This is an example report generated by CTI Tool. It assesses the circular performance of a computer mouse.*

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Look for this symbol to find guidance on how to read and use this report.

*Information blocks like this one will not be visible in the report generated by CTI Tool.



This report was generated by ctitool.com

This report can be used to:

- Set a baseline and monitor progress
 Report externally (Sustainability Reports, GRI, Cradle to Cradle...)
- Start internal conversations to support strategies
- Find linear risks and circular opportunities

CTI REPORT

This report was generated by the CTI Tool, to help organizations go through the Circular Transition Indicators (CTI) process and apply the methodology into their circularity and sustainability strategies.

The CTI is a universal and consistent framework developed by WBCSD together with 26 of their members to measure circularity. Built for business, by business, the framework is a globally recognized methodology that can be applied to businesses in all industries.

In this report, you will find detailed information about your CTI assessment, such as:

- the results from data calculations based on the data your company entered into the CTI Tool
- detailed visualisation for the indicators selected for this assessment, such as circular inflow and outflow, water circularity, energy and financial indicators such as circular material productivity
- the overall company circular performance
- potential opportunities for circular improvement.

You will also be able to see in which step of the CTI assessment your company currently is.

The CTI framework provides businesses with a common language to communicate with both internal and external stakeholders. You can use this document in meetings with your colleagues or to report on the current status of your company's circular and sustainability efforts.

To make the best of this report, we recommend that you study the CTI framework document.

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Computer mouse

Company name	Computer Mouse
Business level	Select business level
Created by	Computer Mouse
Time frame	31/12/2020 - 01/01/2022

 STEP 1 O
 STEP 2 O
 STEP 3 O
 STEP 4 O
 STEP 5 O
 STEP 6 O

 Define the indicators
 Collect data
 Collect data
 STEP 4 O
 STEP 5 O
 STEP 6 O

Selected indicators

CTI TOOL



Overview of your circular performance



The diagram above illustrates the circular performance of the business level selected for this assessment. It includes total inflow and outflow of materials, with the percentage based on material weight.

Inflow will be marked as circular if flows are non-virgin and/or renewable, and outflow will be marked as circular if it is both potentially recoverable and will be actually recovered.

(1) Lost potential refers to the percentage of material that has recovery potential but is not currently being recovered, therefore losing recovery potential.

STEP 7 👩

Apply

The diagram below is not available in the report that is generated by CTI Tool. It is added here for guiding purposes.

(!)



Close the loop: Inflow details



As the CTI is mass-based, flows with higher mass contribute more to the overall performance. The inflow and outflow (next page) sections show the top 5 largest flows.

The diagrams below show the circular performance of the inflows of the business level analysed in this assessment. Flows are sorted based on the largest mass, most circular inflow, and most linear inflow. These breakdowns are useful to identify hotspots in your dataset and to determine where your focus areas are.

Breakdown of mass	
Virgin & Renewable	0%! Circular
Non-virgin & Renewable	0%
Virgin & Non-renewable	86% 181170.00kg
_	Linear
Non-virgin & Non-renewable	14% 28830.00kg

Largest inflow	re your l ircular c	largest or linea	inflows r?		
1. Acrylonitrile butadiene	V-R	NV	V-NR		NV
120000kg	0%	0%	95%		5%
2. Stainless steel insert	V-R	NV	V-NR	NV-NR	
30000kg	0%	0%	56%	44%	
3. Copper wires	V-R	NV	V-NR	NV-NR	
19500kg	0%	0%	56%	44%	
4. Acrylonitrile butadiene	V-R	NV	V-NR		NV
15000kg	0%	0%	95%		5%
5. Phenolics in USB	V-R	NV	V-NR		NV
7500kg	0%	0%	100%		0%

Most circular inflow

1. Stainless steel insert 30000 kg	V-R 0%	NV 0%	V-NR 56%	NV-NR 44%	
2. Copper wires 19500 kg	V-R 0%	NV 0%	V-NR 56%	NV-NR 44%	
3. Silicon metal 3000 kg	V-R 0%	NV 0%	V-NR 90%		NV-NR 10%
4. Acrylonitrile butadiene 120000 kg	V-R 0%	NV 0%	V-NR 95%		NV 5%
5. Acrylonitrile butadiene 15000 kg	V-R 0%	NV 0%	V-NR 95%		NV 5%

