



Drivers for Circular Economy

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Modern human economy is mostly linear:

Extract → use → discard...

...but matter on Earth is circular

Before we run out of resources, we will run out of planetary capacity to handle human waste and pollution

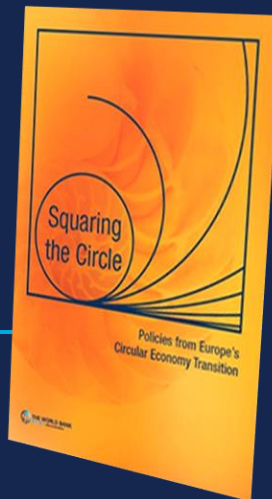
Material consumption pc. much greater in rich countries



Global circularity gap report: 7.1% and shrinking

EU is a global leader in CE, yet...

- Circular business models (CBMs) remain limited in size and value
- Average market penetration of CBMs in EU is 5-10%
- Recycled materials represent only 8.6 percent of raw material input
- Remanufactured products 1.9% of EU manufacturing market share
- In most circular sectors in EU (steel, pulp and paper) secondary materials account for 30-40% of physical output of a sector



Root cause: Linear “use and discard” economy entrenched by inertia plus market and policy failures

- Linear business models more convenient and cheaper because of
 - External costs of extraction, production and waste not counted in product prices
 - Distorted policies and prices (e.g. VAT designed to tax recycled products multiple times, resource extraction subsidized (mining, agriculture))
 - High labor and transaction costs of CBMs
 - Legacy infrastructure, value chains, skills
 - Habits/addictions
- Markets themselves will not make circular business models commercially feasible: Externalities, product differentiation.
- Changes to be initiated by conscious consumers and government policies

Key policy drivers for circular economy

Focus upstream in products' value chains

Adapted from the World Bank's
PLASTICS POLICY SIMULATOR
(PPS)

- **Phase-out of FF and material input subsidies**
- **Efficient pricing of virgin resources**
- **Eco-Modulated Extended Producers Responsibility (EPR)**
- **Eco-Modulated excise taxes on materials and products**
- **No double VAT for recycled products**
- **Material and product standards**
 - Recycled material quality standards
 - Mandatory recycled content requirements
 - Product design standards for reuse, recycling, repair
- **Behavioral nudges**
 - For consumer choices (avoid, reuse, substitute, segregate)
- **Supporting innovation, skills, industrial policies, macro-stability, security, access to finance, social policy**

Broader enabling conditions to address the roots of the circularity barriers

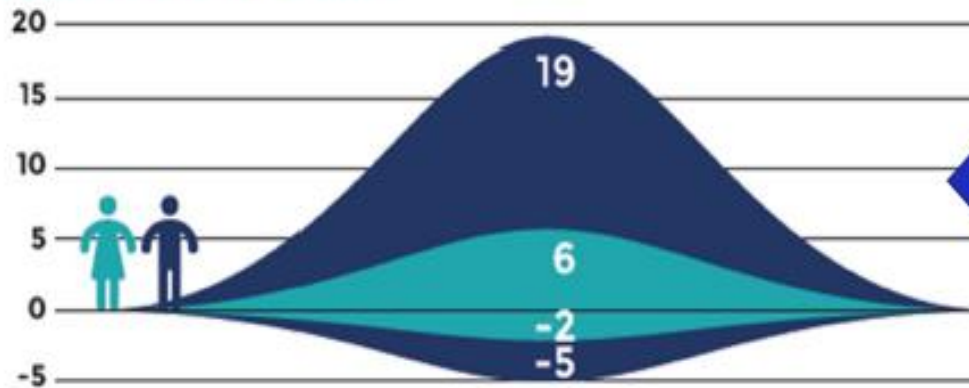
- Make polluters and producers pay for social cost
- Redress level playing field on the markets for linear and circular products
- Credible, consistent and coherent regulations to reduce risks for innovators
- Provide enabling infrastructure for new CE business models, value chains
- Support firms' adjustments through innovation, replication, learning
- Change consumers' habits
- Access to finance and markets
- Support new circular interest groups and partnerships
- Support households and communities unable to adjust and vulnerable to transition risk , including pro-active labor policies



