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Product Name	Model Name	Country
Galaxy M15 5G	SM-M156B	TK
Galaxy XCover7	SM-G556B	EU
Galaxy S24 Ultra	SM-S928B	EU
Galaxy S24 Ultra	SM-S928U	US
Galaxy S24+	SM-S926B	EU
Galaxy S24+	SM-S926U	US
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Product Name	Model Name	Country
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Galaxy A24	SM-A245F	EU
Galaxy A14	SM-A145F	EU
Galaxy A23 5G	SM-A236V	US
Galaxy S23 Ultra	SM-S918B	EU
Galaxy S23 Ultra	SM-S918U	US
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Galaxy S23+	SM-S916U	US
Galaxy S23	SM-S911B	EU
Galaxy S23	SM-S911U	US
Galaxy Z Fold4	SM-F936U	US
Galaxy Z Flip4	SM-F721U	US
Galaxy XCover6 Pro	SM-G736U	US
Galaxy M13	SM-M135F	EU
Galaxy A73 5G	SM-A736B	EU
Galaxy A23	SM-A235F	EU
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Galaxy A13	SM-A135F	EU
Galaxy S22 Ultra	SM-S908U	US
Galaxy S22+	SM-S906U	US
Galaxy S22	SM-S901U	US
Galaxy S21 FE	SM-G990B	EU
Galaxy S20 FE	SM-G781B	EU
Z Fold3	SM-F926B	EU
Z Flip3	SM-F711B	EU
A12	SM-A127F	EU
Galaxy Note 20 Ultra	SM-N986B	EU

Life Cycle Assessment for Galaxy M15 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

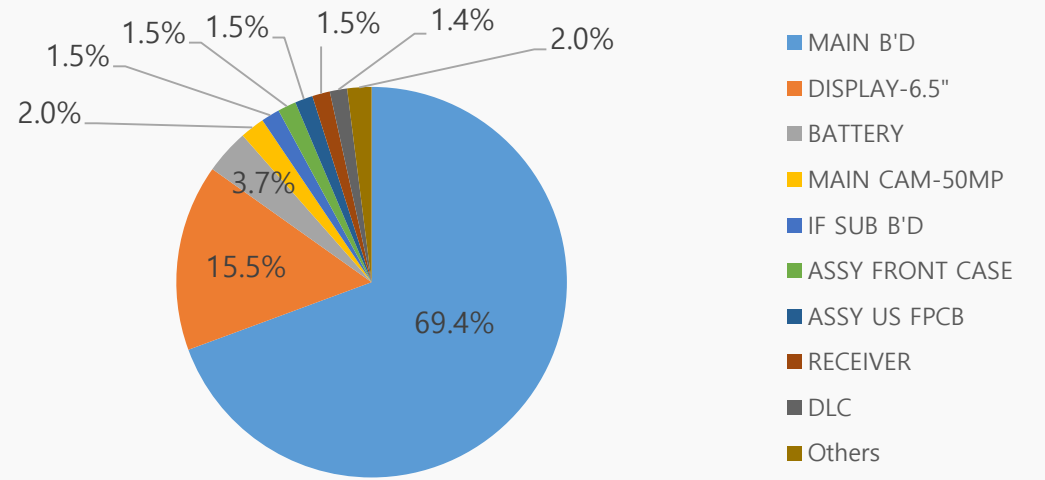
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and India to Turkiye
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

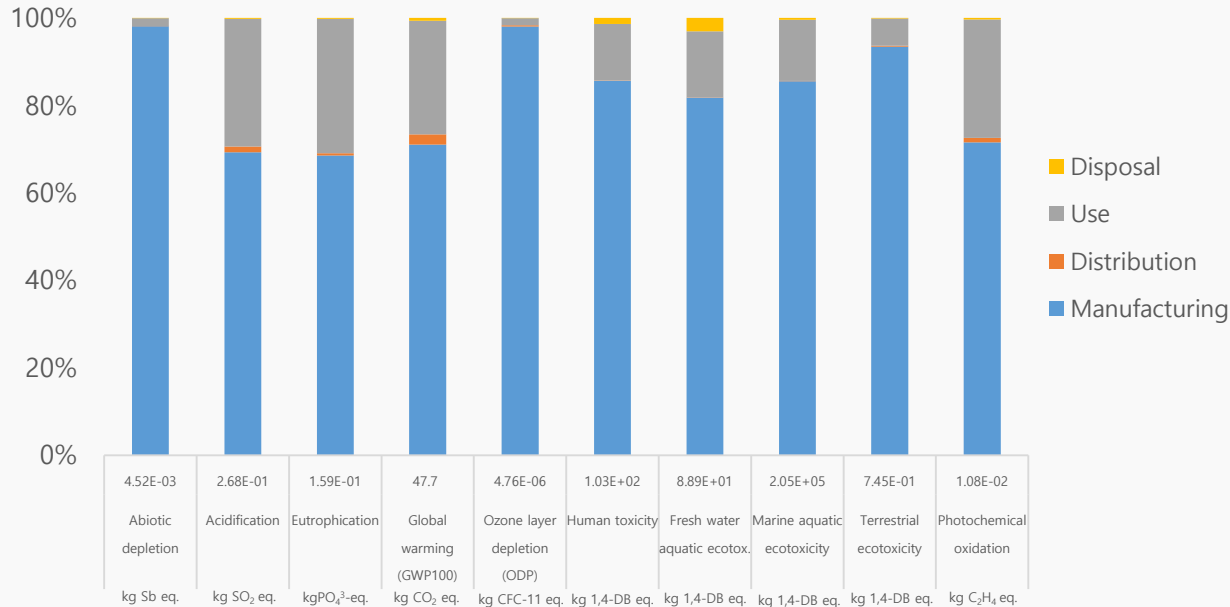


Model name	Galaxy M15 5G
Dimension	160.1 x 76.8 x 9.3mm
Display	OLED 6.5"
Weight	Product&Acc. : 236.88 g Packages : 89.77 g

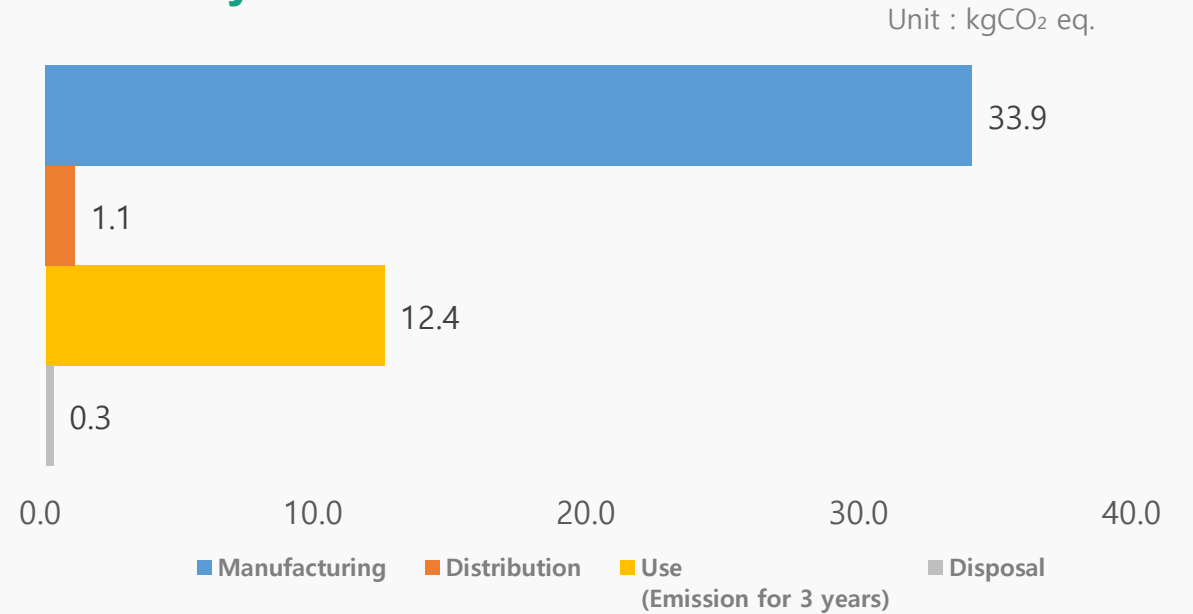
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy XCover7

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

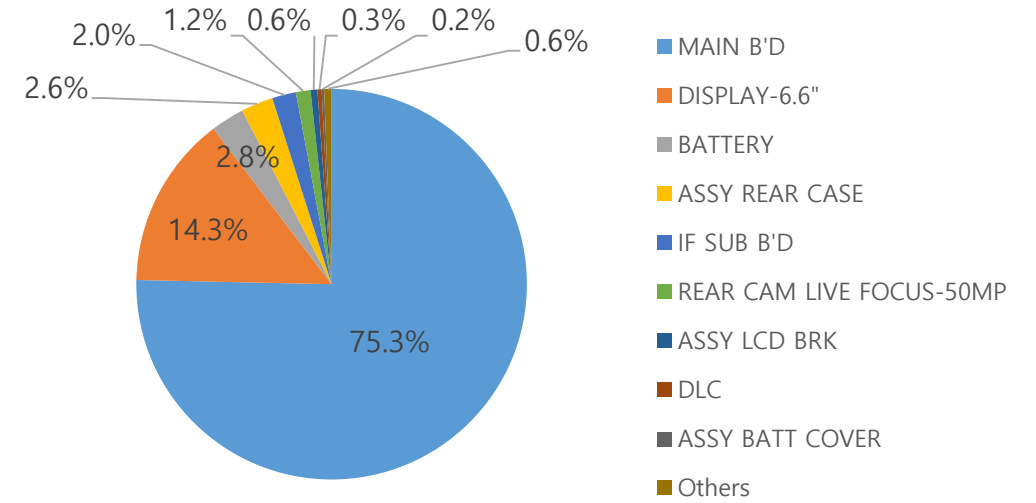
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

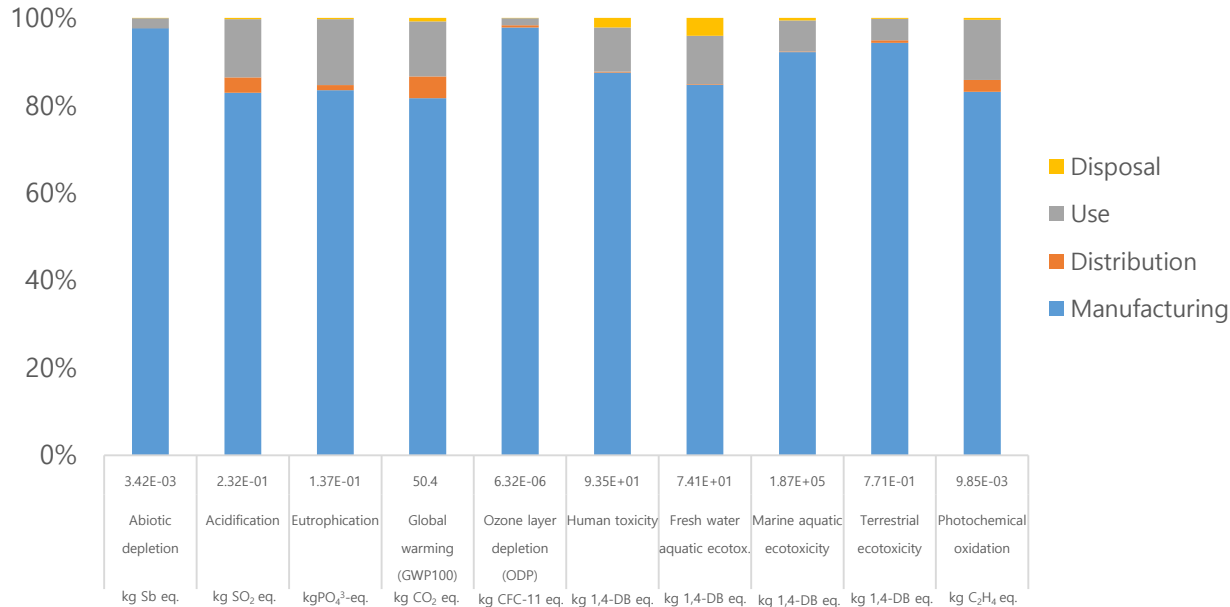


Model name	SM-G556B(Galaxy XCover7)
Dimension	169.0 x 80.1 x 10.2 mm
Display	LCD 6.6"
Weight	Product&Acc. : 261.75 g Packages : 114.76 g