Most linear inflow

1. Phenolics in USB	V-R	NV	V-NR	NV
7500 kg	0%	0%	100%	0%
2. Polyurethane	V-R	NV	V-NR	NV
7500 kg	0%	0%	100%	0%
3. Polyvinylchloride (PVC)	V-R	NV	V-NR	NV
7500 kg	0%	0%	100%	0%
4. Acrylonitrile butadiene	V-R	NV	V-NR	NV
120000 kg	0%	0%	95%	5%
5. Acrylonitrile butadiene	V-R	NV	V-NR	NV
15000 kg	0%	0%	95%	5%

(!)

Most linear flow: refer to this indicator to find the best opportunities to change linear materials to circular ones and increase the circularity percentage.

Tip: this can be a good place to identify flows for improvements. You can explore opportunities to see the actual results of different scenarios in Step 5 of the CTI Tool.

Close the loop: Outflow details

(The diagrams below show the circular performance of the outflows of the business level analysed in this assessment. The percentage of recovery potential reflects your company's ability to design or treat its outflow to ensure materials can be technically recovered. The percentage of actual recovery reflects the amount of materials actually recovered.

Recovery is not the same as collection, because after collection materials can still end up in landfill or incineration. Thats why this'indicator requires actual data. The breakdown of mass visually shows the lost potential of the circular out flow due to partial actual recovery. Flows are sorted based on the largest mass, most circular outflow and most linear outflow.



Most circular outflow

1. Scrap 3000 kg	Linear 10%	Circular outflow 90%	
2. Mouse 210000 kg	Linear out 76%	flow	Circular out 24%

Most linear outflow

Energy

1. Mouse	Linear out	flow	Circular out
210000 kg	76%		24%
2. Scrap	Linear	Circular outflow	
3000 kg	10%	90%	

Water

Water circularity 1	4%	Rene	wable energy	
Water circularity =		Rene	ewable energy	
Average (circular water inflow + circular water outflow)		total	energy	

(1) Energy refers to the use of renewable energy for business operations. Your goal should be to reach 100% renewable energy use by decreasing overall energy consumption or substituting use of fossil fuels for renewable options.

	14%
Water circularity =	
Average (circular water inflow + circular water outflow)	

(Water circularity refers to water use on local level and aims at lower freshwater demand. Circularity of water is determined through the % circular water inflow and % circular water outflow,

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10%

n

n

x 100%

Optimize the loop

Critical inflow		1%
mass of (virgin) inflow defined as critical	n	x 100%
total mass of inflow	n	X 100 %

Oritical inflow highlights the share of linear inflow considered critical or scarce. This will help your company access the risk level of certain specific material flows and to prioritize actions accordingly.

Critical Materials

Name	Mass	Virgin Renewable	Non-Virgin Renewable	Virgin Non-renewable	Non-virgin Non-renewable
Silicon metal	3000 kg	0	0	90	10

(1)

Onsite water circulation 9.00x Q water use - Q total water withdrawal n Q total water withdrawal n

Onside water circulation refers to the internal reuse and recycling of water of a product facility or the location of the company. It is the average between % circular water inflow and % circular water outflow (assuming the volume is the same).

recovery type

For more information on Recovery type, see page 46 of the CTI Framework.

Breakdown of recovery cycle

(!)

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Technical 213000.00kg		Bi	ological cycle non-food	Biological cycle food	Unknown / Other
100%					
Technical	213000kg	Biological cycle non-food	0kg	Biological cycle food	0kg
Re-use		Re-use		Consumption	
Repair / Refurbish	210000.00 Kg 99%	Repair / Refurbish		Consumption alternative	
Repurpose / Remanufacture		Repurpose / Remanufacture		Nutrient absorption through biodegradation	1
Recycle	3000.00 Kg 1%	Recycle		Biogas / biomass energy recovery	
Landfill / mixed waste incineration		Landfill / mixed waste incineration		Landfill / mixed waste incineration	
Unknown / other		Unknown / other			

Nutrient absorption through biodegradation

Biogas / biomass energy recovery

Value the loop



Impact of the loop

GHG Impact	45034.08 kg CO ₂ -eq
	48.3% CO2-eq
If all your inflows would consist of 100 you could save 45034.08 kg CO2 equ upstream in the value chain.)% recycled materials, ivalent of GHG emissions

(i) This amount is based on **9.3% of your inflow.**

This indicator expresses the monetary value per unit of mass. This absolute value is best used to compare performance over time. An increase in circular material productivity demonstrates a decoupling of financial growth from material use.

