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Redirecting Financial Flows to End Plastic Pollution

How the international legally binding instrument can enable the role of private finance

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Abbreviations and Acronyms

BAU	Business-as-Usual
CDP	Carbon Disclosure Project
CCU	Carbon Capture and Utilization
EPR	Extended Producer Responsibility
EMDE	Emerging Market and Developing Economies
GBF	Global Biodiversity Framework
GDP	Gross Domestic Product
GHG	Greenhouse Gas
ILO	International Labour Organization
ILBI	International Legally Binding Instrument
INC	Intergovernmental Negotiating Committee
NGO	Non-Governmental Organisation
NGFS	Network for Greening the Financial System
NPV	Net Present Value
OECD	Organisation for Economic Co-operation and Development
PET	Polyethylene Terephthalate
POC	Proof of Concept
SME	Small and Medium-sized Enterprises
SDG	Sustainable Development Goals
TCFD	Task Force on Climate-related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures
TRL	Technological Readiness Level
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environmental Programme Finance Initiative
UNGP	United Nations Guiding Principles on Business and Human Rights
USD	United States Dollar
WEF	World Economic Forum
WWF	World Wide Fund for Nature

Glossary

Article 2.1 c of the Paris Agreement: Article that sets the objective to making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development to hold the increase in the global temperature to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.

Charitable funds: Financial resources sometimes referred to as philanthropic funds. These funds are typically used for supporting nonprofit activities that address societal issues.

Climate finance: The funding from all sources, public and private, provided to projects, initiatives, and policies that address climate change by reducing greenhouse gas emissions.

Financial bond: A debt security that a corporation, sovereign government, state, or municipality issues to raise financial capital with bondholders. Bondholders receive periodic interest payments and at the maturity date also the return of the bond's face value.

Financial equity: An ownership interest or stake in an organisation or asset. It represents the financial value of the ownership claim in the form of a share held by shareholders or investors.

Financial flow: The movement of financial resources or capital from one investment target to another. It can also relate to a financial transaction between one party and another.

Financial grant: Funding provided by a government, charity, corporate or other entity to a grant receiver (e.g. research and development unit) often without the expectation of repayment.

Financial loan: Sum of money lent to a party by a lender, typically a financial institution, under contractually agreed terms on the loan's interest rate on the principal amount and repayment schedule.

Financial viability: Expresses the sustainability and profitability of a business, project, or initiative by evaluating the ability to structurally generate sufficient revenue to meet financial obligations.

Global Biodiversity Framework Goal D: Goal D of the Kunming-Montreal Global Biodiversity Framework (GBF) sets the objective to secure and make accessible to all parties adequate means of implementation, including financial resources, to fully implement the Kunming-Montreal global biodiversity framework, progressively closing the biodi-

versity finance gap of USD 700 billion per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for Biodiversity.

Market shift: In this paper a market shift is referred to as a significant change in the plastics value chain, based on a market transformation away from plastics pollution towards a safe, sustainable, and just circular plastics economy.

Private finance: Financial resources and investments from non-governmental and non-public sources, such as corporates, individuals and financial institutions.

Public finance: Financial resources and investments from government and other public sources to support various public infrastructure and the public good.

Redirection of financial flows: The redirection of financial flows involves shifting financial flows, resources, and investments away from activities with negative environmental or social impacts towards safer, more sustainable, responsible, and just activities.

Technological Readiness Level (TRL): A scale used to assess the market maturity and the development stage of a technology, with higher TRL values indicating greater market readiness.

Zero Draft: Zero Draft text of the international legally binding instrument on plastic pollution, including in the marine environment, called for by Resolution 5/14, developed by the Chair of the intergovernmental negotiating committee, with the support of the secretariat, for consideration of the intergovernmental negotiating committee at its third session (INC-3) (UNEP/PP/INC.3/4).

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Executive summary

Under a business-as-usual scenario, the volume of mismanaged plastics waste is projected to grow substantially to well over 250 million metric tons annually by 2040.[1] Nonetheless, directing financial flows to activities that contribute to plastic pollution under a business-as-usual scenario is currently often less risky than financing activities that contribute to a just and safe plastics circular economy as called for in the global plastics treaty negotiations. The end of plastic pollution is anything but business-as-usual; it is a systemic change, facilitated by the redirection of financial flows. This paper focuses on how the provisions in the international legally binding instrument (ILBI) can enable this systemic change for the global finance community[2] and how the required redirections of financial flows can take shape. An estimated USD 1.64 trillion investment[3] is needed to finance the required system change and ambitious policies to reduce plastic pollution from short lived products. Voluntary measures are unlikely to be effective enough to end plastic pollution as the investments are often riskier and the alternatives to virgin plastics more expensive, hence the importance of public-private cooperation as well as supervisory intervention through appropriate regulations.

The future international legally binding instrument (ILBI) has the potential to support private finance institutions (e.g., banks, asset managers, investors, and insurance companies) in redirecting their financial flows towards solutions that accelerate the end to plastic pollution. This paper contains the contributions and suggestions of the Finance Leadership Group on Plastics and various consulted experts from a private finance perspective in reaction to the Zero Draft[4] prepared by the Intergovernmental Negotiating Committee (INC) Secretariat. The Finance Leadership Group on Plastics is a UNEP FI-Convened group of financial institutions that provides input and suggestions to stakeholders involved in the negotiation organised by the INC. The focus of the leadership group is on the desired outcomes for banks, insurers, and investors to play their role in achieving the objective of the future ILBI. The leadership group also aims to build readiness in the global finance sector to act on plastic pollution through awareness raising, capacity building, and target-setting support.[5] For the outreach to investors, going forward, the leadership group will continue to collaborate with the Principles for Responsible Investment (PRI), with the objective of mobilising a wider community of financial institutions on the plastics agenda. Prior to INC-2, the Finance Leadership Group on Plastics published '*Ten key messages to align financial flows with the objective of ending plastic pollution*'.[6] This paper aims at analysing how and where the Zero Draft already includes the requirements needed to redirect financial flows from all sources towards ending plastic pollution. The paper also discusses how the Zero Draft could be strengthened and could be guiding the required regulatory framework to be developed. Some of the main points that Member States could consider strengthening in the Zero Draft in this perspective are:

i. to include in Part I of the Zero Draft an objective to align financial flows from all sources with the objective of the ILBI—in order to send a strong message on the imperative to redirect financial flows, similar to the message sent in the Paris Agreement, article 2.1 c and the Kunming-Montreal Global Biodiversity Framework, Goal D.
ii. to include in Part II of the Zero Draft a cross-cutting obligation to align financial flows from all sources with the objective and targets of the ILBI and to create the mandatory framework and enabling environment for finance mobilisation.

These two points, as well as other proposed texts for consideration in response to the Zero Draft, are summarised in Table 1 below.

This paper also explores what type of financing is required along the plastics value chain and what type of finance actors need to be mobilised, to finance the system change required to end plastic pollution. This is done through three major redirections of financial flows to enable the three required market shifts identified in UNEP's Turning off the Tap report: the first redirection of financial flows towards increasing reuse business models (Reuse), the second redirection towards increased safe and environmentally sound recycling (Recycle), and the third redirection focused on reorienting and diversifying towards alternative materials and plastics (Reorient & Diversify). These three redirections are needed in addition to reducing the use of plastic products and dealing with existing pollution.[7] What emerges from this preliminary analysis is that public finance actors and private finance actors have complementary roles to play along the plastics value chain, which are both equally important. The lessons learned from the redirections that have happened as part of climate finance, can be used to inform the redirection of financial flows to solutions that end plastic pollution. Private finance plays an important role in climate finance, as it represents around half of climate finance and has still significant potential to increase in volume. Similarly, it will be crucial to the success of the future ILBI on plastics to mobilise private finance, and to leverage more private capital alongside public finance.

1. Introduction: As part of business-as-usual, financial capital will not sufficiently be redirected without policy intervention

The Zero Draft of the ILBI recognises that finance mobilisation will be crucial to the success of the new legally binding instrument. This is reflected in the Zero Draft, Part III.1 and in Part II.7. Finance mobilisation includes, *inter alia*:

- a robust financing mechanism, which is a key component of the ILBI (see Zero Draft, Part III. 1 paragraphs 4 to 8).
- strong Extended Producer Responsibility (EPR) mechanisms supported and funded by national and regional action plans, modeled based on a global EPR scheme[8] (see Zero Draft, Part II. 7 proposing several options to establish EPR mechanisms).
- effective regulation by Member States, such as mechanisms like levies, taxes, and fees reflecting the internalisation of environmental and socio-economic externalities.[9] Without such effective regulation, many sustainable solutions may struggle to compete on financial and economic terms with virgin plastic production (see Zero Draft, Part III. 1 paragraph 9, "Each Party shall establish a plastic pollution fee, to be paid by plastic polymer producers").
- mobilising finance from private sources, alongside finance from public sources (see Zero Draft, Part III. 1 paragraphs 1 & 10).