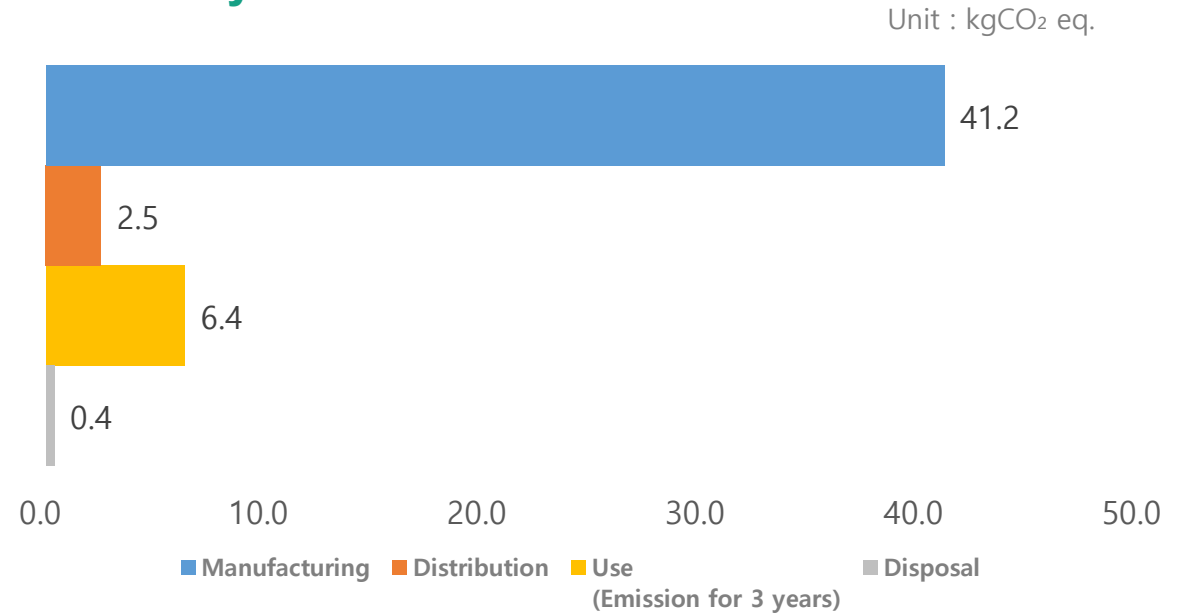
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy S24 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

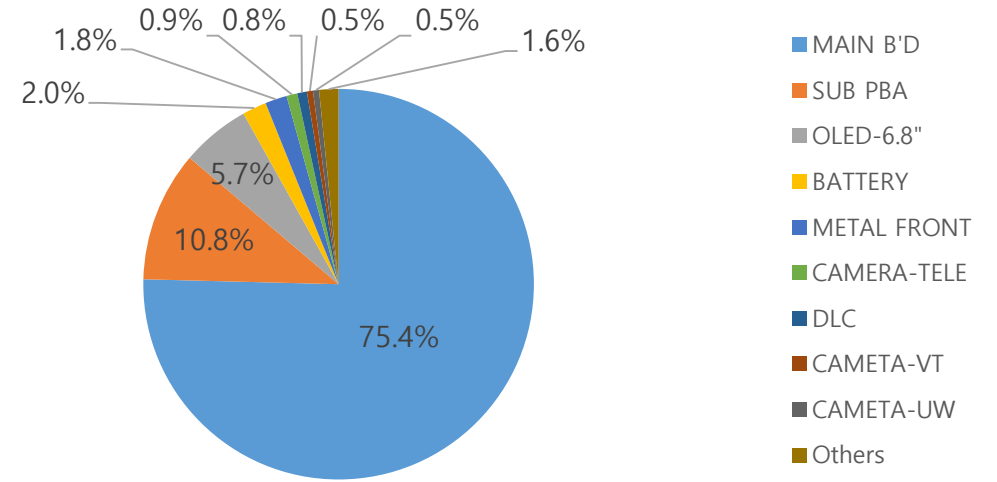
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

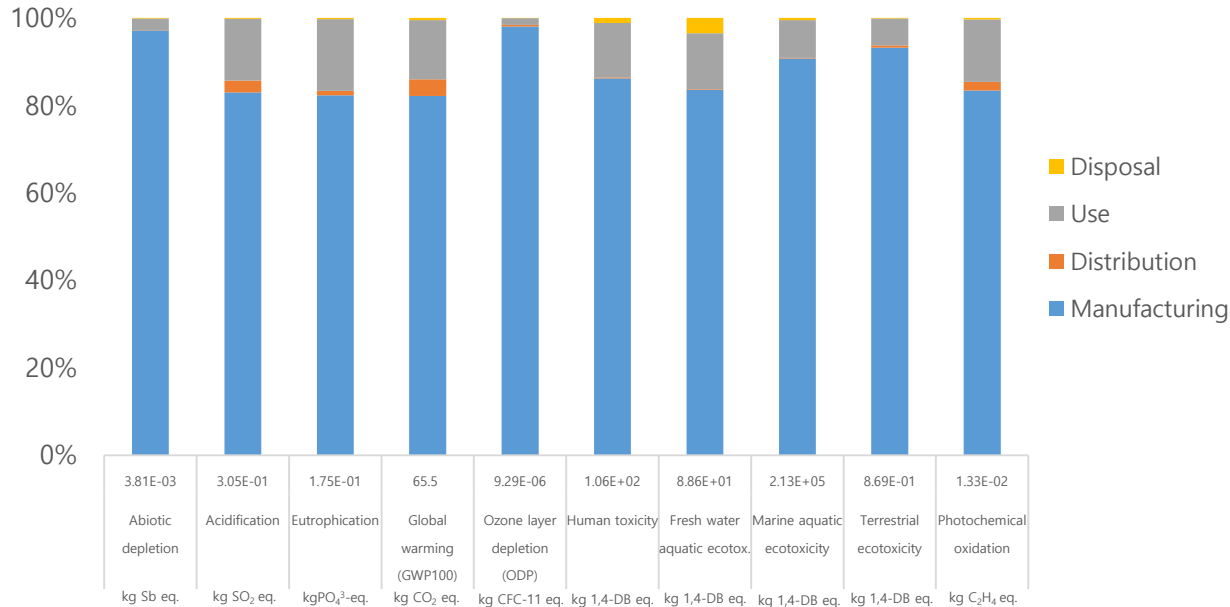


Model name	SM-S928B(Galaxy S24 Ultra)
Dimension	162.3 x 79 x 8.6 mm
Display	OLED 6.8"
Weight	Product&Acc. : 253.41 g Packages : 124.63 g

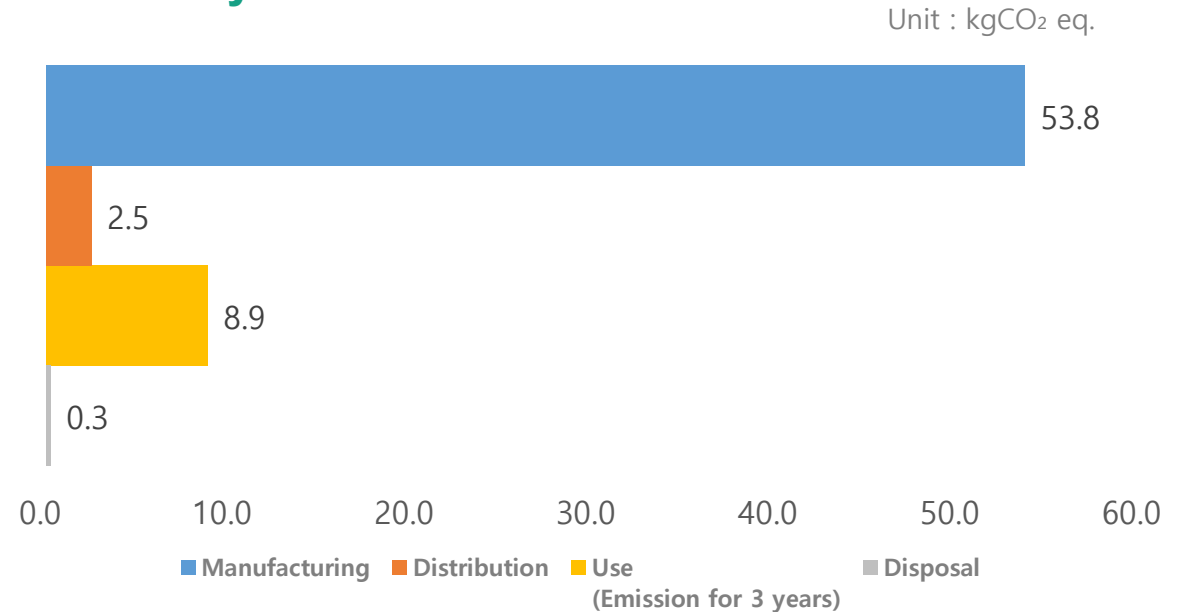
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy S24 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

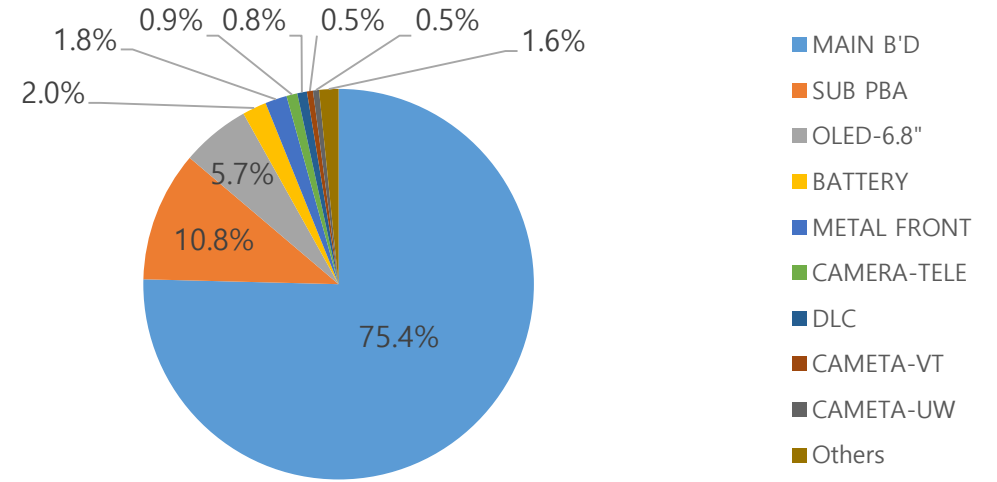
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