Your company's CTI revenue is its revenue adjusted for the % circularity (weighted average of the % circular inflow and % circular outflow) of its product portfolio. The greater the CTI revenue, the better your company can generate revenues from its circular products/business. This metric also reflects decoupling as revenues increase from circular flows.

The aim of assessing Greenhouse Gas (GHG) emission impact is to provide companies with a high-level indication of the GHG savings they may obtain by applying circular strategies. This information can be used to better understand carbon footprint benefits, evaluate trade-offs and help prioritize circular improvements.

STEP 5 Analysis: Inflow

① This section shows the results from the CTI calculation performed in Step 4. This is the quantitative foundation for identifying, prioritizing and implementing circular initiatives, therefore crucial for your decision-making. This overview shows your selected flows and scenarios for improving circular performance. It also includes impact on your circular inflow performance, which can be achieved by adopting these inflow optimizations.

Inflow questions

The questions below will help you interpret the results of your data calculations.

Why is our circular inflow 14%?

Mostly influenced by ABS and the metals. ABS has 5% non-virgin content and the metals have ~50% non-virgin content.

What are the first impressions about where we should focus our improvement efforts on?

Finding an ABS supplier that is able to use a higher percentage of nonvirgin content.

Why?

Because this is, based on weight, the most impactful improvement.

Inflow analysis

Which inflows have limited options to improve due to external limitations? (Sub-)assemblies that are procured as such are hard to influence.

Why?

There is complexity in the supply chain.

Is it higher or lower than expected?

5% non-virgin content.

It is lower than expected as ABS is the dominant material, and has only

Name	Mass(Kg)	circular inflow	Impact on total circula	ar inflow	
Polyurethane	7500.00 kg	15 %	+0.54%		The circular inflow of the business unit Computer mouse
Polyvinylchloride (PVC) insulation wire	7500.00 kg	0 %			will increase by
Acrylonitrile butadiene styrene (ABS) USB casing	15000.00 kg	5 %			~ 9%
Silicon metal CRITICAL	3000.00 kg	20 %	+0.14%		if all changes above are implemented.
Stainless steel insert	30000.00 kg	100 %	+8.00%		
Acrylonitrile butadiene styrene (ABS) housing	120000.00 kg	5 %			() Evaluate your results and document them for future
Copper wires	19500.00 kg	44 %		L	helpful to communicate improvement potential to colleagues and generate intradictional services of the service of the servic
Phenolics in USB	7500.00 kg	0 %			also compare reports to monitor improvements
				Change	New value
% circular inflow				8.68 %	22.41 %
Critical materials				-0.14 %	1.14 %
Circular material productuvity				11.18 %	€ 6.14 /kg
CTI revenue				86.21 %	€359923.04

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(1) The circular outflow of the business unit Computer mouse will increase by 24.65% if all changes above are implemented.

Outflow questions

The questions below will help you interpret the results of your data calculations.

Why is our circular outflow 25%?

The mouse is almost completely refurbishable, but only 25% of the mouses are recovered.

What are the first impressions about where we should focus our improvement efforts on?

Increasing the number of mouses returned.

Why?

Because their recovery potential is already 95%

Outflow analysis

Name	Mass(Kg)	Recovery potential	Actual recovery	Impact on total circular outflow
Mouse	210000.00 kg	100 %	49 %	+24.65%
Scrap	3000.00 kg	100 %	90 %	

The circular outflow of the business unit Computer mouse will increase by

~ 25%

if all changes above are implemented.

	Change	New value
% circular outflow	24.65 %	49.58 %
CTI revenue	86.21 %	359923.04€

Is it higher or lower than expected?

limitions?

The scrap.

