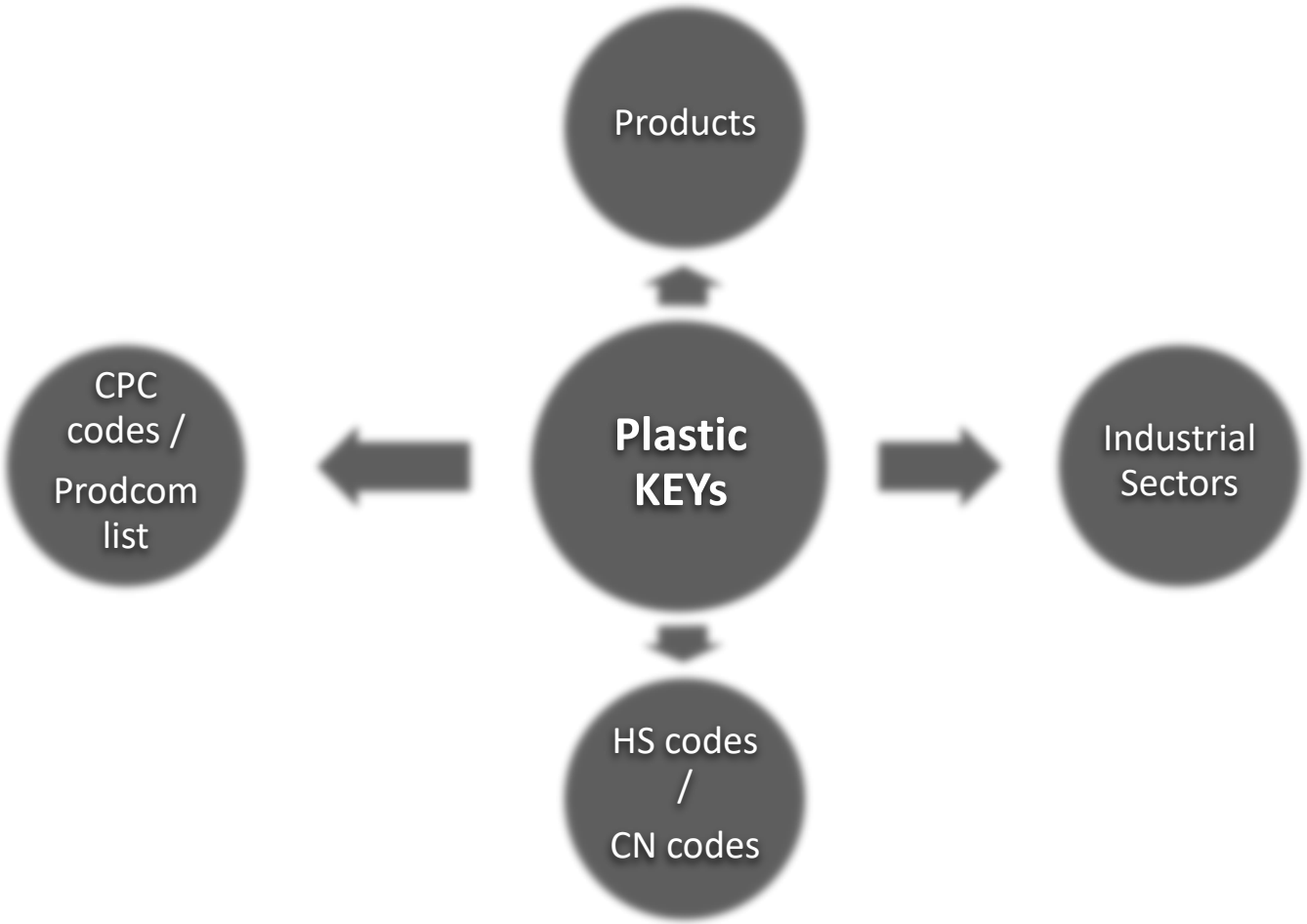
36410	Sacks and bags, of plastics

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Classification system developed by SYCLE: Plastic-KEYs

Statistical use of Plastic-KEYs



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Some Examples of Plastic-KEYs

Plastic-Key	Description
P101	Boxes, cases, crates and similar packing articles, of plastics
P102	Sacks and bags, of plastics
P103	Juices
P104	Mineral waters and aerated waters
…	…
P211	Motorcycles
P212	Bicycles
P213	Wheelchairs
P214	Trailers and semi-trailers of the caravan type, for housing or camping
P215	Balloons and dirigibles; gliders, hang gliders and other non-powered aircraft
…	…