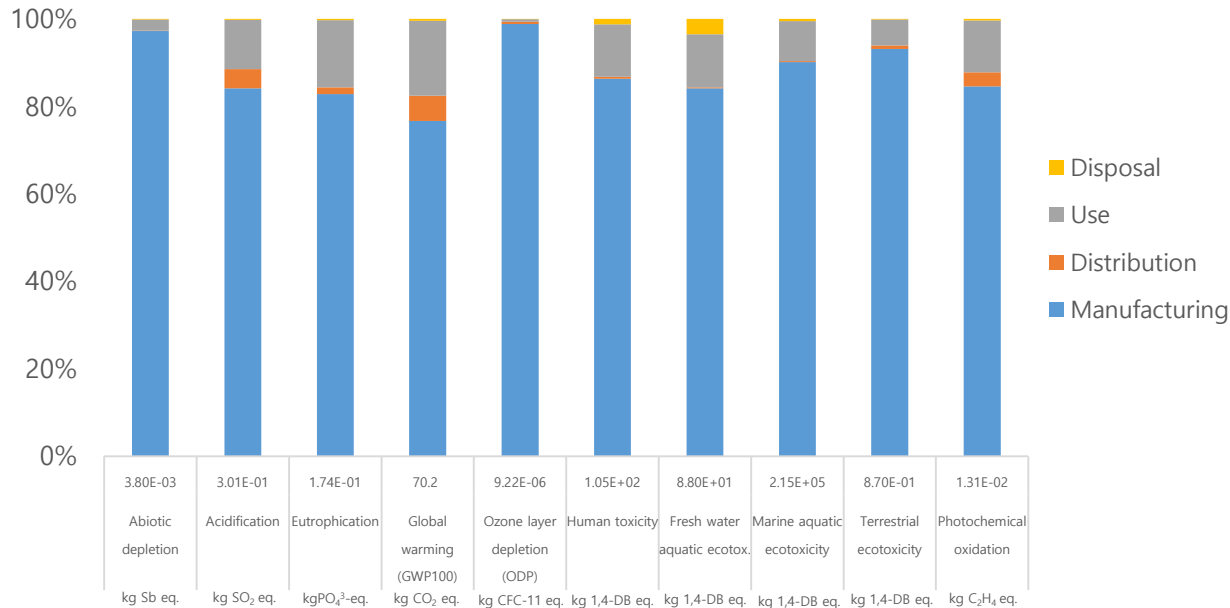


Model name	SM-S928U(Galaxy S24 Ultra)
Dimension	162.3 x 79 x 8.6 mm
Display	OLED 6.8"
Weight	Product&Acc. : 253.41 g Packages : 124.63 g

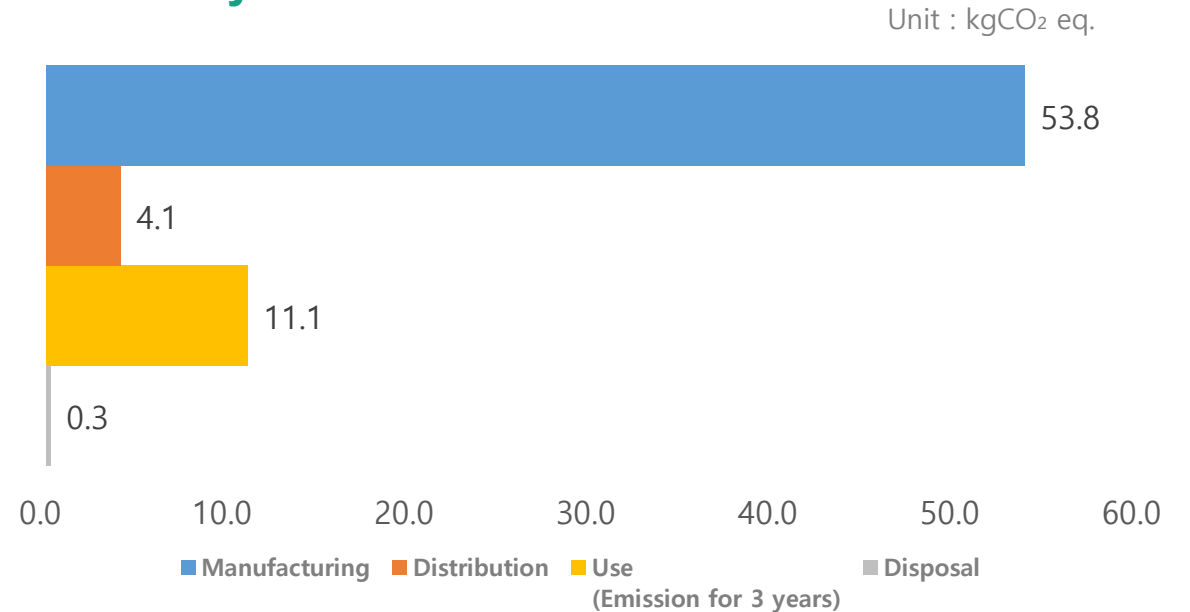
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy S24+

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

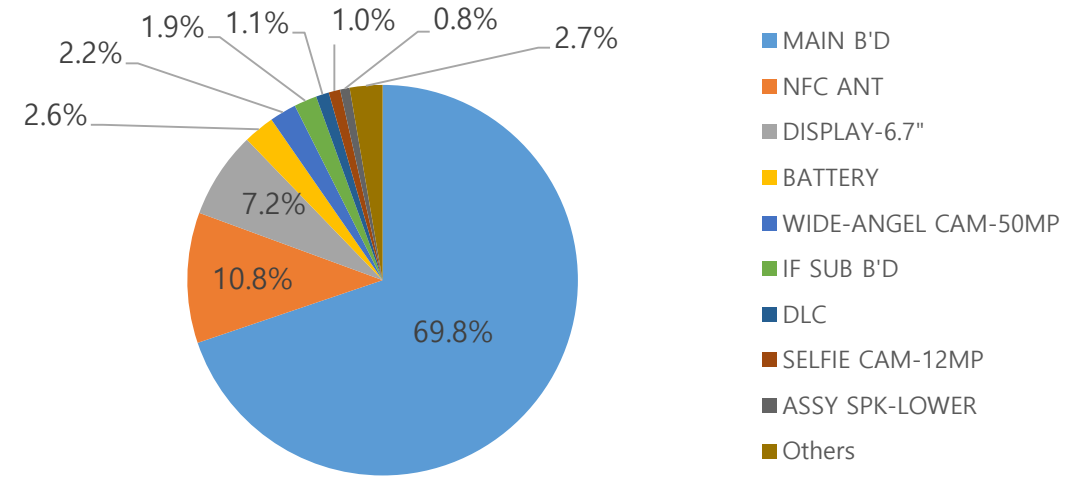
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

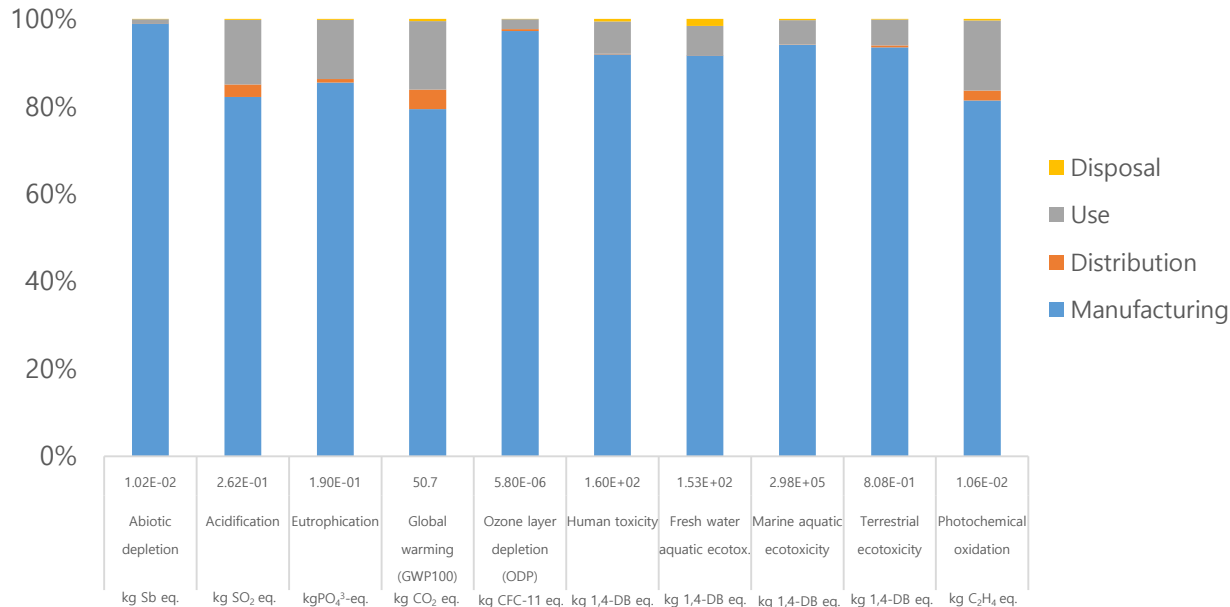


Model name	SM-S926B(Galaxy S24+)
Dimension	158.5 x 75.9 x 7.7 mm
Display	OLED 6.7"
Weight	Product&Acc. : 215.42 g Packages : 124.05 g

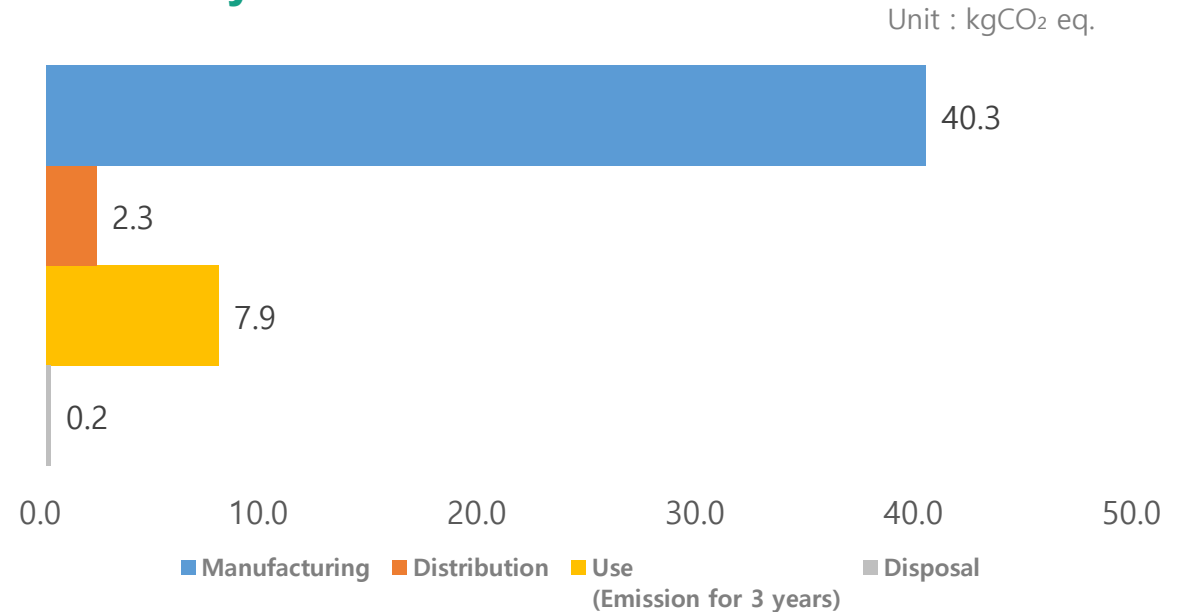
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy S24+