Why?

It is what we expected, but there is room for improvement.

Which outflows have limited options to improve due to external

Because it is already 100% recovered through partnerships.

Analysis: Energy

Energy measurement includes all the energy carriers that flow into your company (including, but not limited to, gas, electricity and fuels). In line with WBCSD's approach, CTI allows companies to use existing policies and procedures, permitting the reuse of existing data sets.

In CTI, it's not possible for a company to achieve greater than 100% renewable energy. This way, even if your company generates more renewable energy onsite than it uses and sells it back to the grid (utility), it's necessary to cap the renewable energy indicator at 100%.

Energy analysis

Name	Amount	Improvement		
Renewable energy	1234 kWh	+ 2468 kWh	The renewable energy of the business unit	
Total energy	12345 kWh	12345 kWh	will increase by	
			~ 10.00%	
			if all changes above are implemented.	

	Change	New value
% renewable energy	10.00 %	19.99 %

STEP 5

Analysis: Water

(1) It's necessary to assess water circularity on a local level for a water catchment area or local watershed. The circularity of water is determined through the % circular water inflow and % circular water outflow, which in turn depends on local water conditions.

Water analysis			
Name	Volume	Improvement	The water circularity of
Total circular water inflow	1234 m3	+ 1357 m3	the business unit
Total circular water outflow	2345 m3	+ 2666 m3	will increase by
Total water use	123455 m3	123455 m3	~ 1.80%
Total water withdrawal	12345 m3	12345 m3	if all changes above are implemented.

Change	New value
1.80 %	16.29 %
Change	New value
0.00 %	9.00 %
	Change 1.80 % Change 0.00 %

Analysis: Impact of the loop

(i) It's necessary to assess water circularity on a local level for a water catchment area or local watershed. The circularity of water is determined through the % circular water inflow and % circular water outflow, which in turn depends on local water conditions.

GHG Impact Analysis

Name	Virgin content (%)	GHG impact (kg CO ₂ -eq.)	
Copper wires	- 20.00 56.00%	-16083.60	
Copper			-45034.08
		Scenario result	Potential improvement
GHG impact (kg CO ₂ -eq.)		-16083.60	-45034.08

The material-related upstream GHG emissions of

the business unit Computer mouse will decrease by

16083.60 kg

if all changes above are implemented.

Prioritization: Inflow

Evaluate and communicate the relationship between your circular performance and linear risks. By assessing company exposure to risks, and by subsequently evaluating opportunities via a business case, companies can start prioritizing actions. Refer to CTI's risks and opportunities matrix (p. 58) to evaluate your priorities.

(1) In this section, you can look at the opportunities and risks associated with your assessment. The section below demonstrates how the circular performance relates to your exposure to linear risks.

 $(\Gamma$

By assessing exposure to risks and evaluating your opportunities (via a business case), you can work on scenario-planning and prioritize actions. You can also link your findings to dynamics in the market, operations, business and legal aspects.

Involve factors that impact an

organization's internal operations





opportunities

Market

There can be a cost advantage for the non-virgin resources.

Business

Distinguishing the product with recycled content is already seen to be strong marketing strategy, with increased market share and premium pricing.

Operational The fluctuating quality of recycled ABS may influence the quality of the product's look & feel. THREAT VULNERABILITY 2 3 6 7 1 4 1 2 3 5 6 7 Arise from current and future regulations, standards and protocols Legal iance to coming eco-design directives, that require a minimum % Non-com recycled content, may result in fines or lawsuits THREAT VULNERABILITY 1 2 3 6 7

Operational

We can set-up or improve our take-back and collection schemes in value chain to increase return flows (and reduce cost).

Legal

We can make use of subsidies for secondary material use.

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STEP 6 Prioritization: Critical Materials

risks

Market

The supply of silicon metal might be unstable, as two thirds of the world's supply comes from a single area in China.



Business

Public opinion on electronics producers may put a stronger pull on circular electronics., with a risk of losing market share if we don't increase our circularity.



opportunities

Market

There can be a cost advantage for the non-virgin resources.

Business

Distinguishing the product with recycled content is already seen to be strong marketing strategy, with increased market share and premium pricing.