This paper focuses on mobilising finance from private sources. Indeed, despite these financial aspects mentioned in the provisions of the Zero Draft, the ILBI's current provisions on financing insufficiently address the concern that under a system change scenario, private financial capital will need to be massively redirected to meet the objective of the ILBI.[10] A system change to end global plastic pollution requires the redirection of financial flows away from the increased linear production of virgin plastics towards the financing of circular systems that reduce the problem by eliminating the use of unnecessary or problematic plastics and hazardous chemicals in favour of environmentally and chemically safe[11] plastic materials and products. Financial flows will need to be redirected towards investments that transform the market from linear to circular, gradually replacing the single and problematic use of virgin plastics by promoting the principles underlying the redirections towards reusing, recycling, reorientation and diversification. Increased capital will also be required to eliminate the use of unnecessary or

problematic plastics and hazardous chemicals by prioritising high-value durable uses and remediation of existing plastic pollution, including the adequate management of plastics that cannot be recycled.[12]

The instrument will need to draw sufficient attention amongst negotiators to redirect financial flows by decreasing the business-as-usual lock in of financial capital favoring the continued expansion of the global mass balance of virgin plastic production and consumption[13] while increasing the availability of financial capital for solutions that end plastic pollution.[14]

Box: What can be learned from climate finance?

The instrument to end plastic pollution can benefit from lessons learned from climate finance to ensure the redirection of financial flows in the plastics value chain. Climate finance flows almost doubled between 2011 and 2020, from USD 364 billion to USD 850 billion, and private finance represents around half of global climate finance.[15] Public finance flows have been pivotal for investment in hard-to-abate sectors and still have a crucial role to play to unlock private finance, which has increased at a slower pace (4.8% growth rate in the private sector vs 9.1% in the public sector).

However, current climate finance is only a fraction of what is needed to achieve the goals of the Paris Agreement. Some of the key actions identified to scale up and accelerate climate finance will be to adopt holistic sectoral strategies, enhance public-private coordination, putting in place policies to create an enabling environment for private finance mobilisation—especially through reducing technology costs, promoting innovation in hard-to-abate sectors, scaling proven technologies, redirecting fossil fuel support, and creating predictable environments that accelerate net-zero transition—and improve data availability to channel climate finance towards the most impactful areas.[16]

According to the coalition of central banks, the Network for Greening the Financial System (NGFS), "Given limited fiscal policy space and high debt levels in many Emerging Markets and Developing Economies (EMDEs) after the pandemic, private capital will be vital to finance climate adaptation and mitigation efforts. It is therefore crucial to foster a conducive investment environment, putting in place the right climate policies and using a set of suitable tools to attract a broad range of private investors—including carbon pricing and subsidies, public investment, favorable lending policies, improved climate information architecture (data, taxonomies/classifications, and disclosures), legal and institutional frameworks, and financial regulations".[17]

The provisions of the future ILBI related to finance have the potential to trigger the redirecting of financial flows by setting an objective and a core obligation to align financial flows from all sources with the objectives of the future instrument, and to create the enabling environment for finance mobilisation pathways that can form a roadmap for concrete action.

2. How the provisions of the instrument can support successful redirection of financial flows, including private finance

The Zero Draft for the future ILBI[18] includes a number of finance related provisions that will contribute to creating the mandatory framework required to align financial flows from all sources with the objective of the ILBI, such as in the Zero Draft Part II. 9 Waste Management, paragraphs [6] [5]; Part IV. 3 Reporting on Progress, Option 1; Part IV. 4 Periodic assessment and monitoring of the progress of implementation of the instrument and effectiveness evaluation, a. Effectiveness evaluation; Part IV. 8. Stakeholder engagement, paragraph 2; and Part III.1. Financing, paragraph 10, which stipulates that each Party shall take measures to:

a. decrease financial flows from all domestic and international, public, and private sources, towards projects that result in emissions and releases to the environment[19] from plastics and plastic products across the life cycle, including microplastics; and

b. increase financial flows from all domestic and international, public, and private sources, towards projects that prevent or reduce emissions and releases to the environment of plastics and plastic products across the life cycle, including microplastics, including for the development of adequate waste management infrastructure.

The table below summarises provisions in the Zero Draft that could be strengthened to create the compelling framework required to achieve the system change of ending plastic pollution by mobilising financial flows from all sources.

Table 1: Proposed possible text to strengthen the Zero Draft to enable alignment of financial flows from all sources, including private finance, with the objectives and targets of the future ILBI.[20]

Finance Leadership Group on Plastics key message	Zero Draft	Proposed possible amendment to strengthen the Zero Draft
1. A clear, measurable, and time-bound overarching objective.	Part I. 2, Option 1 and Option 2	Include in either option: "by 2040"
2. A strong message on the imperative to align financial flows from all sources with the objective of the ILBI.	Part I. 2, Option 1 and Option 2	Add to either option: "through *inter alia* aligning financial flows from all sources with the objectives and targets of the instrument"
3. Cross-cutting core obligation related to finance.	Part II and/or Part III. 1. 10	Add to Part II a new cross-cutting obligation related to finance, in a new clause 14, building on and/or replacing Part III.1. 10, which could read as follows: **14. Financial resources** Each Party shall take measures to mobilise new, additional, stable, accessible, adequate, timely and predictable financial resources from all sources, including domestic, international, public, and private resources, and to align them with the objectives and targets of this instrument, including by: a. decreasing financial flows from all domestic and international, public and private sources, towards projects that result in emissions and releases to the environment from plastics and plastic products across the life cycle, including micro-plastics, b. increasing financial flows from all domestic and international, public and private sources, towards projects that prevent or reduce emissions and releases to the environment of plastics and plastic products across the life cycle, including micro-plastics, including for the development of adequate waste management infrastructure, c. Leveraging private finance for solutions to end plastic pollution, promote innovation and support circular economy solutions along the entire plastics value chain, including through public-private finance, blended finance, concessional finance and de-risking mechanisms, policies, and schemes to encourage or incentivise private finance to invest in solutions to end plastic pollution, and ensuring that the projects contribute to meaningful and measurable outcomes in plastic waste reduction.

3. Cross-cutting core obligation related to finance. Cont...		d. Stimulating innovative financing schemes, globally and nationally, to solutions, innovation, technologies, and business models that end plastic pollution at all stages of the plastics value chain and stimulate a safe and just circular plastic economy. e. Including in financing schemes the full externality costs of plastics to the planet, people, and society. f. Optimising co-benefits and synergies of financial flows between solutions to end plastic pollution and solutions targeting the climate and biodiversity crises. g. Developing harmonised sustainable finance taxonomies and metrics for the full plastics value chain and integration into financial regulatory and supervision frameworks to address plastic pollution.
4. Harmonised sustainable finance taxonomies and metrics.	N/A	See proposed new Part II.14. Financial resources, g.
5. Mandatory disclosure requirements on plastic related risks, dependencies and impacts.	Part II. 13	Add, in Part II. 13. 1. a sub-paragraph d.: d. Require producers, importers and financial institutions to regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on health and on the environment resulting from the production, use and discharge of plastics across their life cycle, along their operations, supply and value chains and portfolios, in compliance with minimum disclosure requirements contained in Annex [X] in order to progressively reduce negative impacts of plastic pollution, increase positive impacts, reduce plastic pollution-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production. Disclosure requirements shall build on existing disclosure requirements where relevant and promote synergies and consistency between them.
6. Incorporation of plastic pollution into financial regulatory and supervision frameworks.	N/A	See proposed new Part II. 14. Financial resources, g.
7. Catalysing of private finance.	N/A	See proposed new Part II.14. Financial resources, c., d. and e.
8. Optimisation of co-benefits between financial solutions for plastic pollution, climate, and biodiversity.	N/A	See proposed new Part II.14. Financial resources, f.

9. Capacity building for Member States and the financial sector.	Part III. 2	Part III. 2. could be more specific on capacity building requirements related to finance, for Member States on blended finance, concessional finance, and de-risking mechanisms, and for financial institutions on the plastics value chain. Read more in section 2.9 below.
10. Clear definitions *inter alia* of financial flows from all sources, plastics, plastics value chain, and plastic pollution	Annexes	Include *inter alia* a definition of financial flows from all sources, including both public and private financial flows, in addition to a clear definition of plastics value chain and all aspects of plastic pollution.