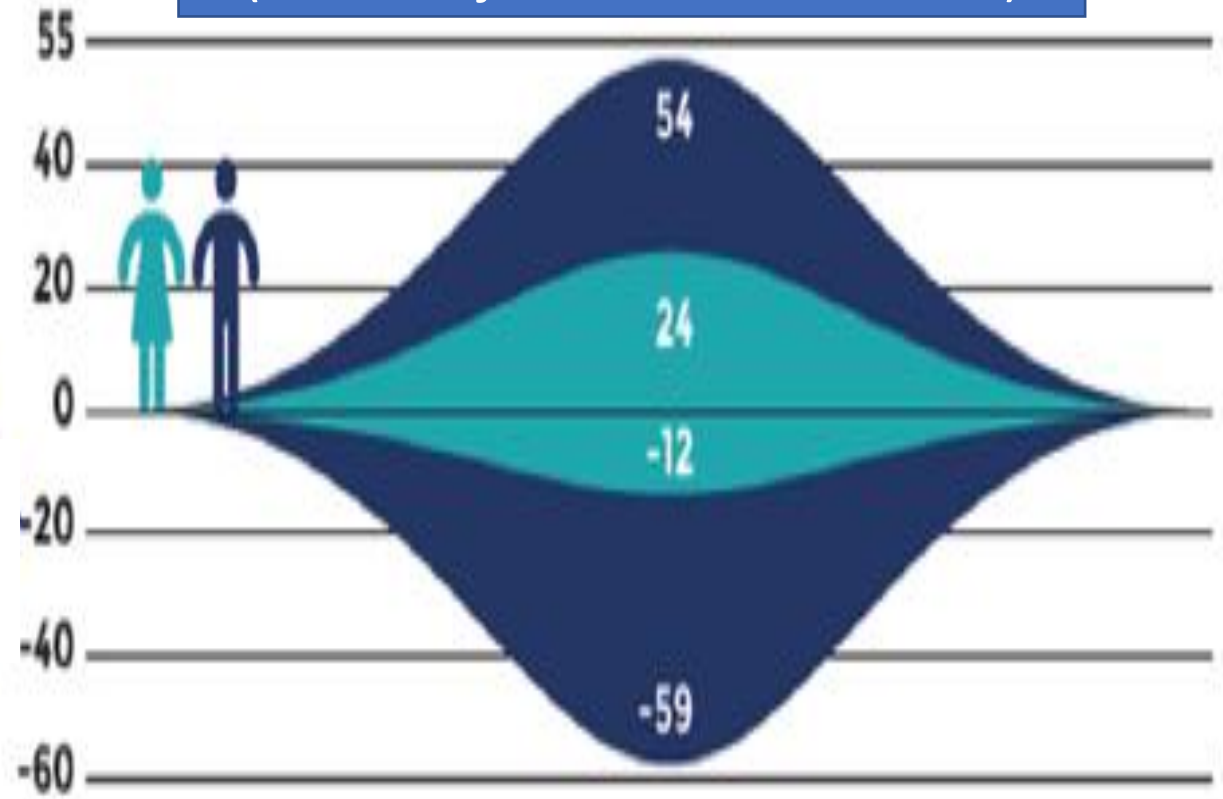
CE transition can be more disruptive than green energy transition, if fully implemented

ILO: Millions jobs created and displaced by gender in 2030

Energy sustainability scenario
(18 M net jobs created in 2030)



Circular economy scenario
(7 M net jobs created in 2030)



..., but first steps should be low-hanging fruits based on countries' comparative strengths and opportunities!

Source: ILO (2019) Skills for Greener Future, infographic

Circularity incentives and opportunities vary by country— where is yours?

CE leaders drive transition

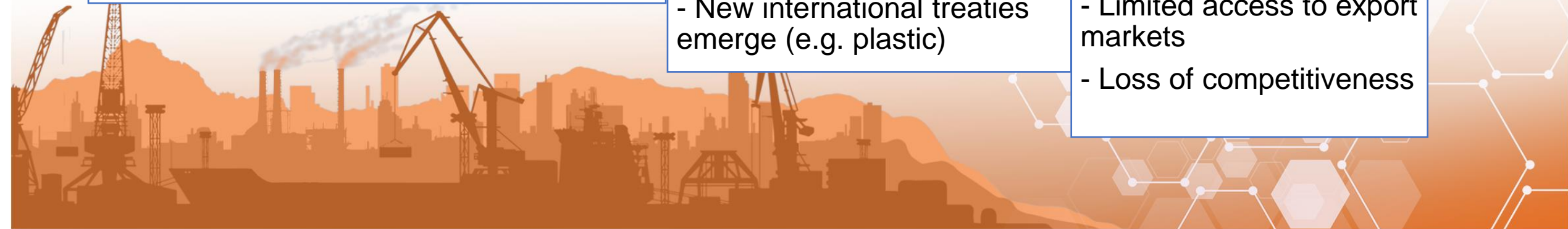
- Primary movers (like EU) take risk
- Disruptive innovations and structural policies (EPR, fiscal incentives, product standards, etc.)
- Consumers shift preferences
- Trade policies to level playing fields
- Followers grab opportunities, new international treaties (e.g. plastic)