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

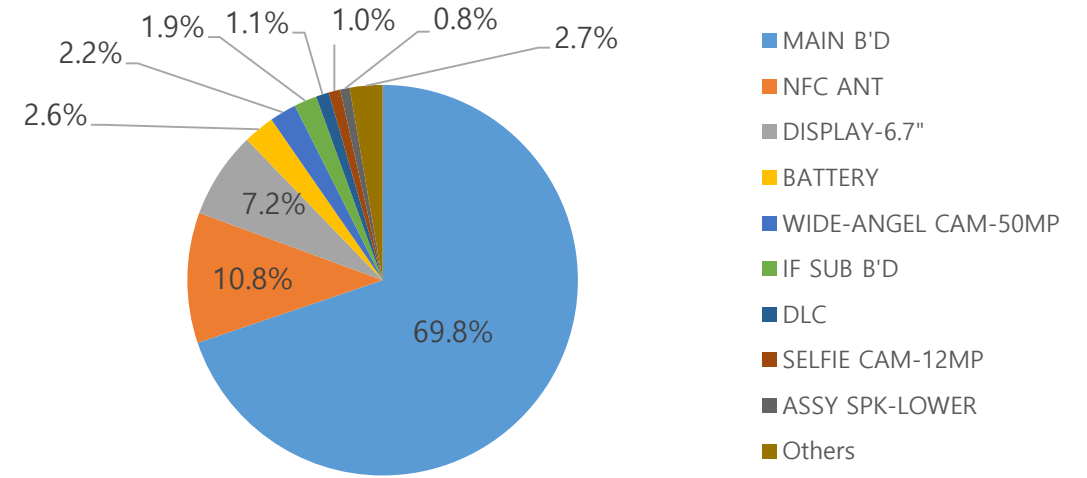
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

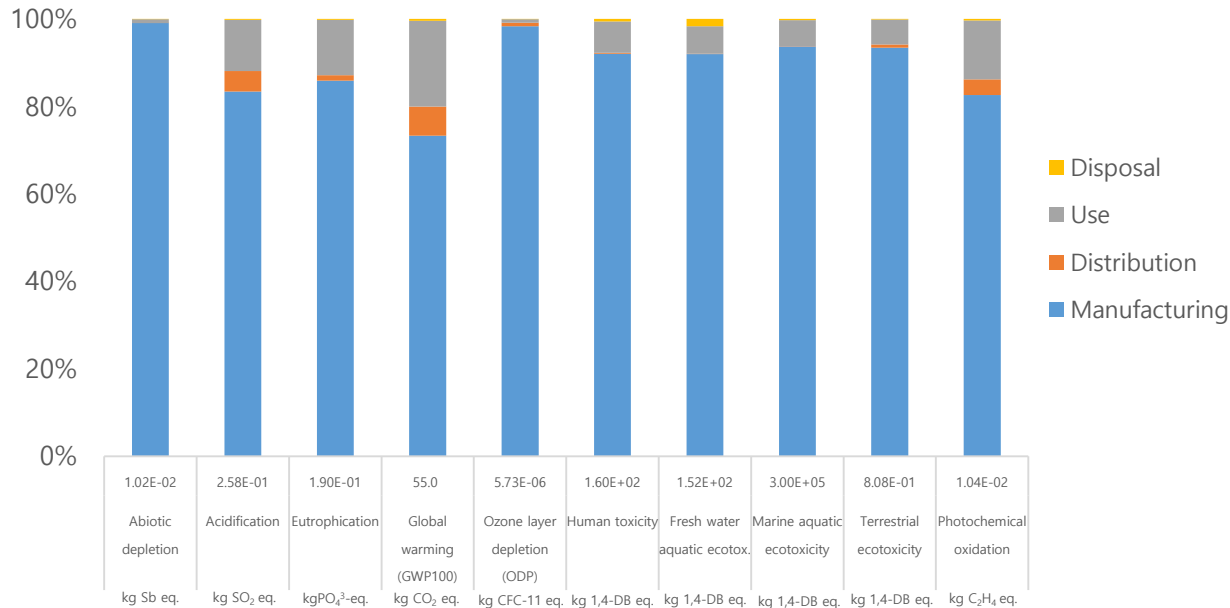


Model name	SM-S926U(Galaxy S24+)
Dimension	158.5 x 75.9 x 7.7 mm
Display	OLED 6.7"
Weight	Product&Acc. : 215.42 g Packages : 124.05 g

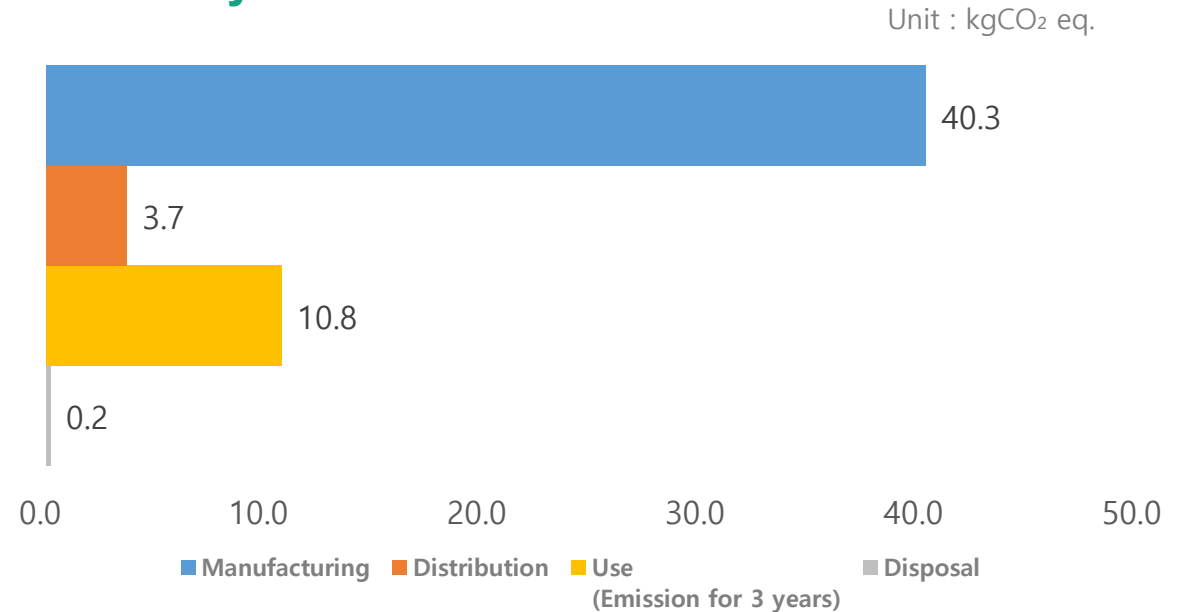
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy S24

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
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Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

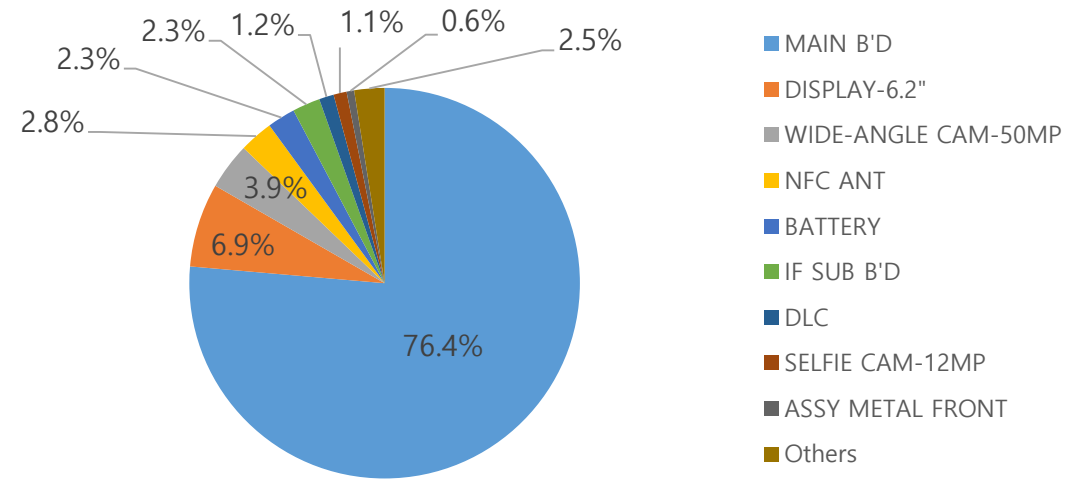
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

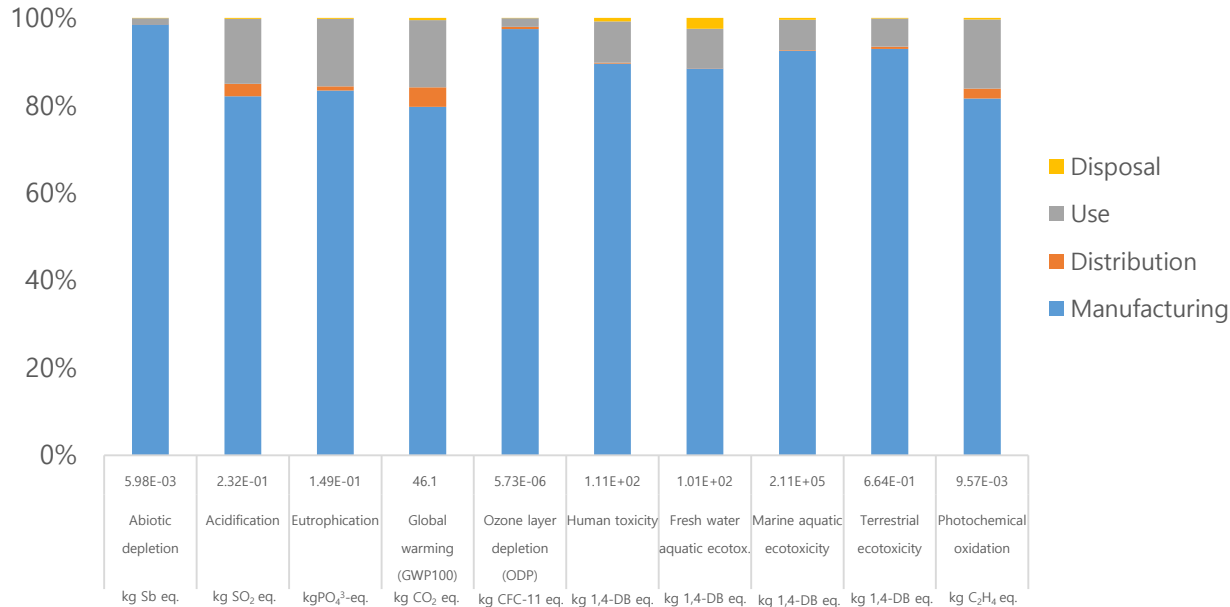


Model name	SM-S921B(Galaxy S24)
Dimension	147.0 x 70.6 x 7.6 mm
Display	OLED 6.2"
Weight	Product&Acc. : 186.42 g Packages : 118.64 g