The following sections explain the rationale for the proposed amendments to the provisions of the ILBI.

2.1 A clear, measurable, and time-bound overarching objective

A clear, measurable, and time-bound objective can form the basis for a quantifiable and actionable transition pathway for financial actors to align the composition of their financial portfolios with the objective of the ILBI.

The objective needs to be an overarching and holistic objective which is simple and clear to understand and communicate. It needs to be measurable and possible to monitor, focused on both quantity and quality. It also needs to be time-bound, with a specific timeframe informed by available science and scenarios to end plastic pollution. In this respect, it is important to set an objective with a time horizon by 2040 (Zero Draft, Part I. 2).

An overarching objective with clear, measurable, and time-bound targets related to specific aspects of the plastics value chain will help financial actors, including investors, banks, insurances, and asset managers to redirect financial flows towards solutions that end plastic pollution. Financial actors will be able to use the clear, measurable, and time-bound overarching objective as a basis for both long-term and interim targets (e.g., 2030, 2035) as well as other pathways that prioritise investments in companies and projects that aim at reducing plastic pollution.

2.2 A strong message on the imperative to align financial flows with the objective of the legally binding instrument

The financial mechanism to be determined in the ILBI can draw upon the lessons learned from the field of climate finance, since the Paris Agreement contained a milestone to unlock climate financial flows from all sources. In the Paris Agreement, the objective was set to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (article 2.1 c).[21] This objective could serve as a

model for the ILBI to end plastic pollution. Even though climate finance flows are still far away from being sufficient to meet Paris Agreement objectives[22], climate finance is steadily growing.[23] This strong message sent to Member States, as well as to public and private finance actors, has been repeated in the Kunming-Montreal Global Biodiversity Framework (GBF). The GBF, through its Goal D and through various finance related targets,[24] recognises the crucial importance of public and private finance and aims at creating the enabling environment to mobilise and redirect financial flows. Ending plastic pollution will, as with climate action and biodiversity preservation and restoration, require mobilising and redirecting financial flows from all sources. The ILBI has the potential to send this strong message to Members States with an objective explicitly calling to align financial flows with pathways towards ending plastic pollution, which could be reflected in Part I. 2 of the Zero Draft with the proposed language added to either option: "through *inter alia* aligning financial flows from all sources with the objectives and targets of the instrument".

2.3 Core obligation to align financial flows and create the mandatory framework and enabling environment for finance

In addition to directing financial flows to the areas typically included for the implementation of international frameworks and instruments (including financial support to the Secretariat, financial support to developing countries and economies in transition, including enabling activities and incremental costs related to compliance with the new commitments)[25], it is crucial that the ILBI defines and enables the required redirecting of financial flows from all sources towards solutions to end plastic pollution. This can be done through clear, measurable, and time-bound science-based targets which will determine where financial flows need to increase or to decrease along the plastics value chain, and for cross-cutting topics such as Just Transition, to achieve the ILBI overarching objective. In this respect, it is positive that the Zero Draft (in Part II and its annexes) includes specific targets along the plastics value chain.

In addition, it is important that the ILBI includes a core obligation related to finance, mandating the alignment of financial flows from all sources with the objective and targets of the ILBI and the establishment of the framework and environment that will enable such alignment. The Zero Draft, in Part III. 1. 10 includes obligations to decrease financial flows from all sources towards projects that result in emissions and releases to the environment from plastics and plastic products across the life cycle, including microplastics, and to increase financial flows from all sources towards projects that prevent or reduce emissions and releases to the environment of plastics and plastic products across the life cycle, including microplastics, including for the development of adequate waste management infrastructure. While such a provision on increasing and decreasing financial flows is welcomed by finance, the impact of this provision would be strengthened by including it as a cross-cutting obligation in Part II. A cross-cutting obligation on the increased and decreased financial flows required from all sources along the plastics value chain could also be strengthened by specifically mentioning that the obligation should align with the objectives and targets of the ILBI. As mentioned above,

in order for such a cross-cutting obligation to be effective, the targets under the ILBI, especially in Part II, would need to be science based, set against a baseline and time bound with short-, medium- and long-term horizons to define pathways to end plastic pollution, as suggested in footnotes 3 and 4 of the Zero Draft, mentioning baseline, timeframe(s) and target. Such a cross-cutting obligation could also contain a number of the requirements needed to mobilise and redirect financial flows from all sources in a single provision (read more in sections 2.4 to 2.9 below). This could be reflected in the Zero Draft by adding to Part II a new cross-cutting obligation related to finance, in a new clause 14, building on and/or replacing Part III. 1. 10.

2.4 Harmonised sustainable finance taxonomies and metrics

The absence of harmonised sustainable finance taxonomies and metrics to identify and measure progress in redirecting financial flows away from activities that contribute to plastic pollution towards solutions to end plastic pollution is a barrier for the redirection of financial flows at a global scale.

Different actors are needed to take away these barriers:

- Member States themselves play a central role in developing sustainable finance policies including finance taxonomies and metrics related to plastic pollution.
- Regulators and financial market authorities have the responsibility of supervision regarding financial institutions' actions. The scope of regulators' supervisory tasks could be extended to ensure compliance with harmonised taxonomies and metrics that promote sustainability in the plastics value chain (read more in section of the paper 2.6 below).
- Financial institutions can use these taxonomies and metrics to identify and classify the economic activities to redirect financial flows.

In this respect it is positive that the Zero Draft includes in Part IV, 4. A. paragraph 3, f, which is a requirement for the governing body to monitor progress including "Reports and other relevant information on the alignment of financial flows from all sources with the instrument's objective and targets". Additional language could be included in the ILBI in a cross-cutting obligation related to finance, as suggested in the table above.

2.5 Mandatory disclosure requirements on plastic related risks, dependencies and impacts

A significant barrier to informed decision-making in the financial sector is the lack of reliable disclosures on plastics. Global harmonisation of plastic-related data is necessary for the achievement of consistent, comparable, and robust disclosure data. This is necessary for financial institutions to make informed decisions. Less information means less certainty for financial actors.

Some efforts to develop data harmonisation are already underway. A few frameworks already exist to guide voluntary disclosure containing data points related to plastic pollution. However, there is a lack of harmonisation across the frameworks, which is demonstrated by the lack of unique definitions for plastics, or by only collecting data on a limited set of plastic product types, often limited to plastic packaging (as is the case with the Global Commitment[26]), or by limiting data collection to one plastic life cycle stage, such as waste management (as is the case in the Global Reporting Initiative's GRI 306: Waste 2020 framework[27]).

When a company is not transparent about how it is addressing plastics issues, financial actors cannot ascertain the true landscape of physical, transitional, reputational, and liability-related risks associated with the company's activities. For example, a company's growth prospects may be intrinsically tied to single-use plastics. It is thus important that finance actors be informed on how the company accounts for risks including physical risk, transition risk and liability risk—physical risk linked to plastics include the impacts on carbon emissions and damage to ecosystems and biodiversity due to single-use of plastics and the corresponding pollution; transition risks arise from the growth in legislation including bans or taxes in an attempt to regulate single-use plastics; and finally liability risks come from the increased environmentally related litigation worldwide. This type of risk information is vital for financial actors to accurately assess the risk premium associated with investment in any plastics related company.

Some voluntary efforts to develop disclosures related to plastics based on data harmonisation efforts are underway, such as best practice guidelines developed by the Global Commitment.[28] Plastic-related disclosures were included in Carbon Disclosure Project (CDP)'s global environmental disclosure platform for the first time in 2023. CDP[29] began this process by requesting 7,000 actors across the plastics value chain to disclose on the topic of plastics related risks with the aim to build a plastic disclosure mechanism comparable to carbon emissions related to business activities –ensuring that plastic-related disclosures inform evidence-based, data-driven decision-making and eventually becomes a business norm. In a consultation conducted by the organisation during 2022, 44% of CDP's investor signatories confirmed that they were interested in plastic-related disclosure data.

However, voluntary harmonisation alone is not enough. The future ILBI represents a unique opportunity to drive data harmonisation at the global level by including a mandatory corporate disclosure mechanism that both:

- covers plastic-related risks, opportunities, dependencies, and impacts with a standardised minimum set of data related to the entire plastics value chain and based on common definitions, taxonomies, targets and metrics, and
- is clearly linked to the ILBI's national monitoring and reporting process.