Operational

The fluctuating quality of recycled ABS may influence the quality of the product's look & feel.



Legal

Non-compliance to coming eco-design directives, that require a minimum % recycled content, may result in fines or lawsuits.

THRE	АТ										VUL	.NERA	BILITY	
1	2	3	4	5	6	7	1	2	3	4	5	6	7	

Operational

We can set-up or improve our take-back and collection schemes in value chain to increase return flows (and reduce cost).

Legal

We can make use of subsidies for secondary material use.



Prioritization: Outflow

risks

Market

The Basel convention for border crossing of electronic waste makes it harder to dispose of linear outflow.



Business

Increased scrutiny of WEEE and the amount going into landfills.



opportunities

Market

Valorizing returned mouses to refurbish, thus increasing circularity and saving costs.

Business

Discount voucher for returning goods in the store.



Legal

VULNERABILITY

More requirements on eco-design principles and EPR schemes for electronic equipment.

THRE	AT										VUL	NERA	BILITY	
1	2	3	4	5	6	7	1	2	3	4	5	6	7	

Operational

Increasing our circular image may help attracting and retaining millennial talent.

Legal

Making use of subsidies and incentives for business model innovation.

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Prioritization: Energy

risks

Market Scarcity of fossil resources THREAT VULNERABILITY 1 2 3 4 5 6 7	Operational Worker safety issues THREAT VULNERABILITY 1 2 3 4 5 6 7 1 2 3 4 5 6 7
Business Increasing fossil energy prices. THREAT VULNERABILITY 1 2 3 4 5 6 7	Legal More stringent laws around fossil energy use. THREAT VULNERABILITY 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7
Opportunities Market Abundance of renewable resources.	Operational Green image may help attracting and retaining millennial talent.
Business Decreasing cost of renewable energy sources.	Legal Renewable energy subsidies.



Prioritization: Water

risks

Dependency on low water prices, which can rise wh	Water shortages disrupting operation	
THREAT	VULNERABILITY	THREAT
1 2 3 4 5 6 7 1 2	2 3 4 5 6 7	1 2 3 4 5 6 7
Business		Legal
Business _ocal reputation and loss of social license to opera	ate, may result in activism.	Legal Upcoming tightening of regulations
Business _ocal reputation and loss of social license to opera THREAT	ate, may result in activism. VULNERABILITY	Legal Upcoming tightening of regulations THREAT

opportunities

Market

Trading water rights in states with formal water markets.

Business

Advantage over competitors.

nforeseen mitigation cost



water scarcity.



Operational

Reliability of water inflow with consistent flow and pressure

Legal

Potential for more secure water rights due to demonstrable sustainable management.

STEP 7 Application

After analyzing the results of your data calculations, prioritizing the risks and opportunities, and assessing the circular solutions, the next step is to formulate targets for improvement and execute related actions.

In this section you can formulate S.M.A.R.T. targets to help you roll out your circular improvement actions according to each target.

efurbish 50% of all sold computer mous	es	
what needs to happen		
a Set-up collection in shops		
b Improve effectiveness of mail-bac	ck scheme	
when it needs to be happen		
a Q2		
who needs to take action		
a Account managers for the bigs sh	lops	
Departments to involve	Other parties to consider	Considerations when executing
1 Account management	1 Retailers	0

Appendix inflow materials

Name	Mass	Virgin Renewable(%)	Non-Virgin Renewable(%)	Virgin Non- renewable(%)	Non-virgin Non- renewable(%)
Silicon metal CRITICAL	3000 kg	0	0	90	10
Acrylonitrile butadiene styrene (ABS) USB casing	15000 kg	0	0	95	5
Acrylonitrile butadiene styrene (ABS) housing	120000 kg	0	0	95	5
Copper wires	19500 kg	0	0	56	44
Phenolics in USB	7500 kg	0	0	100	0
Polyurethane	7500 kg	0	0	100	0
Polyvinylchloride (PVC) insulation wire	7500 kg	0	0	100	0
Stainless steel insert	30000 kg	0	0	56	44

Appendix outflow materials

Name	Mass	Recovery potential	Actual recovery
Mouse	210000 kg	100	24
Scrap	3000 kg	100	90