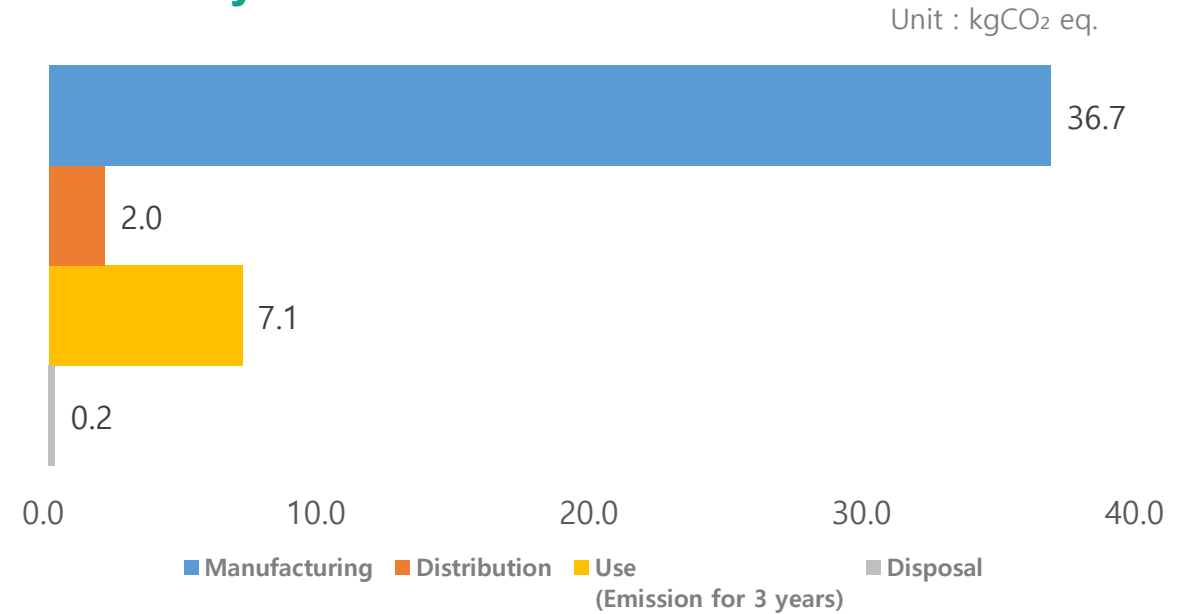
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy S24

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

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Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

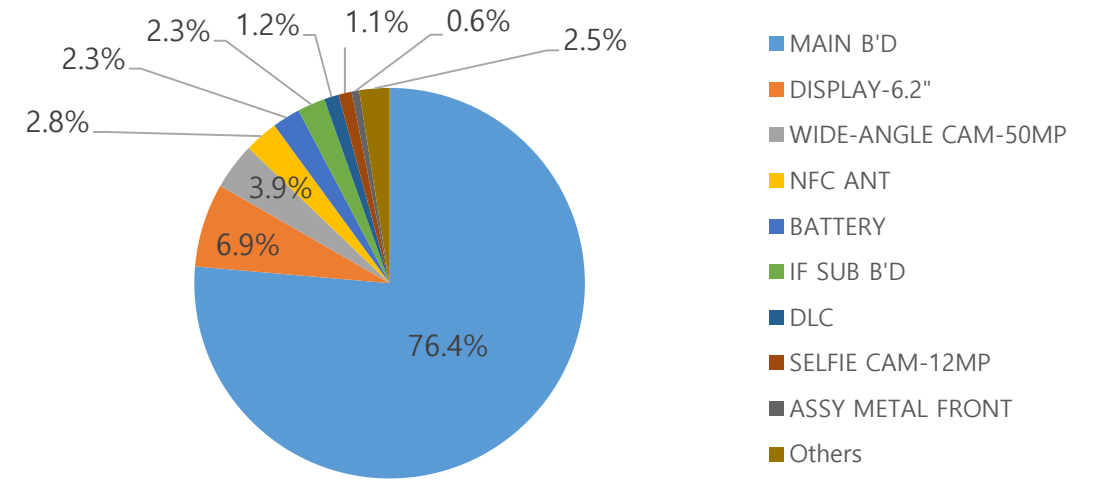
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

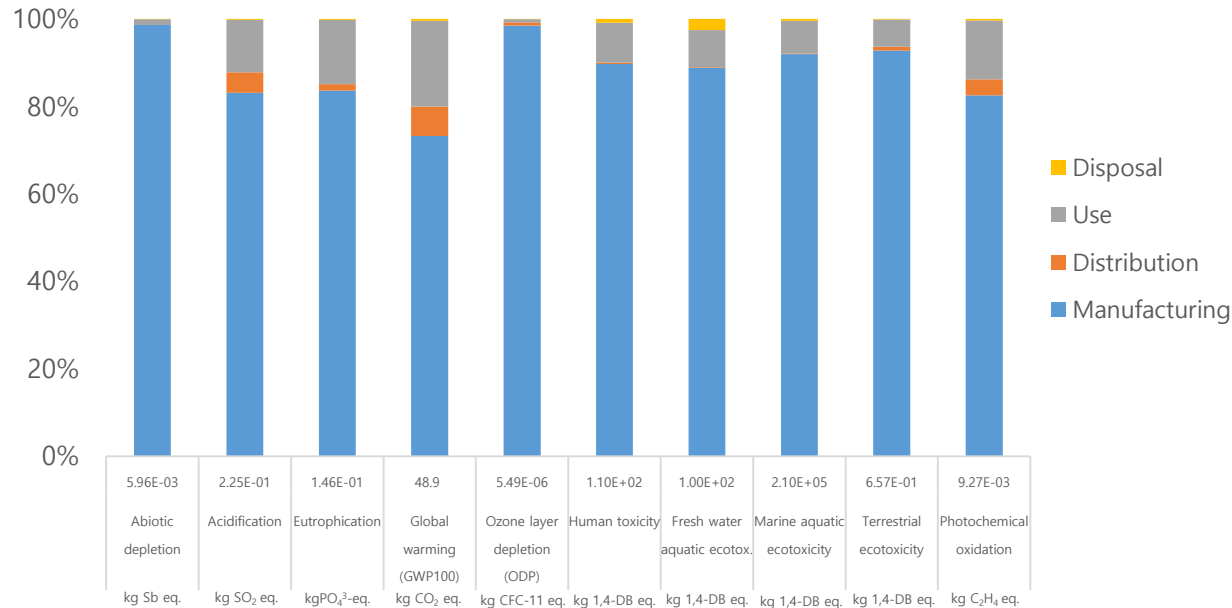


Model name	SM-S921U(Galaxy S24)
Dimension	147.0 x 70.6 x 7.6mm
Display	OLED 6.2"
Weight	Product&Acc. : 186.42 g Packages : 118.88 g

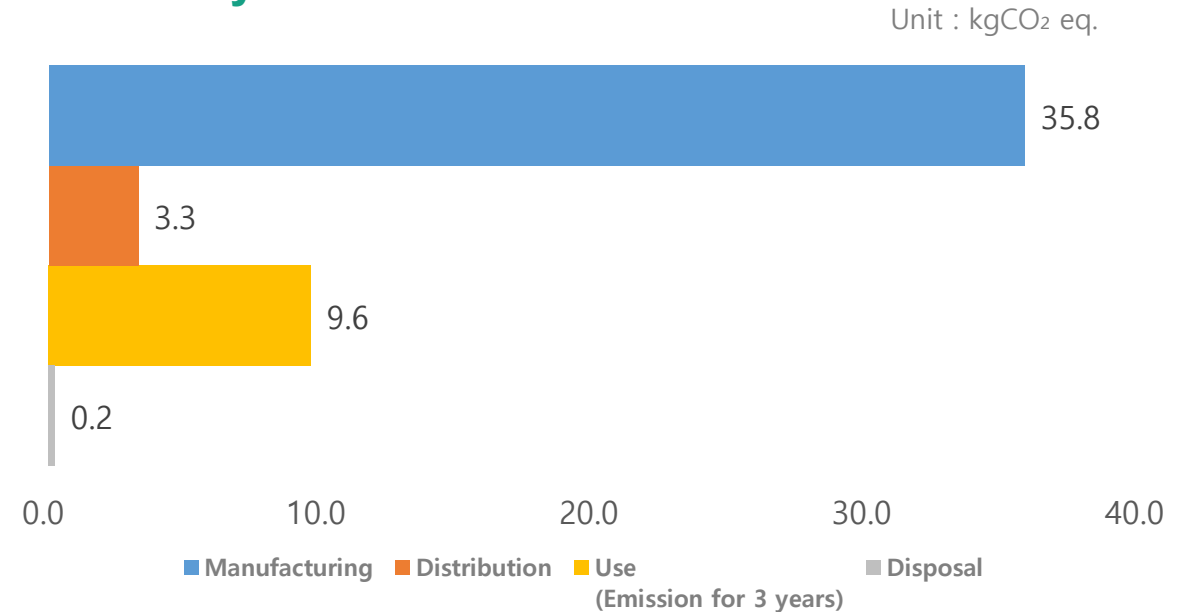
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy A25 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

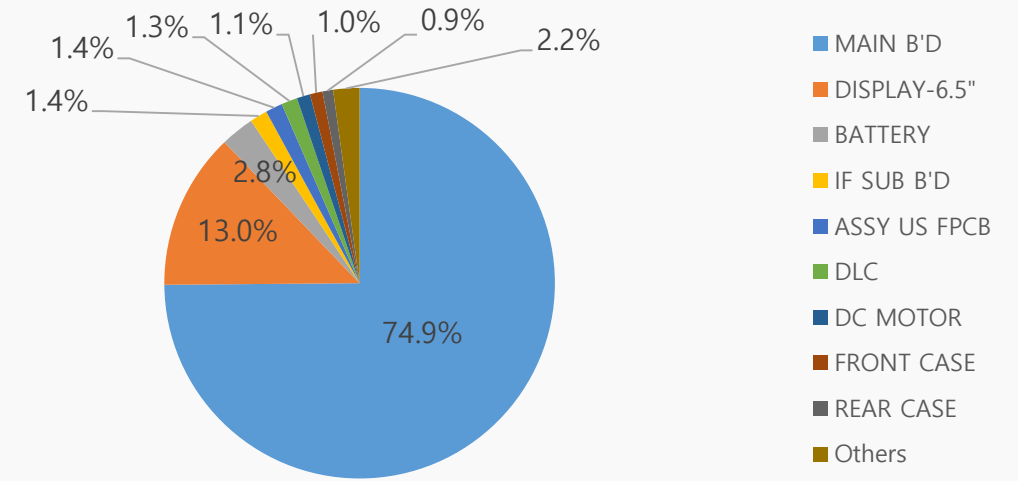
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