Followers harness opportunities

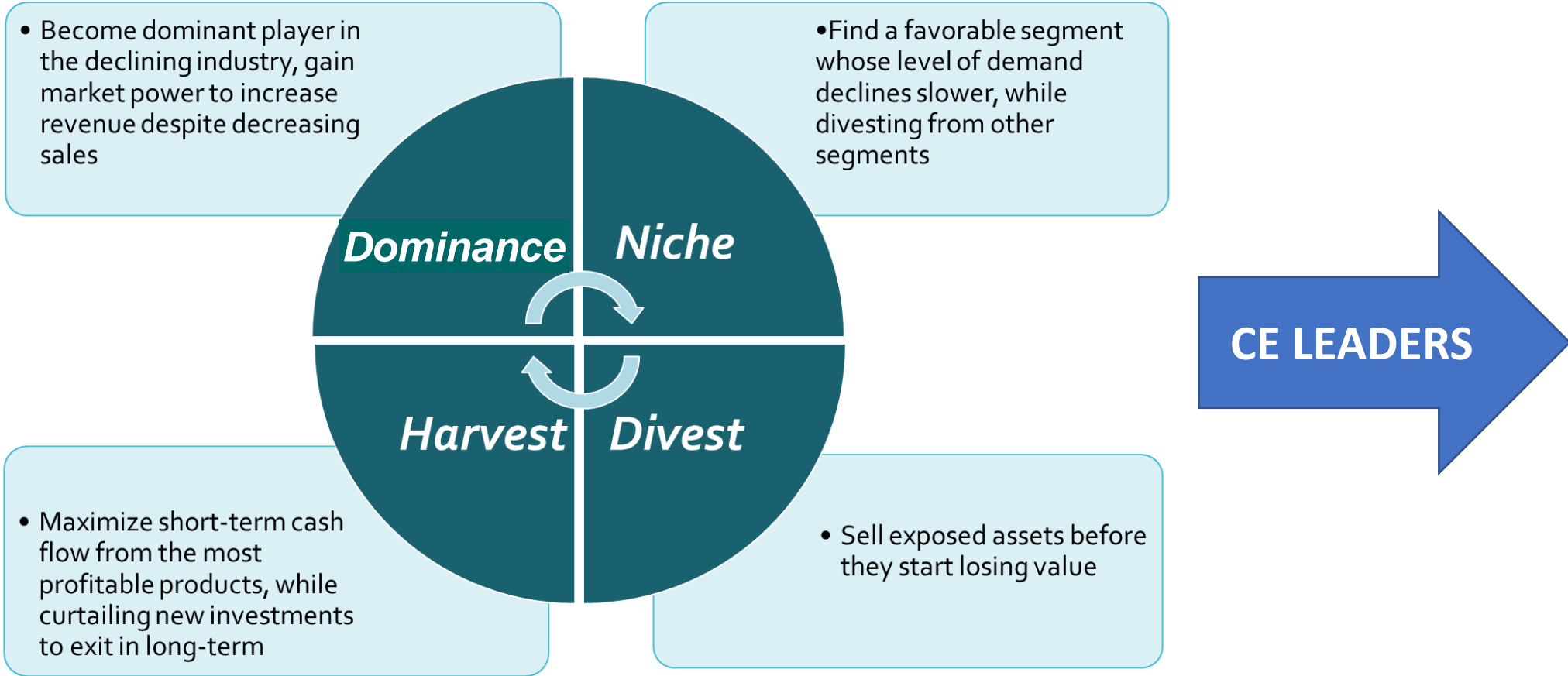
- Innovation through imitation and commercialization
- Preferential trade agreements, tech transfers
- Mass production, capture market shares
- More consumers shift preferences
- New international treaties emerge (e.g. plastic)

Late-comers manage transition risks

- Domestic pollution and waste
- Contingent fiscal liabilities
- Technology and skills obsolescence
- Limited access to export markets
- Loss of competitiveness



Firm strategies in declining linear industries: Where is your firm?