Consistent, comparable, and high-quality data on plastic-related corporate information obtained through large scale corporate disclosure, will enable financial actors to direct their investments towards activities and companies that accelerate the end to plastic pollution and the mitigation of waste volumes in general. At the same time, robust economic data sets covering Member States' economies will allow financial actors to identify the gaps in technology, infrastructure and capacity, and to mobilise

capital flows towards both public and private sector activities that offer solutions to address those gaps. Unfortunately, disclosures themselves are never enough to deliver actionable transition pathways. The disclosures need to be supported by financial regulatory and supervisory frameworks that can mandate credible transition plans as the basis for these financial plastic disclosures. (read more in section 2.6 below)

The Zero Draft includes, in Part II. 13, mandatory disclosure requirements by Member States, producers and importers. It is important that mandatory disclosures also (i) apply to financial institutions and (ii) cover risks, dependencies and impacts related to plastic pollution. The inclusion would align with provisions in other international frameworks, such as the Kunming-Montreal Global Biodiversity Framework target 15.This would create the appropriate requirements to then allow Member States to report on progress as per Part IV, 3. Reporting on progress, Option 1, according to which "Each Party shall take measures to ensure mandatory disclosures from businesses, including the financial sector on their activities and financial flows from all sources related to plastic pollution and related sustainable finance practices". Furthermore, it would allow the governing body to conduct the evaluation of effectiveness of the implementation including "Reports and other relevant information on the alignment of financial flows from all sources with the instrument's objective and targets, (…)" as per Part IV. 4. A. point 2 of the Zero Draft. Please see the table above for proposed amendments to strengthen the Zero Draft, Part II. 13.

2.6 Incorporation of plastic pollution into financial regulatory and supervision frameworks

The absence of reliable financial regulatory and industry supervisory frameworks that incorporate plastic pollution forms a barrier which prevents the private financial sector from acting. To build a pipeline of bankable projects in the plastics value chain, financial institutions will need reliable financial regulatory and industry supervisory frameworks.

Financial regulatory frameworks can stimulate more transparent financial disclosures based on mandatory disclosure requirements that reflect plastic related risks and impacts. To be comparable these plastic disclosures need to be based on common definitions, taxonomies, and metrics. Mandatory financial regulatory frameworks related to plastic pollution can mandate institutional investors (and other financial institutions) to identify and engage with corporates in the plastic value chain, based on their financial investments. This is relevant considering the amount of pension fund assets, which exceeded USD 35 trillion at the end of 2020, of which 75% are equities and bonds.[30] Together these institutional investors own a substantial share of companies in the plastics value chain.

Some financial institutions have chosen to pre-empt regulatory obligations and voluntarily begin their thematic engagement on plastics. However, most have not yet identified to which extent their financial exposures are contributing to plastic pollution. Around 185 investors with USD 10 trillion in combined assets under management in cooperation with the Dutch Association of Investors for Sustainable Development recently called for

urgent action to reduce plastics. Their call addressed intensive users of plastic packaging.[31] The Business Coalition for a Global Plastics Treaty supports an ambitious international legally binding instrument to end plastic pollution and is endorsed by a number of financial institutions.[32] Furthermore, the Principles on Responsible Investing (PRI) published investor engagement guides for plastics issued on behalf of members of the PRI.[33] Thematic engagement on plastics by the financial sector is expected to grow globally if the ILBI makes the incorporation of plastic pollution into financial regulatory and supervisory frameworks a global obligation for all Member States and their financial market actors.

In order to be effective, global implementation of a harmonised regulatory framework is imperative. Along the lines of what is suggested by the UN High-Level Expert Group[34], non-state actors need to move from voluntary initiatives to regulated requirements whereby fragmented regulatory regimes should be avoided. To achieve such a level playing field and to ensure that a consistent and reliable regime is created, governments and regulators need to work together, e.g. by launching a new Task Force combining a community of international regulators and experts in designing a globally harmonised regulatory framework in response to the suggested core obligation of aligning financial flows from all sources.

2.7 Catalysing of private finance

One barrier to mobilising private finance towards some of the solutions to end plastic pollution is the insufficient risk adjusted returns these solutions offer. To unlock private finance, it is important that the future ILBI (i) promotes and enables de-risking solutions, especially for innovative technologies and business models and activities with low market maturity level[35], and (ii) enhances the economic and financial viability of solutions to end plastic pollution.

Private investment focused on ending plastic pollution and circular solutions along the entire plastics value chain can be de-risked in various ways. For instance, through policies, public-private partnerships, blended finance, concessional finance, guarantees or first loss positions. The financing mechanism that may be established by the future ILBI (see Zero Draft, Part III. 1 paragraphs 4 to 8, according to which “The Mechanism shall include financial resources from all sources, domestic and international, public and private”) has the potential to enhance and scale up de-risking mechanisms. De-risking also benefits from the optimisation of co-benefits and synergies "between financial flows for financial solutions to end plastic pollution and financial solutions targeting the climate and biodiversity crises (read more in section 2.7 below). Financial de-risking will also require more elaborate capacity building for governments on private finance’s role and mobilisation, and for the finance sector on the plastics value chain (see 3.8 below).

Different financial actors need to collaborate to de-risk opportunities and redirect financial flows in the plastics value chain[36] via public-private blending of finance and innovative finance mechanisms:

1. **Public finance sector institutions** e.g., governments with their national budgets (National Treasury), multilateral development banks, public development banks

and development financing institutions, public financial institutions initiated by governments with an explicit official mission to fulfill public policy objective.[37]

2. **Philanthropy/charities:** Charitable funds can financially reinforce efforts of both public and private sector as philanthropy and charities are not in search of high returns and solely focused on societal impacts. Sometimes crowdfunding, angel investors and some types of impact investors can also fall into this category.
3. **Private (finance) sector institutions:** Private finance includes the corporate sector, in general banks, insurance and professional investors, impact investors, ESG investors, ESG funds, pension funds, venture capital and commercial finance. The role of private institutions is important because of their experience with due diligence on non-financial and financial risks. Their sector knowledge can be elaborated because financial institutions receive funding requests from many competing parties, across the plastics value chain. This helicopter view on the value chain can help to identify and avoid risks in plastic related projects.

To reduce the physical, transition, chemical, environmental, social, and economic risks[38] associated with plastic pollution and associated investment portfolios, financial institutions need to actively de-risk their financial portfolios in close cooperation with the public finance sector. However, the blended finance, financial guarantees or first loss schemes can only work effectively if the risks are sufficiently studied and understood. Financial institutions can therefore benefit from engagement with risk specialists in the insurance sector on financial and non-financial risks, as the due diligence processes of insurers dive deeply into emerging risks associated with their insured activities.[39] Insurance offers the essential function of property and casualty insurance to mitigate the occurrence of unintended risks. Its aim is to reduce financial uncertainty and make accidental losses manageable. By managing risk, insurance enables companies to take risks and innovate while providing an incentive for loss prevention. Risk management is thus an important part of the insurance sector's services since proper identification of risks is crucial for preventing losses and for settling claims. While the sector realises that identifying the origins and responsible parties for alleged damages or injuries related to plastics is challenging, they expect that liability risks related to exposure to chemicals commonly used during plastics manufacturing are likely to increase.[40]

In order to attract private finance, it is also important to enhance the economic and financial viability of solutions to end plastic pollution and to support long-term market stability through appropriate policies explicitly designed with a medium to long term horizon (e.g., at least five, ten to fifteen years forward looking).

As recycled plastics are substitutes for primary plastics, their quality and price need to "match" the characteristics of virgin plastics to ensure financial viability of this type of solutions. Without regulation (e.g., EPR) and without internalisation of costs (e.g., by levy, pricing the externalities[41] of fossil-based feedstock), many solutions will not be economically viable as they can simply not compete with virgin plastic production if the price of externalities is not fairly reflected. A first step is getting the accounting and disclosures of plastic impacts published. This requires accounting and disclosure services for the environmental impacts and externalities associated with plastics. The call for such services is growing, together with the increasing focus on environmental sustainability and the requirement to audit and monitor achievement of reduction targets.[42,43]

Adequate pricing mechanisms for recycled plastics will be important to foster profitability and scaling up of recycling activities and enhance demand and use of recycled plastics. The OECD Global Plastics Outlook report highlights that "the recent decoupling of prices for primary and secondary (recycled) polyethylene terephthalate (PET) in Europe and increasing innovation in recycling technologies are positive signs that policies (that influence the pricing mechanism) are working."[44]

The Zero Draft (Part II. 1. 9) provides for the establishment of a plastic pollution fee to be paid by plastic polymer producers. If well designed, such fee could help to address economic viability of solutions, as it may have the effect to increase the price of virgin plastics and make recycled contents more competitive.[45,46] Other policies could for instance be a financial bonus for the use of recycled plastics.[47] The same positive effect could be triggered by the" removal of subsidies and other fiscal incentives to the production of primary plastic polymers" (Zero Draft, Part II.1. [3] [5] [4]) which are artificially lowering the price for virgin plastics. In 2022, as part of the broader picture, subsidies worldwide for fossil fuel consumption increased to over USD 1 trillion, according to the International Energy Agency's estimate, the largest annual value on record.[48] Furthermore, if the ILBI were for example to mandate the phase out of high-risk plastics, mandate reuse and redesign of materials, the instrument could make solutions to end plastic pollution more economically viable, as it would provide more certainty to actors in the plastics value chain.