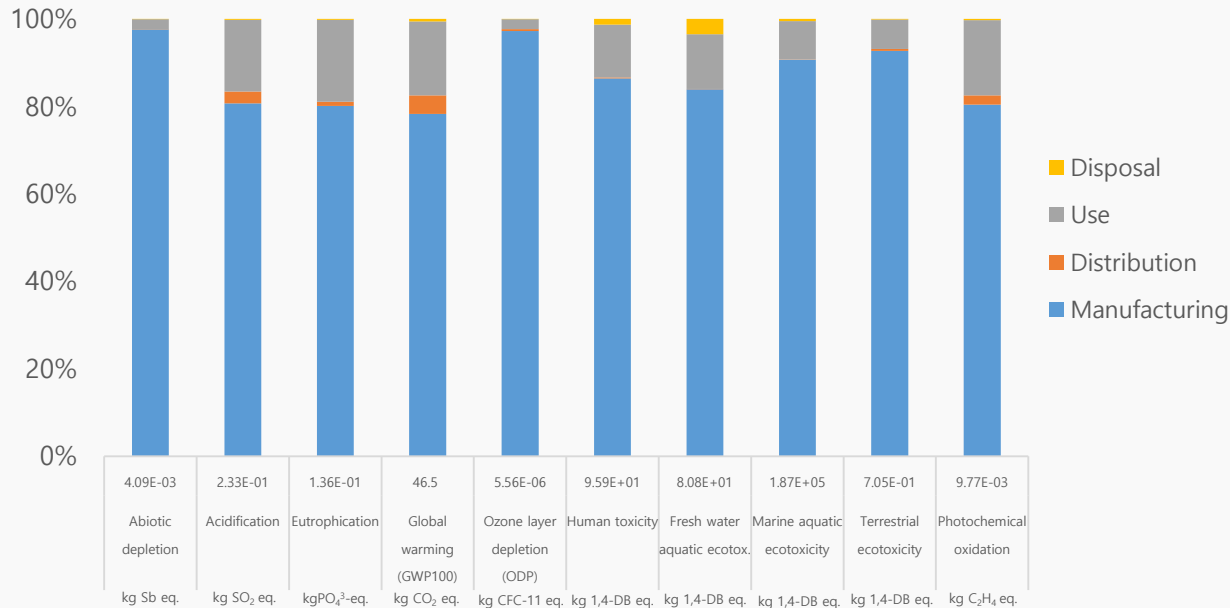


Model name	SM-A256B(Galaxy A25 5G)
Dimension	161.0 x 76.5 x 8.3 mm
Display	OLED 6.5"
Weight	Product&Acc. : 216.88 g Packages : 77.29 g

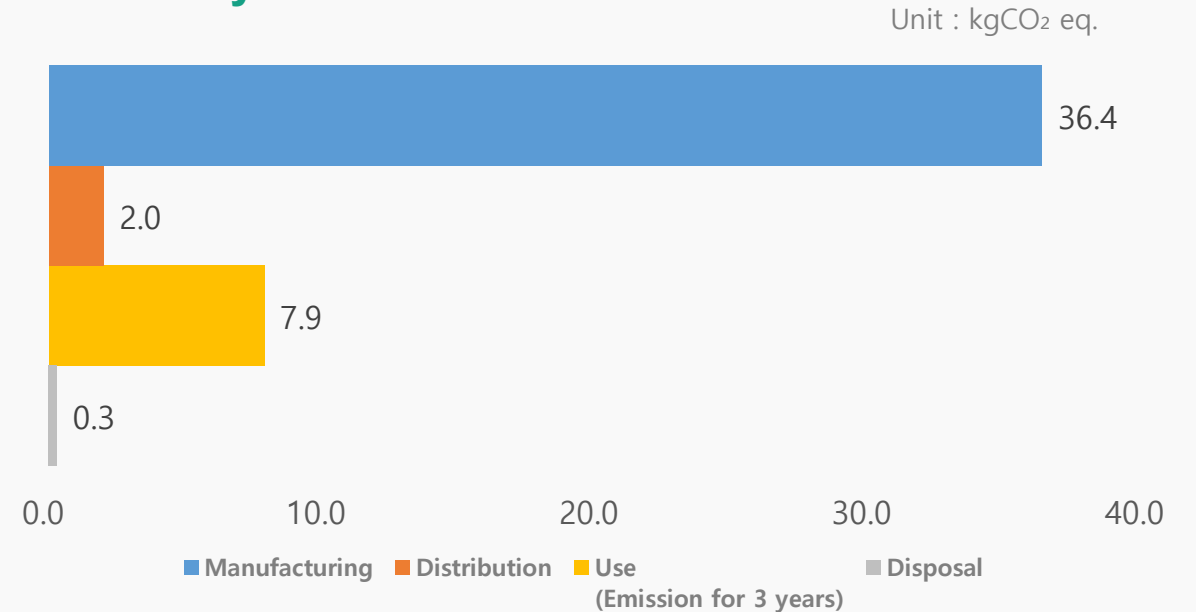
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



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Life Cycle Assessment for Galaxy A25 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

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Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

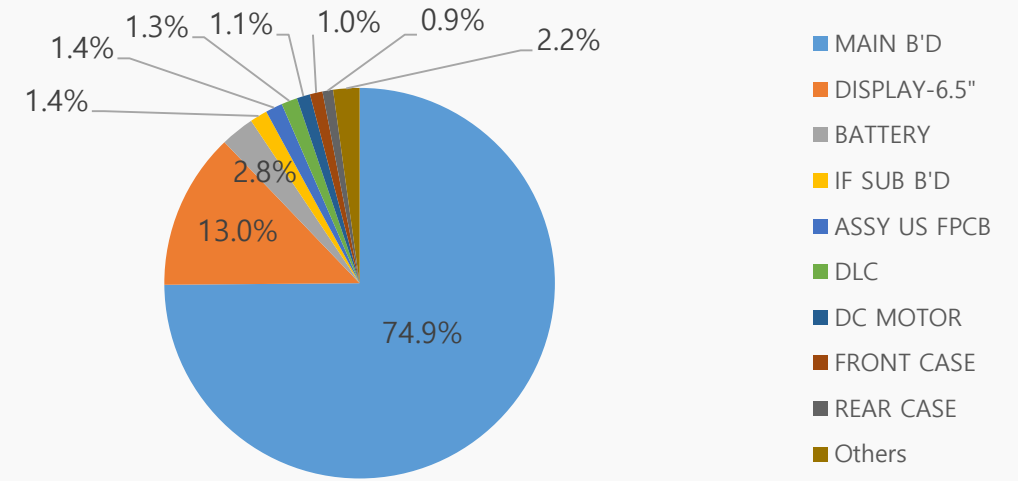
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

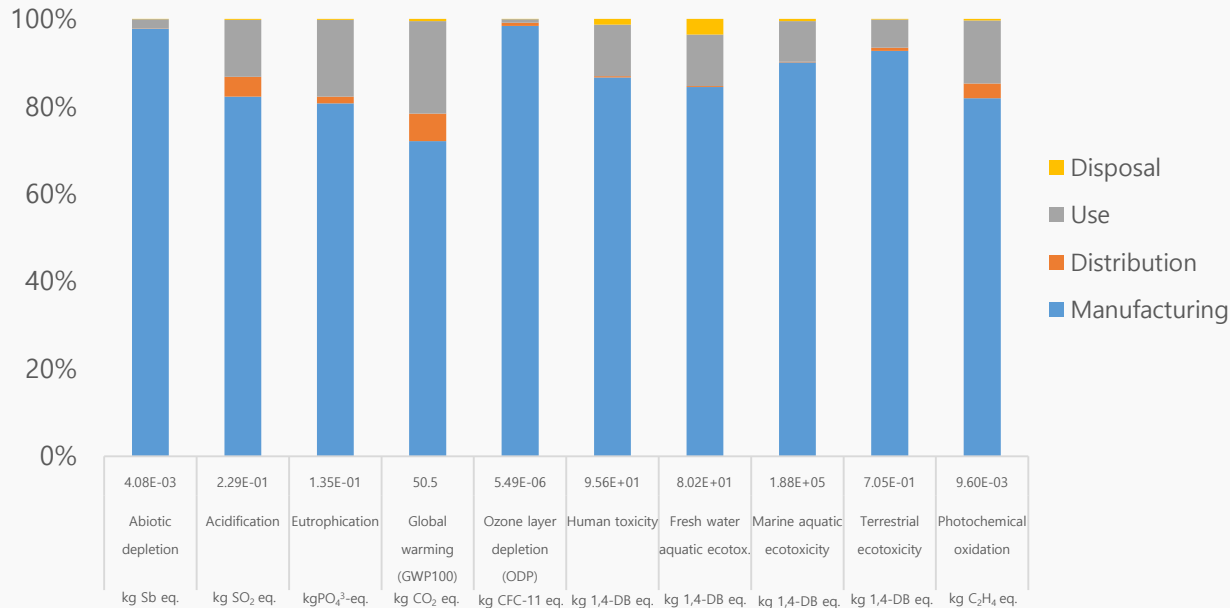


Model name	SM-A256U(Galaxy A25 5G)
Dimension	161.0 x 76.5 x 8.3 mm
Display	OLED 6.5"
Weight	Product&Acc. : 216.88 g Packages : 77.29 g

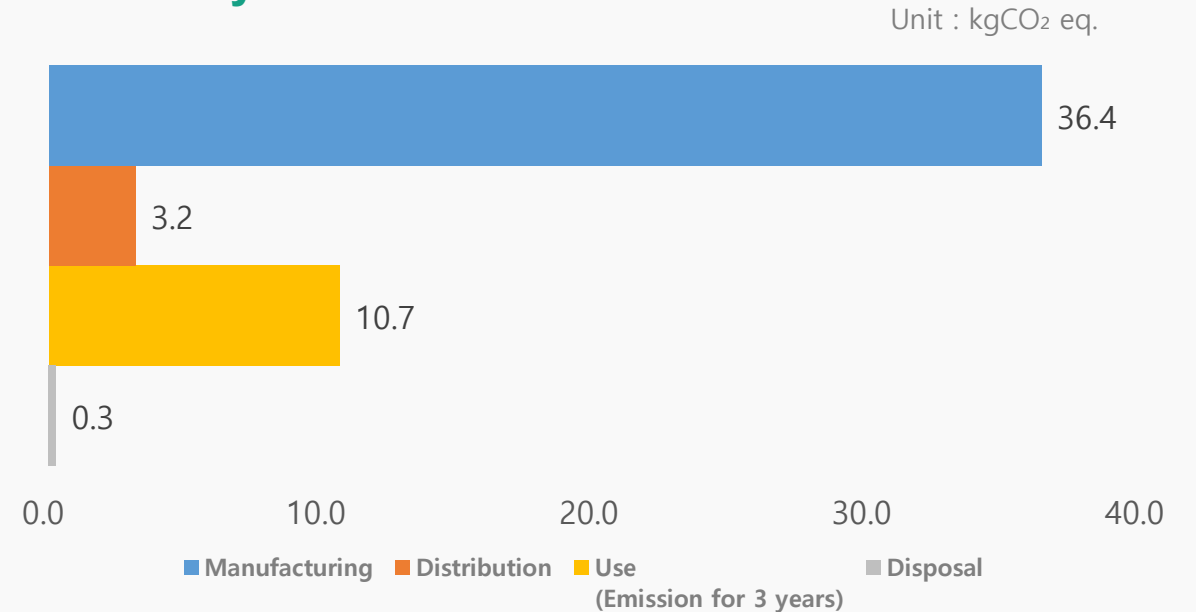
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A15

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Lifecycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