Some Examples of Plastic-KEYs

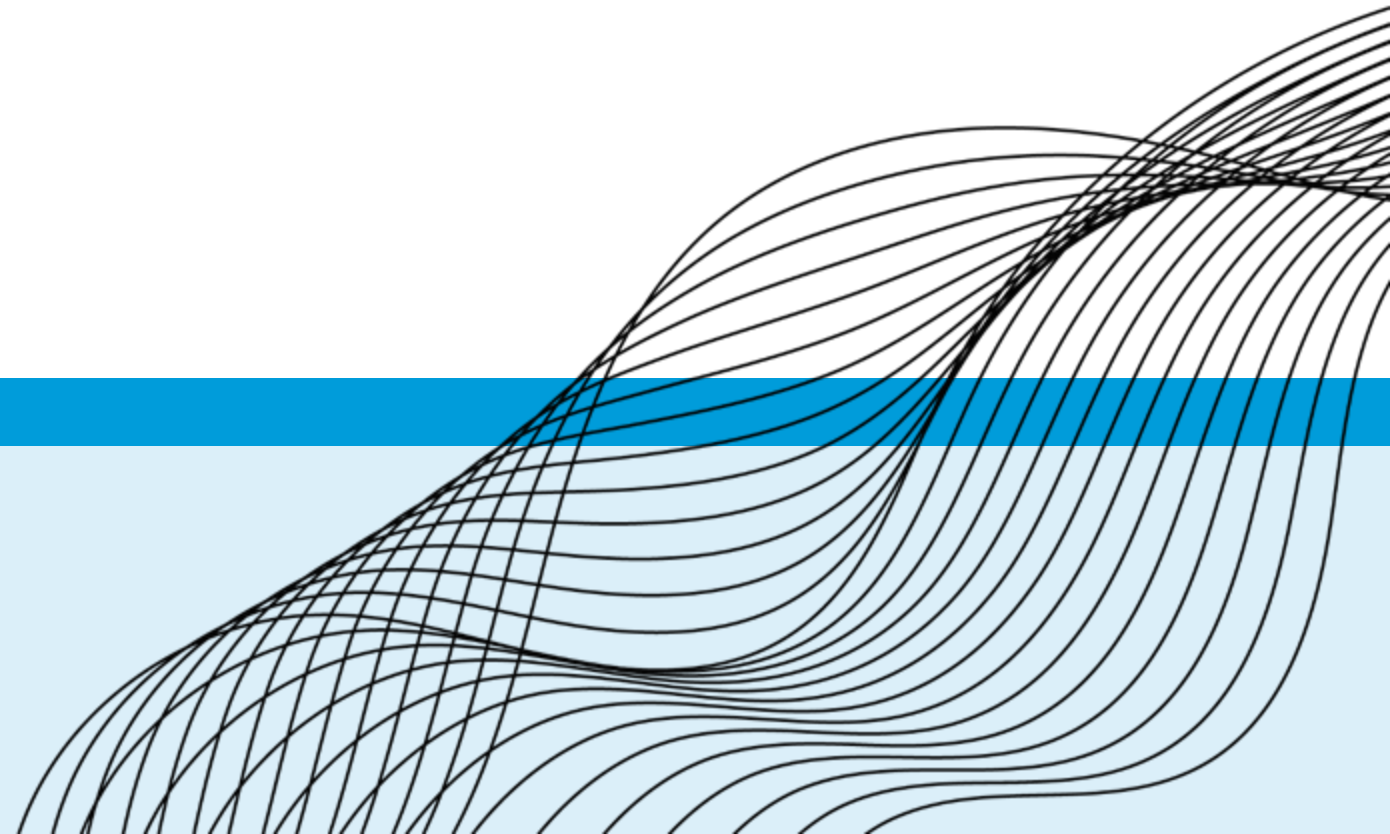
CPC Group	CPC Class	CPC Subclass	Description	Plastic-KEY	Plastic-KEY Description	Plastic Content (tentative)
	3811	38119	Other seats	P504	Furniture	0.075
	3814	38140	Other furniture n.e.c.	P504	Furniture	0.5
383	3834	38340	Musical instruments, the sound of which is produced, or must be amplified, electrically	P40703	Leisure (e.g. large exercise, sports equipment)	…
385	3851	38510	Dolls' carriages; wheeled toys designed to be ridden by children	P40701	Toys (e.g. car racing sets, electric trains, music toys, biking, computers)	…
	3852	38520	Dolls representing human beings; toys representing animals or non-human creatures	P808	Non-electric toys	

Some Examples of Plastic-KEYs

HS Code	HS Description	Plastic-KEY	Plastic-KEY Description	Plastic Content (tentative)
392321	Sacks and bags, incl. cones, of polymers of ethylene	**P102**	Plastic sacks and bags	1
392610	Office or school supplies, of plastics, n.e.s.	**P502**	Office or school supplies	1
570500	Carpets and other textile floor coverings, whether or not made up (excl. knotted, woven or tufted needle punched", and of felt)"	**P704**	Carpets and other floor coverings	0.4

Thank you!

Questions?



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