Since few plastics can be returned to their original use due to safety risks, exclusive focus on economic viability can cause problems in Member States with less sophisticated recovery and recycling infrastructure. Segregation of plastics is key to ensure quality and safety. Policy that improves the economic viability of solutions will only work effectively if there is a guarantee for environmental and chemical safety in the recovery and recycling process.

2.8 Optimisation of co-benefits between financial solutions for plastic pollution, climate and biodiversity

A barrier to the redirection of financial flows in the context of plastic pollution is a tendency to treat it as a stand-alone problem, when in fact, plastic pollution is interconnected with the biodiversity and climate crises. The presence of plastics could dramatically shift the ecology of marine and terrestrial ecosystems. UNEP highlighted in its Plastic Science report: "An altered environment and shifts in biodiversity have potentially wide-reaching and unpredictable secondary societal consequences and may impair ecosystem resilience. Plastics can act in concert with other environmental stressors—such as changing ocean temperatures, ocean acidification and the over-exploitation of marine resources—to cause a cumulative larger and more damaging impact."[49] Plastic across its life cycle contributes significantly to climate change. "In 2015, plastics generated 1.7 billion metric tons of greenhouse gas emissions, equal to 3.4% of global emissions. Some 90% of those emissions came from plastic production and conversion from

fossil fuels. By 2050, emissions from the plastics life cycle could quadruple, reaching 15% of the global carbon budget and leaving the 1.5-degree target practically out of reach."[50] Pollution, including plastic pollution, is one of the five main drivers of biodiversity loss.[51]

Mobilisation of financial flows will benefit from optimising the co-benefits and synergies between financial flows for financial solutions to end plastic pollution and financial solutions addressing the impacts of the climate and biodiversity crises,[52,53] as well as financial governance based on the nexus between pollution, climate change and biodiversity loss.[54]

It is important to take into consideration commercial trends in the plastics value chain aimed at climate change. An example of potential misalignment and additional risk is to finance the construction of recycling plants for rigid plastics, while commercial businesses are moving towards flexible plastics to meet lightweighting and carbon reduction objectives. To avoid stranded assets, the ILBI needs to capture commercial market trends, to align the financial flows better with current and upcoming changes in the plastics value chain to meet climate mitigation targets. The instrument can mandate that financial actors consider both the plastic waste and GHG reduction potential in the transition to a circular economy.

The ILBI needs to explicitly integrate the learnings and cross benefits from climate finance (e.g., green investment, bonds and loans) and biodiversity/nature finance (e.g., blue economy loans and bonds) that can inform the pathway to end plastic pollution for financial actors. To mainstream financing for plastic pollution reduction the instrument can learn from blended finance for climate purposes and from innovative financial instruments that leverage synergies across sectors and across value chains.

It would thus be important that the instrument includes a requirement to optimise co-benefits with solutions for climate and biodiversity loss. Target 19 (e)[55] of the Kunming-Montreal Global Biodiversity Framework can be a source of inspiration for the ILBI and could be included in a new cross-cutting obligation related to finance.

2.9 Capacity building for Member States and the financial sector

The lack of capacity building and preparedness of both governments and the private financial sector form a barrier for redirecting financial flows. This issue needs to be solved through building capacity of financial actors on the opportunities and risks associated to the plastics value chain. The public finance function also needs to engage with the private financial sector to support them in redirecting financial flows to solutions that end plastic pollution. Financial de-risking will require more elaborate capacity building for governments on private finance's role and mobilisation, and conversely for the finance sector on the plastics value chain.

Capacity building will be needed for international, regional, and local governments of Member States on blended finance and public private partnerships (PPP) where private finance plays a role to align financial flows to the objective of the ILBI.

Furthermore, there will be needs for capacity building and training on the plastics value chain, to foster deep understanding of the plastics value chain amongst professionals active in the financial sector. This can facilitate the development and implementation of training and education programs focused on sustainable finance, circular economy principles, and the integration of plastic waste considerations into financial decision-making.

The Zero Draft provides, in Part III. 2, that "Parties shall promote and facilitate innovation and investment in pursuit of new technologies and innovative solutions, and shall facilitate access to essential technologies, including with respect to financial resources and proprietary rights". Part III. 2 could be more specific on capacity building requirements related to finance, for Member States on blended finance, concessional finance and de-risking mechanisms, and for financial institutions on the plastics value chain.

2.10 Clear definitions *inter alia* of financial flows from all sources, plastics, plastics value chain and plastic pollution

Harmonising definitions at a global level will be essential for the success of the ILBI and for a clear engagement from the financial sector for a successful implementation of the instrument. From a private finance perspective, it is important that the instrument includes *inter alia* a definition of financial flows, including both public and private financial flows, in addition to a clear definition of plastics value chain and all aspects of plastic pollution.

Since plastic pollution is a complex and global issue, clear definitions are fundamental to an effective financial policy implementation. Precise definitions ensure that all stakeholders apply the agreed rules and objectives of the ILBI in a consistent way. This consistency helps prevent ambiguity for financial actors. The significance of a clear definition of the plastics value chain relates to the fact that plastic pollution originates from all stages of the plastics value chain and cannot be effectively tackled by only improving waste management and recycling. Understanding the entire value chain helps financial institutions to identify all the plastics related risks and opportunities.

Defining how to redirect financial flows will ensure that all relevant sources of funding are put to work to address the plastic pollution crisis. By emphasising the importance of including all financial flows (from all sources, both public and private) the ILBI would recognise that solutions to plastic pollution require the active participation of all financial actors: governments, financial institutions, regulators, data aggregators, standard setters, businesses, civil society and consumers.

2.11 Enabling a just transition for waste workers and SMEs

The UNEA-5.2 resolution on ending plastic pollution recognises the significant contribution made by workers in informal and cooperative settings to the collecting, sorting, and recycling of plastics in many countries.[56]

It is positive to see in the Zero Draft a cross-cutting obligation to implement the changes that follow the just transition principle. The provisions in the ILBI could include text on how this would work in practice, by mentioning:

a. the integration of social frameworks, such as the UN Guiding Principles on Business and Human Rights (UNGPs) into due diligence of plastics projects,[57,58] and

b. positive change that can be achieved via access to finance. Various methods are being explored and experimented for integrating informal sector workers into the financing of projects based on the just transition principle.[59,60,61]

To maximise positive change, Member States need to consider directing their financial stimuli at women and young people, as women[62] and youth[63] are disproportionately represented and face the greatest barriers to accessing finance. The International Labour Organization (ILO) reports that in Asia 85% of young workers (aged 15–24) are in informal employment compared to around 65% of adult workers (25+).[64] There is also a gender gap to be addressed as a study of waste pickers in South Africa showed that women on average earned over 20% less per month compared to their male counterparts.[65] Female leadership and capacity building are needed[66] to improve the access, the ability to collect and transport larger volumes of waste, to tackle existing income disparities and to improve women's upward mobility.

The presence of a significant informal sector raises important social concerns and can form a barrier to the entry of private financial actors, e.g., by lack of formalised legal entity structures to invest in. The informal workers' operations are often limited to recovery, sorting and reselling of plastics. Financial support for the development of informal waste pickers by strengthening workers' organisations is crucial since it enables better access to machinery for plastics processing.[67] Member States can support the further integration and improvement of working and living conditions of the informal sector by legalising the cooperation and integration between formal waste collection services and informal waste picker associations. In low to middle income countries, Member States through their public finance function can offer work opportunities[68] and potentially loans at low interest rates with long payback periods to form SMEs or cooperative legal entity structures.[69]

Building on the just transition principle, SMEs, cooperatives, and waste picker associations deserve extra attention in the ILBI, especially on aspects where they differ materially from larger corporates:

a. Improvement of communications on how to access financial opportunities made available to SMEs and cooperatives by public finance: Many SMEs and cooperatives are not equipped or understaffed to track these public finance offerings.