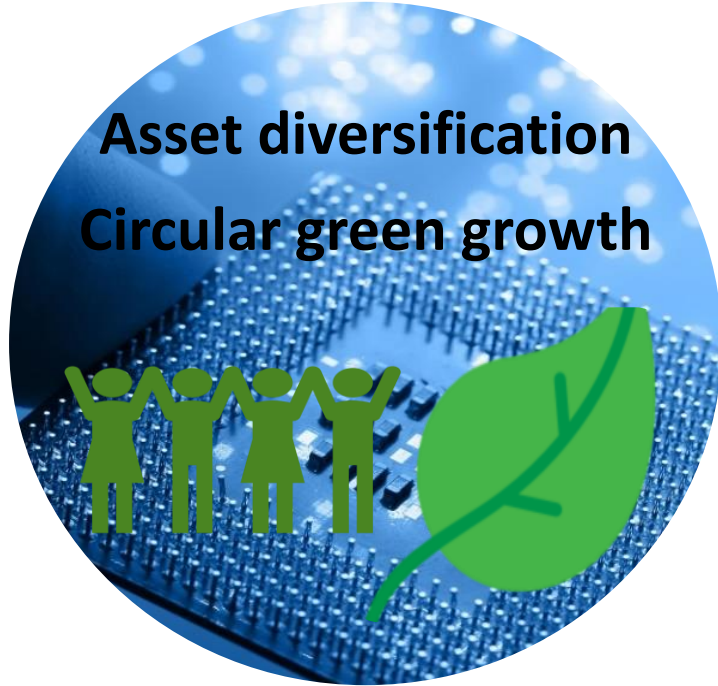


... depending on external market conditions and own capabilities

	Cooperative, smooth circular economy transition	Non-cooperative, disorderly circular economy transition
Competitive advantage, well positioned	Dominance or niche	Niche or harvest
No competitive advantage, poorly positioned	Harvest or divest	Divest

CE strategies to be customized to individual incentives and capacity

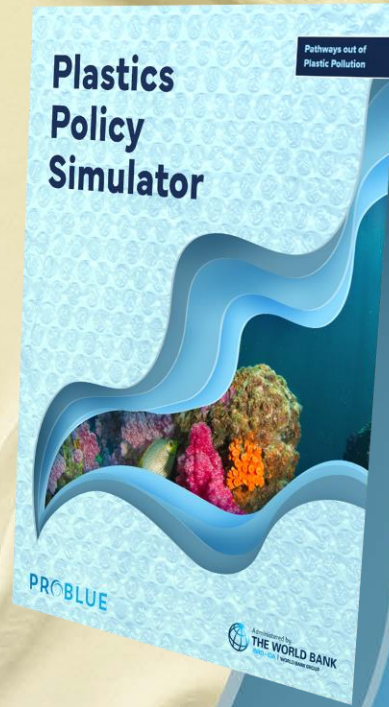
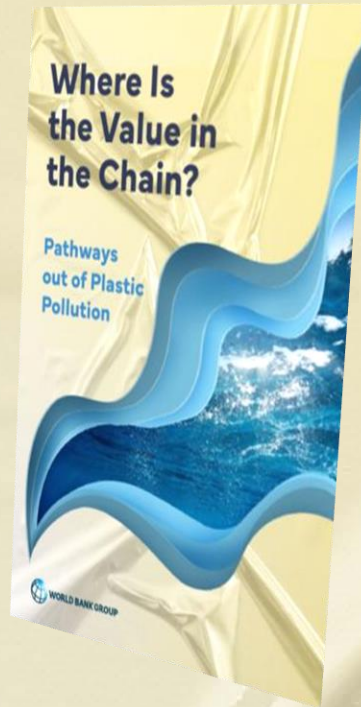
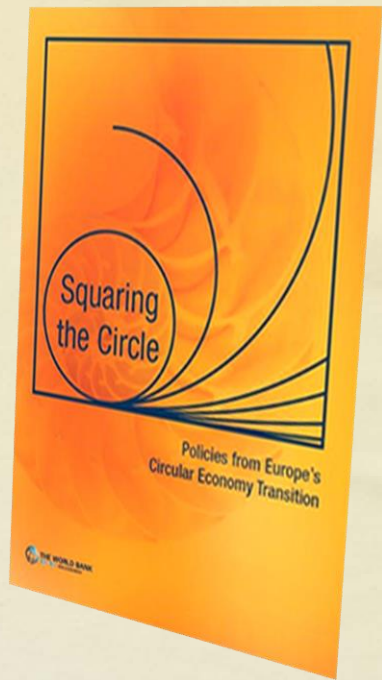
E.g., “extractive economies” face weaker incentives to go circular



Natural diversification inside the extractive and linear downstream value chains



Diversification beyond comfort zone: New products, skills and VCs, disruptive innovation, complexity



Thank you!
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