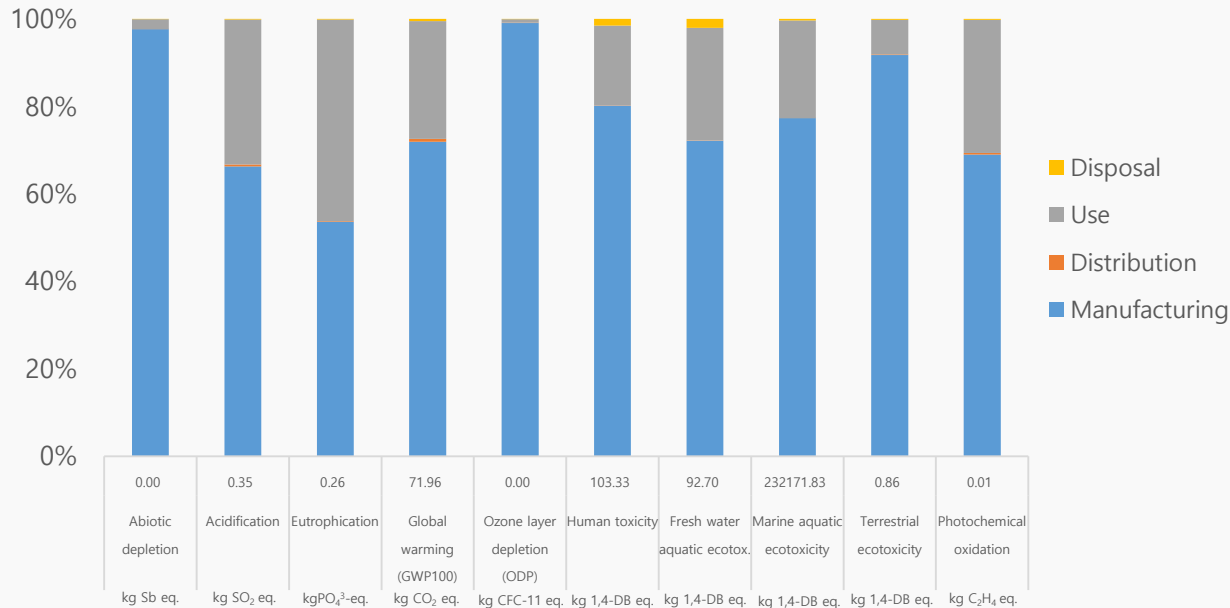
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to SEA
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

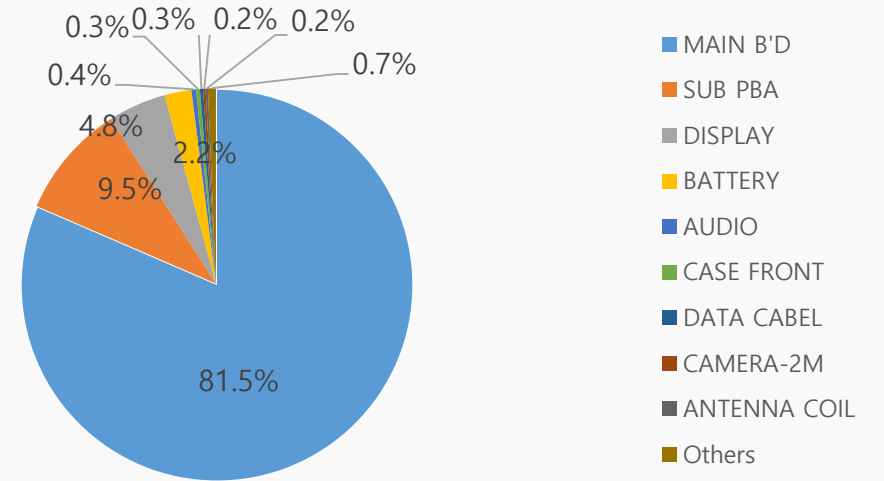


Model name	SM-A155E(Galaxy A15)
Dimension	160.1 x 76.8 x 8.4 mm
Display	6.5" AMOLED 2X
Weight	Product&Acc. : 222.06 g Packages : 91.7 g

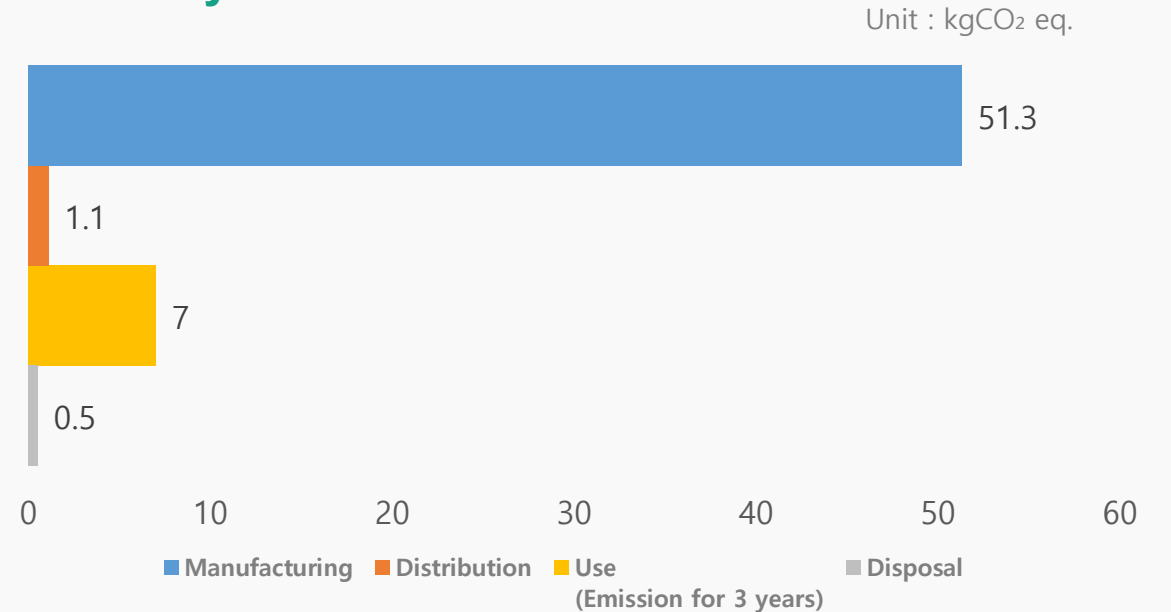
● Characterized Environment Impact



● Global Warming Impact Profile



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A15 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Lifecycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

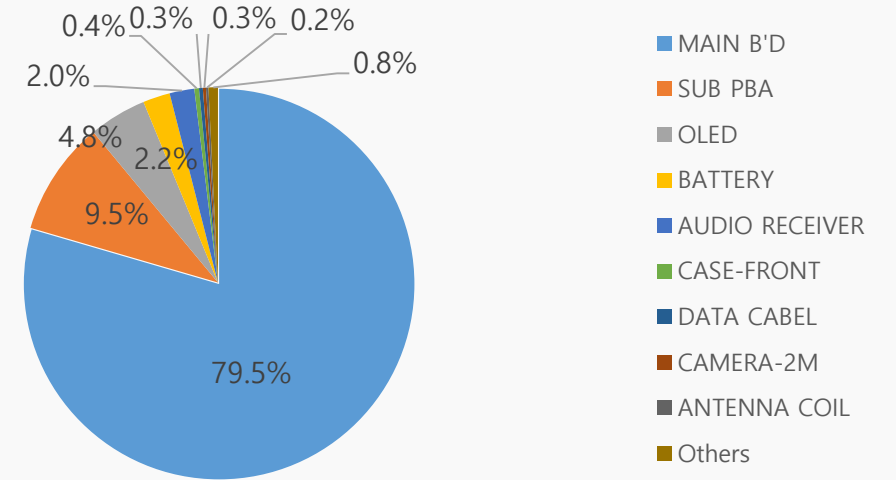
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

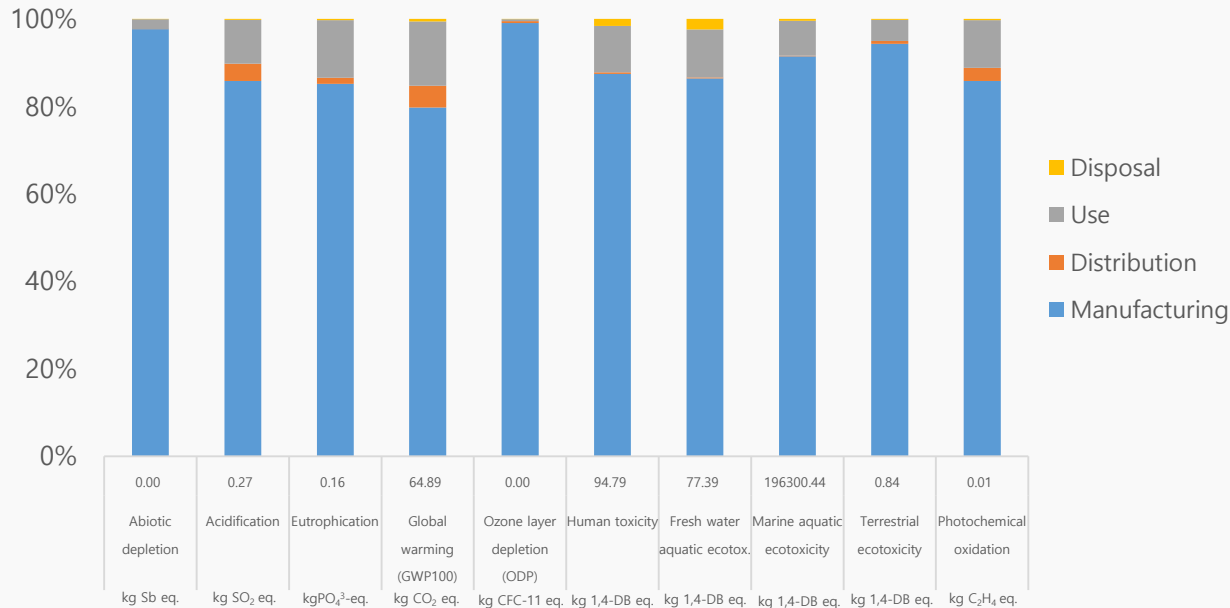


Model name	SM-A156U(Galaxy A15 5G)
Dimension	160.1 x 76.8 x 8.4 mm
Display	6.5" AMOLED 2X
Weight	Product&Acc. : 222.06 g Packages : 56.4 g

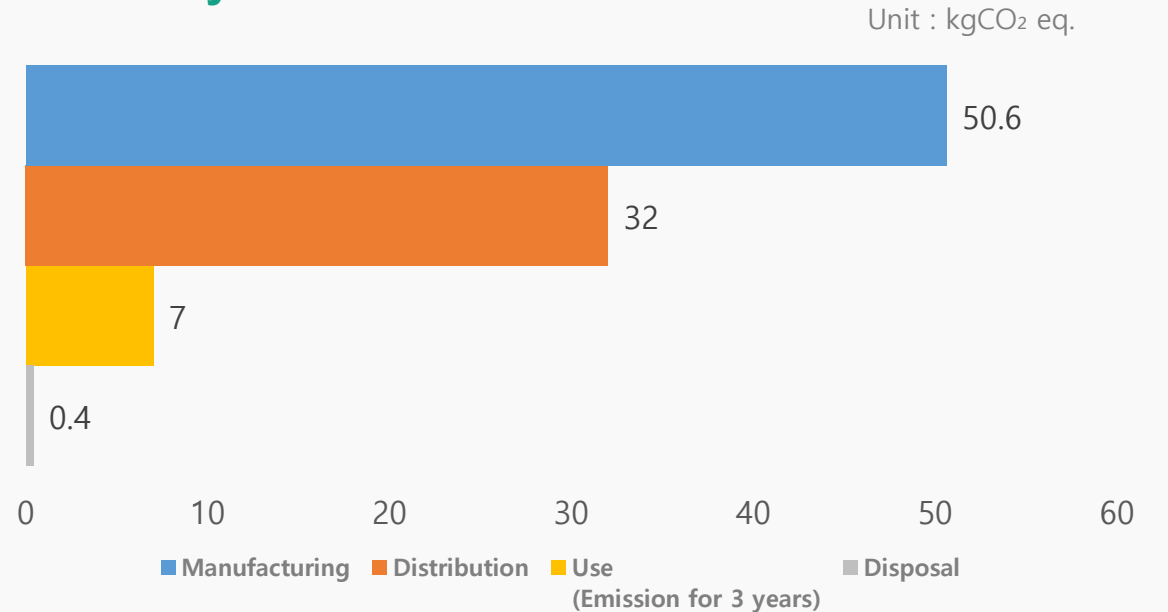
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A15 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Lifecycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