Furthermore, they often face prohibitive costs to hire qualified personnel to engage with private and public finance. In addition, SMEs in EMDEs face even more difficult access to external funding due to heightened currency and country specific risks.

b. Technology transfer: An underemphasised difficulty for SMEs in emerging and developing markets is that there are constraints on how much capital investors -even development-oriented investors- are able to raise, and constraints on the amounts allocated, that are often smaller due to higher risks. These risks will raise their financial costs when buying technology licenses and when importing goods from abroad in "hard" currency.

c. Capacity building for Member States to address the issue of limited financial "ticket size" of SMEs and cooperatives: Indeed, SMEs are relatively small in financial size compared to the sizes that financial actors (public and private) look for. Some governments and development banks have implemented loans that address the issue of the SME ticket size by pooling projects into a vehicle, through asset backed securities. This pooling can contribute to attracting institutional and private investors. Financial actors also discount SME investment opportunities because these SME sized enterprises may lack the scale to meet multinational buyers' requirements at the required scale and quality of process management systems.

The future ILBI has the potential to create the enabling environment for the private financial sector to act on the just transition principle and incentivise solutions for waste workers, and for smaller SMEs and cooperatives. Expanding existing international relationships, such as the international Plastic Pacts network, can also be an effective mechanism to facilitate cross-border collaboration among Plastic Pact members, to improve SMEs' access to finance, technology transfer and to tackle the issue of financial "ticket size".

3. Required redirections of financial flows

3.1 The imperative to redirect financial flows under a system change scenario

The OECD Global Plastics Outlook[70] provides a system change scenario that models the costs of a global and ambitious policy, compared to business-as-usual. The model indicates that system change costs differ widely across the globe. In the model OECD countries are set to remain the largest consumers of plastics on an average per capita basis by 2060. On the other hand, in absolute terms, the Asia Pacific region currently accounts for the highest share of plastic production (50%) and for the largest contribution to global plastic waste by volume (46%).[71] While the model used by the OECD assumes that under business-as-usual OECD countries will double their plastics use by 2060, emerging economies in Asia and Sub-Saharan Africa are expected to show the fastest growth rates in plastic generation and waste. Asia could triple use and Sub-Saharan Africa could see a six-fold increase of plastics use. Under the same scenario, rates of plastic waste mismanagement would slightly decrease in OECD countries and would materially increase in fast-growing economies in Sub-Saharan Africa and Asia. Similar to addressing climate finance at a global level, these numbers underline the need for the ILBI negotiation to facilitate the discussion on technology transfer and financial support flowing between Global North and Global South. To maximise the investment impact of the redirection of financial flows, the amount of capital invested in non-OECD countries, will differ from OECD countries. Country-specific investment approaches are needed, as the financial needs will be dictated in great part by the existing local environment, considering the needs of the population, its location (high-density areas, medium and rural areas have different needs), the role of the informal sector, the contribution of the various economic sectors as well as the types of plastics that are used.[72] The OECD model does not directly address the redirection of financial flows but gives important modelled outcomes that illustrate redirection of financial flows related to taxes and GDP, and comments on the regional variation as well as on who will bear these costs.

The OECD Global Ambition Policy Scenario (by 2060)[73] illustrates the potential environmental and economic impacts of different policy packages that could stimulate redirection of financial flows to end plastic pollution and promote circularity by 2060. It includes the following scenario outcomes by 2060 compared to the baseline of 2019:

1. The scenario outcome for plastic waste reduction is that by 2060 plastic use and waste are reduced by a third below compared to the mass balance of the baseline year of 2019.

2. Plastic leakage reduction: the scenario outcome is that plastic leakage to the environment is almost eliminated.
3. Tax related measures: the tax on plastics use globally increases to USD 750/metric ton by 2030 and USD 1,500/metric ton by 2060. Tax on packaging is one-third higher than in the baseline.
4. Recycling rate: global recycling rate increases to almost 60%.
5. Market share of secondary plastics: market share of secondary plastics surges from around 10% in 2019 to 41% by 2060.
6. Mismanaged waste reduction: mismanaged waste falls to near zero, to 6 million tonnes, down from 153 million tonnes in the baseline year of 2019.
7. Plastics use and waste growth: leakage to the environment is substantially reduced by 85% compared to the baseline. Macro plastic leakage (typically larger than five millimetres in size, visible to the naked eye) is almost eliminated. Microplastic leakage (typically smaller than five millimetres in size) is reduced by 9% compared to baseline projections.
8. GHG emission reduction: the global ambition package of measures reduces emissions by 2.1 billion tonnes of CO_2 equivalent, supporting climate goals.
9. Global GDP impact: global GDP is 0.8% lower compared to the baseline.
10. Regional variation is present in this model, since the majority of costs are borne by non-OECD countries, as substantial investments in improved waste management are necessary. Sub-Saharan Africa experiences the largest impact, with a 2.8% reduction in GDP below the baseline. This imbalance between cost outcomes for Member States highlights the need for supportive policies and international financial assistance to protect vulnerable households from exacerbated economic challenges.

The Pew Charitable Trusts and SYSTEMIQ's "Breaking the Plastic Wave" report, published in 2020, presents a comprehensive analysis of the global plastic pollution crisis and offers a roadmap for redirection of financial flows to address the plastic pollution problem for short-lived products. The scenario presented in the report goes into greater detail on how to redirect financial flows across the plastics value chain[74] and the outcomes outline and calculate a significant need for the redirection of financial flows. The model used in the System Change Scenario highlights that:

1. The present value of global investments in the plastic industry can be reduced from USD 2.5 trillion to USD 1.2 trillion between 2021 and 2040. The System Change Scenario requires a substantial redirection of investment away from mature technologies like the production and conversion of virgin plastics, often perceived as economically viable and presenting safe financial investments.
2. The petrochemical industry benefits from global fossil fuel subsidies, estimated at USD 53 billion in 2017. Eliminating such subsidies can make secondary plastic inputs more economically viable.
3. The total cost to governments for managing plastic waste (recovery and recycling) in a low-leakage system under the system change scenarios estimated at USD 600 billion in present value while the total cost to governments for managing waste in a high-leakage system under a business-as-usual (BAU) scenario is estimated to be USD 670 billion. Globally, governments can save USD 70 billion while also reducing leakage of plastics, leading to less pollution.

4. It is important to note that the cost in middle-to-low-income countries is USD 36 billion higher than under business-as-usual but is spread over a 20-year period.
5. The risks related to the linear plastics value chain may be significantly higher than currently understood by financial markets. This is due to the evolving policies, technologies, brand owner strategies, and changing consumer attitudes associated with the shift towards a more circular plastics economy.

UNEP's Turning off the Tap report[75] emphasises that if we continue with a business-as-usual approach, the amount of plastic pollution from unnecessary, avoidable, and problematic plastic products and polymers will substantially grow by 2040. While not covering all plastics, the projected, unconstrained growth of unnecessary, avoidable and problematic plastic products and polymers will lead to severe environmental and economic consequences. The report builds on the System Change Scenario outlined above and continues to further detail the redirection of all financial flows to align economic activity with the objectives of transforming the plastics market by 2040. A major first step to achieve these objectives can be taken by focusing on eliminating problematic and unnecessary uses of plastics in the economy. This alignment to the scenario involves several concrete redirections of financial flows:

1. Reduce financial investment for virgin plastic production by a substantial USD 2.2 trillion.
2. Raise a minimum of USD 600 billion from various sources to support reuse and the development of new delivery models that prolong the lifetime of plastics.
3. Mobilising at least USD 230 billion of financial investments in formal collection and sorting processes, while allocating at least USD 70 billion to enhance recycling technologies and increase recycling capacity with respect for the just transition principle in middle and low-income countries.
4. Secure at least USD 1.7 trillion from various sources to fund the production of sustainable substitute materials and the development of facilities and technologies for managing their end of life.

3.2 Three financial redirections to transform the plastics value chain from linear to circular

As part of the compass to end plastic pollution presented in UNEP's Turning off the Tap report, three market shifts are put forward that redirect financial flows towards a just plastics circular economy, in addition to the need to reduce the use of plastics and deal with legacy plastic pollution: REUSE, RECYCLE, REORIENT & DIVERSIFY.[76]

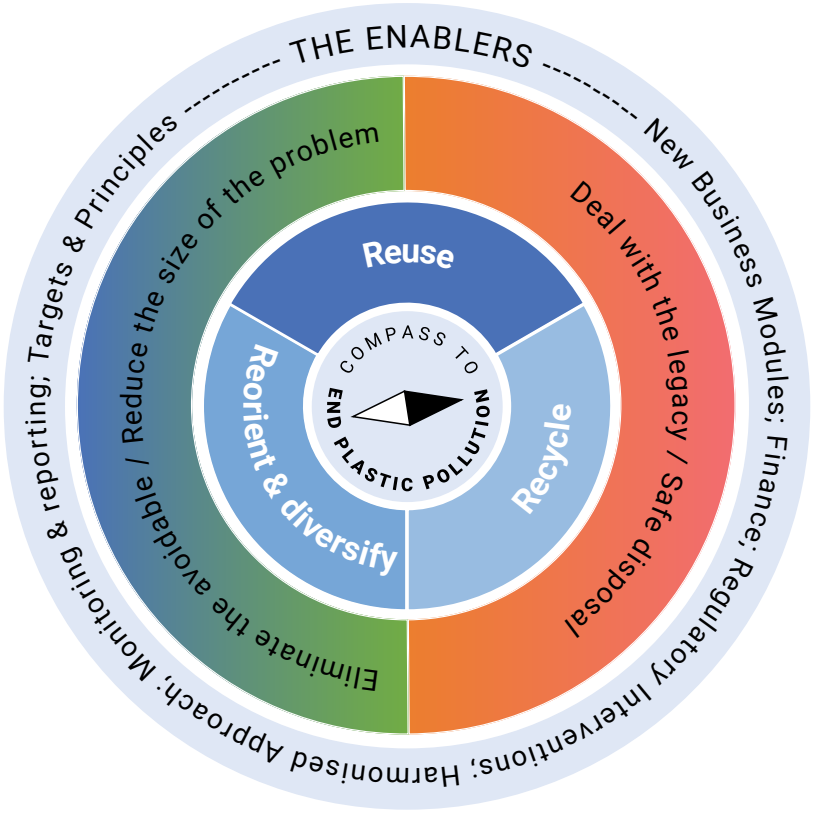


Figure 1: The Compass to end plastic pollution. Source: UNEP (2023), Turning off the Tap

1. **Accelerate the market for reusable products (REUSE)** by decreasing financial flows towards single-use plastic products and increasing financial flows towards reusable products. This recommendation aligns with the following clauses of Part II in the Zero Draft:
   - Part II. 3. a and 3. b: Decrease financial flows to problematic and avoidable plastic products (including short-lived and single-use plastic products) and intentionally added microplastics.
   - Part II. 5. a, 5. b and 5. c: Increase financial flows to product design and performance, to reduce, reuse, refill and repair of plastics and plastics products, and to use of recycled plastic contents.
   - Part II. 6: Increase financial flows towards reducing plastic waste through the reuse of plastics and plastic products.

2. **Accelerate the market for plastics recycling (RECYCLE)** by decreasing financial flows towards projects that contribute to emissions from plastics and increasing financial flows towards recycling initiatives. This recommendation aligns with the following clauses of Part II in the Zero Draft:
   - Part II. 5. c: Increase financial flows towards use of recycled plastic contents.
   - Part II. 9. a and 9. b: Increase financial flows towards waste management and recovery and recycling of abandoned fishing gear.

3. **Reorient and diversify the market for sustainable and safe plastic alternatives (REORIENT & DIVERSIFY)**. This recommendation involves reducing financial flows from environmentally harmful plastics and increasing financial flows towards safe and sustainable alternatives. It aligns with the following clauses of Part II in the Zero Draft:
   - Part II. 1: Decrease financial flows to primary plastic polymers.
   - Part II. 2: Decrease financial flows to chemicals and polymers of concern in plastics.
   - Part II. 3. a and 3. b: Decrease financial flows from problematic and avoidable plastic products, including short-lived and single-use plastic products, and intentionally added microplastics.
   - Part II. 5. b: Increase financial flows towards use of non-plastic substitutes and alternatives.
   - Part II. 5. d: Increase financial flows towards alternative plastics and plastic products that are safe and sustainable.

The following redirections of financial flows presented in Part II of the Zero Draft can be considered cross-cutting for various parts of the plastics value chain:

- Part II. 7 Extended producer responsibility: Decrease financial flows from producers who do not obtain timely certification or lose certification to operate under the EPR regulation and increase financial flows towards those who are certified to operate under EPR regulation to take responsibility for their products' end-of-life management.
- Part II. 8 Emissions and releases of plastic throughout its life cycle: Decrease financial flows from projects with high emissions and pollutant releases and increase financial flows towards projects that reduce or prevent emissions and pollutant releases.
- Part II. 10 Trade in listed chemicals, polymers, and products, and in plastic waste: Decrease financial flows from trade in harmful plastic waste, plastics and products and increase financial flows towards safe waste management and more sustainable plastic alternatives.
- Part II. 11 Existing plastic pollution, including in the marine environment: Increase financial flows to address existing plastic pollution, including in the marine environment.
- Part II. 12 Just transition: Ensure that the redirection of financial flows supports a just transition for affected communities and workers.
- Part II. 13 Transparency, tracking, monitoring, and labelling: Ensure transparency in the effectiveness to combat plastic pollution for all projects across the plastic value chain and organise the transparency on effective spending of the financial flows themselves.

3.3 Leveraging diverse financial actors and resources to redirect financial flows

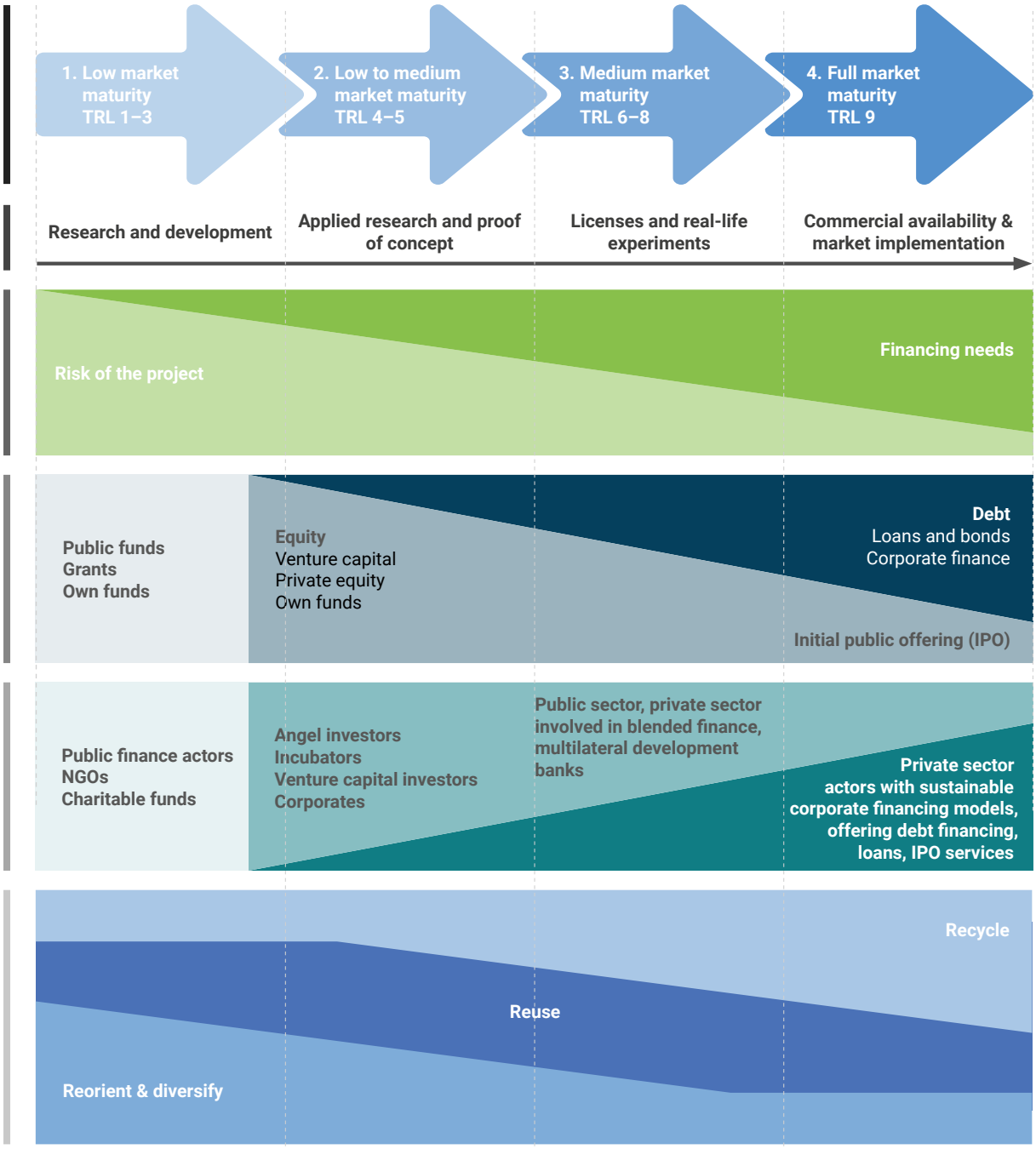
This section illustrates how the redirections of financial flows towards solutions go through different phases depending on their market maturity level, and how they can be supported by a combination of different financial actors and instruments. It also addresses the complexity of financial systems with the various actors, institutions, and instruments involved. Indeed, financial systems can include charities, corporates, public finance institutions, private sector companies, investors, banks, as well as insurance companies. Understanding how these actors are working together and what instruments they have available to them is crucial to effectively drive change.

This section concludes with a set of non-exhaustive examples that represent concrete solutions for each of the three redirections and highlights which finance actors need to support them, depending on the market maturity level of the solution.

It is important for Member States and financial actors to understand how financial flows evolve over time and how different actors with different risk appetites can assure stable and continuous funding for solutions. Different financial actors and instruments bring diverse financial resources and capabilities to the table. Government may provide policy support, de-risking mechanisms, while corporates and NGOs can contribute to the collective effort through their expertise. Finally private sector investments can drive the scaling of innovation to full market maturity. Leveraging the market power, resources and expertise of these diverse actors is essential for effective financial policy measures in the ILBI.

As shown in the graph below, projects or innovative technologies in the plastics value chain go through various stages before they become widely available on the market. This is represented by different market maturity levels depending on the Technology Readiness Level (TRL) of a project, solution or technology. The projects start with research and development, then move on to a proof of concept, get buy-in from the market to use the technology on a larger scale, and finally test it in real-life situations. If test outcomes are successful, the projects reach the point where they are fully available on the market. These different stages matter to financial parties who decide to invest in these projects. A new project or product carries a higher level of uncertainty and risk and will depend on different instruments and actors for funding. What is described below are the most common or typical situations.

Figure 2: Redirections of financial flows across maturity levels and diverse financial actors. Market maturity and TRLs adapted from the article "Reproducible pipelines and readiness levels in plastic monitoring"[77]



Legend:

Market maturity & technological readiness level | Project phases | Risk profile & financing needs | Type of financial instruments | Type of financial actors | Reuse/recycle/reorient & diversify market shifts

At the research and development stage, funding mainly comes from within a project's own structure or via grants predominantly, but not exclusively, provided by public finance actors, NGOs, charities, and personal funds. When projects move toward the proof of concept (PoC) stage and increase the scale of the demonstration, companies mostly rely on their own funding. At this stage, existing partnerships and business networks can give access to equity grants predominantly, but not exclusively, supplied by angel investors, incubators, and venture capital divisions. This type of funding gives the project organisation the resources to work on the exchange of innovative ideas and bring the solution to maturity. To encourage more applied research at scale, Member States could consider including financial incentives like tax breaks or competitive innovation challenges with monetary rewards to assist solutions maturing during this phase.

As projects grow larger and begin licensing and real-life experiments, they need more capital. At this stage, start-up companies continue to do research and testing and funding rounds build on venture capital, private equity, or private credit to attract blended finance with de-risking guarantees offered by national promotion banks or multilateral development banks. At this stage, public financing in combination with private financing can help projects to gain increasing market share. Blended finance facilities can allow governments and private businesses to work together to plan, procure, and/or pay for projects. Blended finance facilities may be supported by Public Private Partnerships (PPPs) with special financing vehicles attached.[78] These financing mechanisms help when a project is too risky for a private financial institution to take on. These blended finance facilities can also offer concessional finance and guarantees[79], or other de-risking support. These financial measures enable projects across the plastics value chain to be properly de-risked and help to get more private investors on board. In addition to direct investments in companies, multilateral development banks might also create funds that bring together different investors. Overall, public finance actors play an important role in helping projects grow and succeed in the market.

At later stages, moving from real-life experiment towards full market availability, projects might get long-term loans from private sector actors with sustainable corporate financing models for example debt financing, loans, or bonds. When a company has a promising outlook, financial institutions might also be tasked to work towards an initial public offering to investors on the stock market.

The tables below include non-exhaustive examples of solutions for each of the three redirections and highlights which finance actors need to support them, depending on the market maturity level of the solution.

Note on methodology: The research methodology of the below table is partially based on qualitative research performed through desktop research, literature review of sources, referenced in the document. All this has been complimented with inputs from expert reviewers obtained through online interviews and written submissions.

Table 2: Non-exhaustive list of examples of solutions across the three redirections of financial flows

Examples of redirection of financial flows	Relevant finance actors depending on level of maturity			
	1	2	3	4
First redirection of financial flows REUSE				
Reduce (Part II. 1)				
Reduce demand for and use of primary plastic polymers, plastics, and plastic products	X	X	X	X
Marketplaces that promote secondary materials and secondhand plastic materials to reduce virgin plastics	X	X	X	X
Financial services e.g., investment funds, sustainability linked loans or sustainability linked bonds targeting virgin plastics reduction	X	X	X	X
Accounting, disclosures of impacts or externalities of plastics to support auditing and monitoring of reduction targets[80]	X	X	X	X
Redesign (Part II. 5. a)				
Redesign solutions for reduce, reuse, refill, repair, including accessibility of spare parts[81]	X	X	X	X
Redesign for performance and lifetime prolongation	X	X	X	X
Redesign towards the use of recycled plastic contents	X	X	X	X
Redesign towards mono-material packaging[82]	X	X	X	X
Refill (Part II. 5. b)				
Refill service based on package-free shops, distribution of bulk goods (refill strategy)[83]	X	X	X	X
Reuse (Part II. 5. b)				
Reuse service focused delivery models[84,85]	X	X	X	X
Second redirection of financial flows RECYCLE				
Collection taking into account the waste hierarchy (Part II. 9. a)				
Recovery services for existing plastic pollution, clean up services, including in the marine environment		X	X	X
Nature based recovery services for remediation of existing plastic pollution	X	X	X	X
Solutions for collection of ghost gear (abandoned fishing gear) including harbour-based facilities for reprocessing ghost gear[86,87]	X	X	X	
Informal waste pickers and global plastic waste collection: methods for integration of just transition principle into financing of projects[88]	X	X	X	X

Artificial intelligence or innovative robotics in recycling for detection and collection of trash[89,90]	X	X	X	X
Recovery: filtering, sorting, and separating technologies suitable for biodegradable plastics[91]	X	X	X	X
Increased recovery of microplastics filtering technologies for remediation of microplastic exhausts (e.g., from plastic cleaning)	X	X	X	X
Waste Management considering the waste hierarchy (Part II. 9. a)				
Enzymatic, microbial biotechnology for plastic recycling[92]	X	X		
Multi plastic mechanical recycling to polymers and monomers (both open and closed loop)[93]	X	X	X	X
Recycling industrial composting facilities for biodegradable plastic materials[94,95]	X	X	X	X
Multi plastic chemical recycling	X	X	X	X

Third redirection of financial flows REORIENT & DIVERSIFY				
Refuse problematic and avoidable plastic products (Part II. 3. a)				
Refuse plastics with chemicals and polymers of concern[96]	X	X	X	X
Refuse problematic and avoidable plastic products, including short-lived and single-use plastic products and intentionally added microplastics	X	X	X	X
Non-plastic substitutes (Part II. 5. b)				
Plastic substitution focused delivery models (e.g., substitution by biodegradable alternatives such as paper) considering their potential for environmental, economic, social, and human health impacts[97]	X	X	X	X
Alternative plastics and plastic products (Part II. 5. d)				
Development of polymers that support real composting (e.g., ambient temperatures)[98]	X	X		
Carbon Capture and Usage (CCU) development to support production of polymers[99]	X	X	X	
Development and use of safe, environmentally sound and sustainable plastics that simplify polymers by design	X	X	X	X
Development of (alternative) biodegradable plastics[100] and polymers resulting in biodegradable biomaterials[101]	X	X	X	X
Production of recyclable plastics additives[102]	X	X	X	X

Legend:

1= Low market maturity, Research and development, TRL 1–3: Grants predominantly but not exclusively by public finance actors, NGOs, charities, and own funds

2= Low to medium market maturity, Applied research & proof of concept, TRL 4–5: Equity grants predominantly but not exclusively by angel investors, incubators, corporates and venture capital divisions

3= Medium market maturity, licenses and real-life experiments, TRL 6–8: Public-private finance with de-risking from the public sector, multilateral development banks

4= Full market maturity, commercial availability and market implementation, TRL 9: Private sector actors with sustainable corporate financing models, offering debt financing, loans, initial public offering services.

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