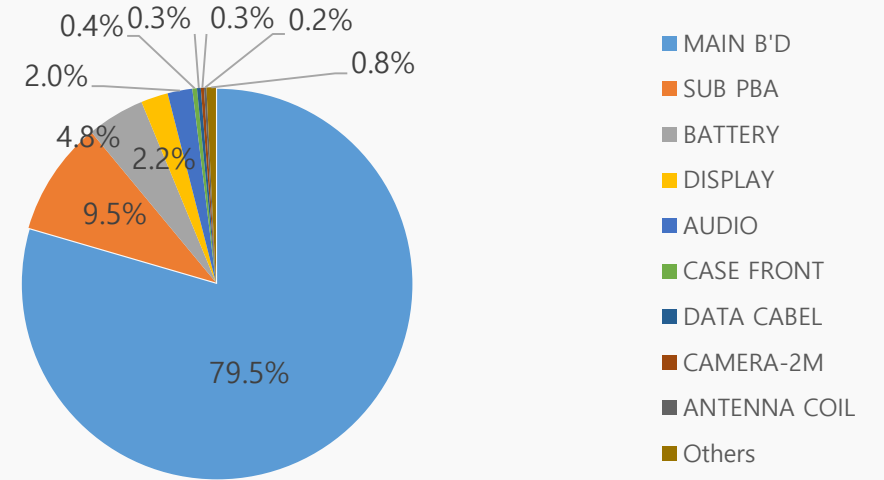
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to SEA
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

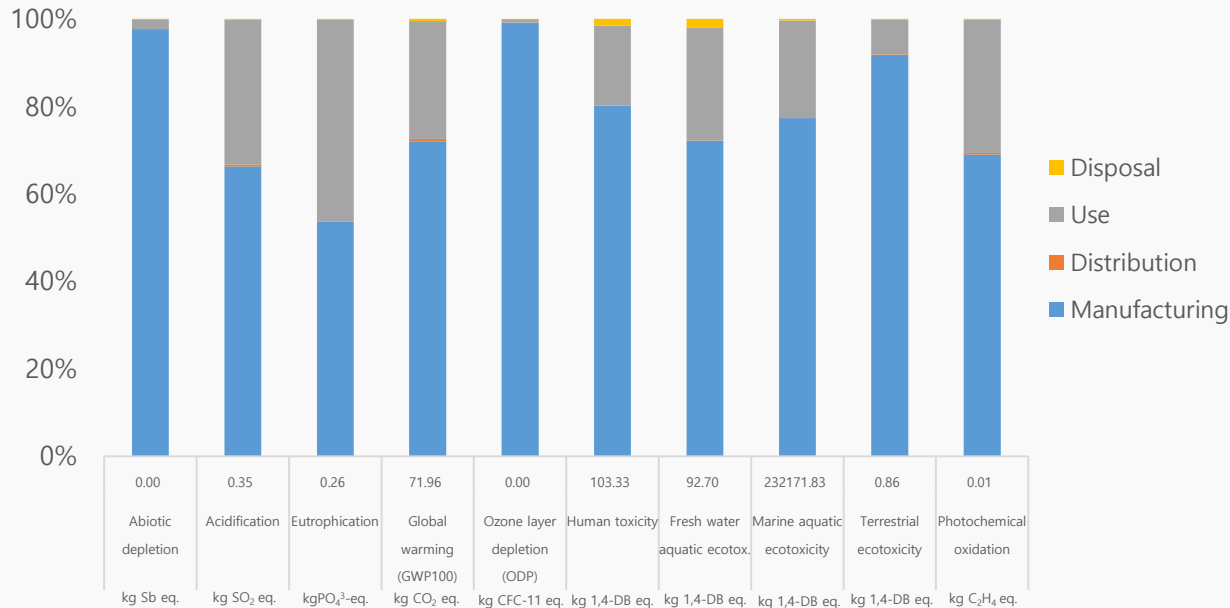


Model name	SM-A156E(Galaxy A15 5G)
Dimension	160.1 x 76.8 x 8.4 mm
Display	6.5" AMOLED 2X
Weight	Product&Acc. : 222.06 g Packages : 91.7 g

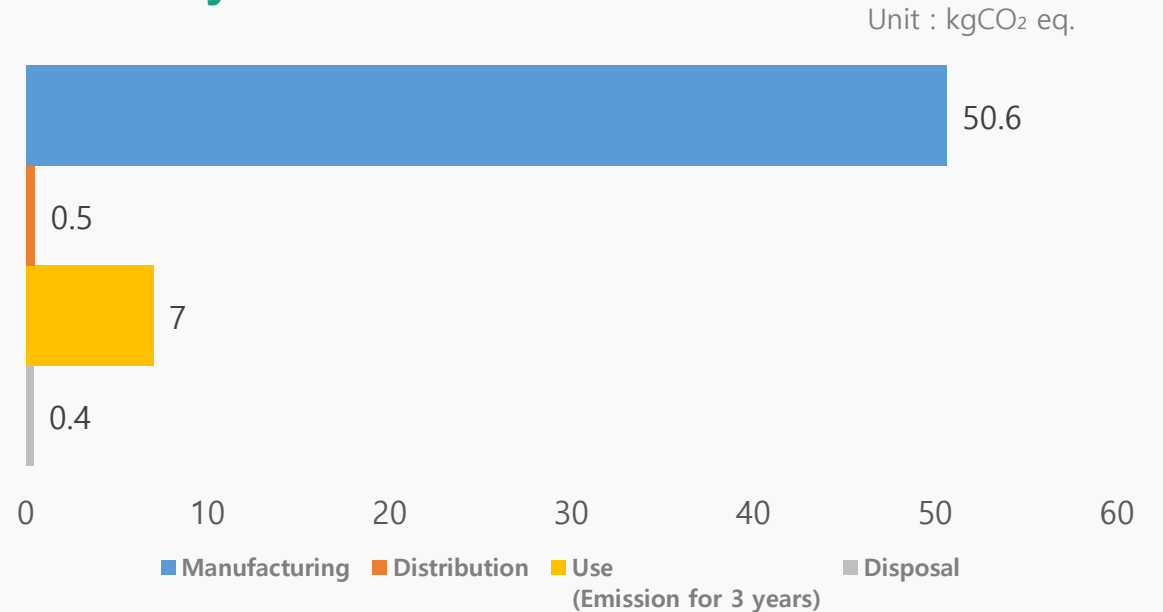
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy M34 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

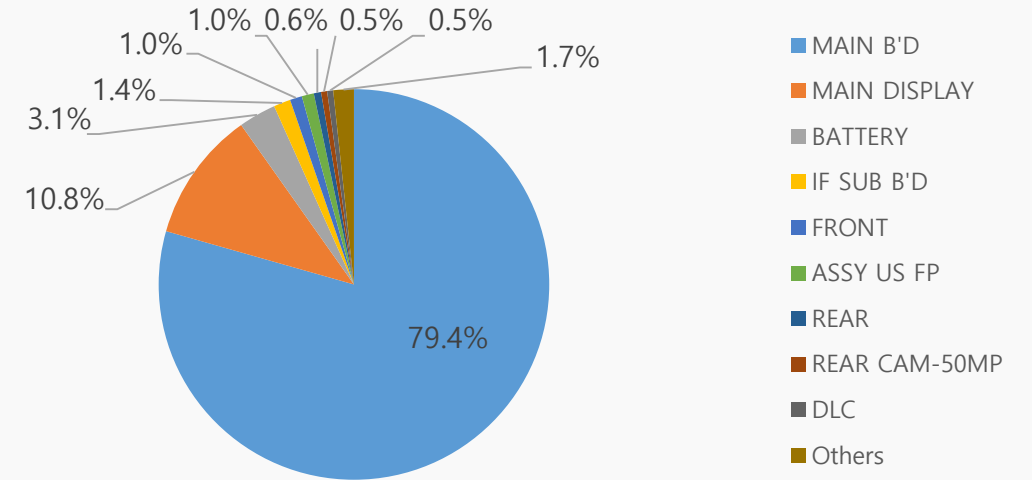
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From India to India
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

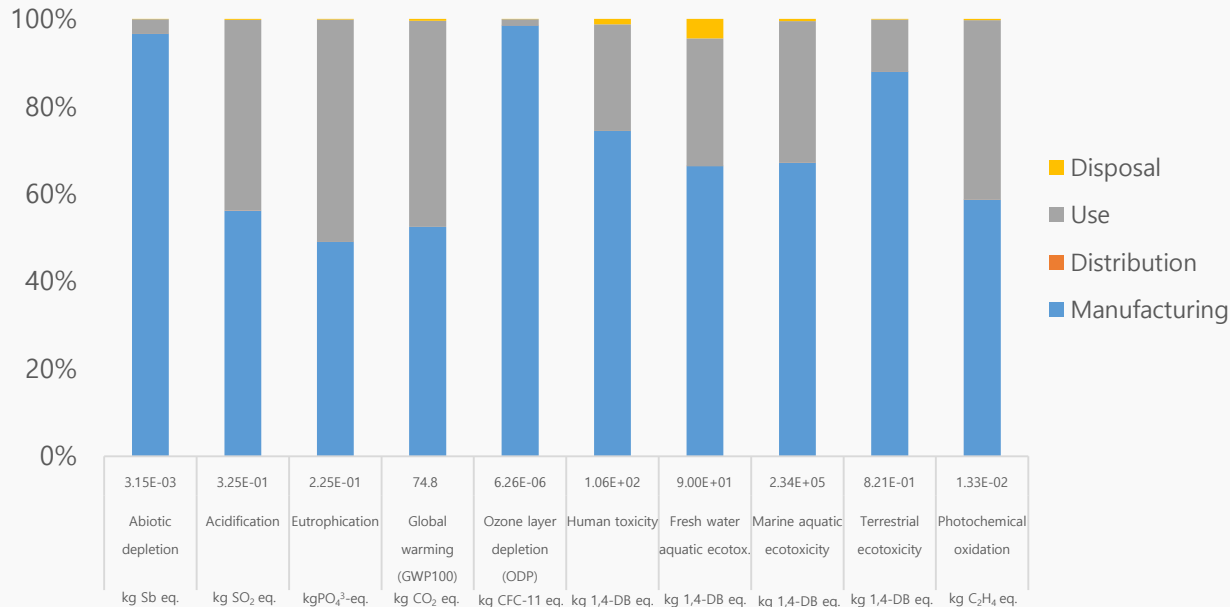


Model name	SM-M346B(Galaxy M34 5G)
Dimension	161.7 x 77.2 x 8.8 mm
Display	OLED 6.5"
Weight	Product&Acc. : 229.16 g Packages : 96.92g

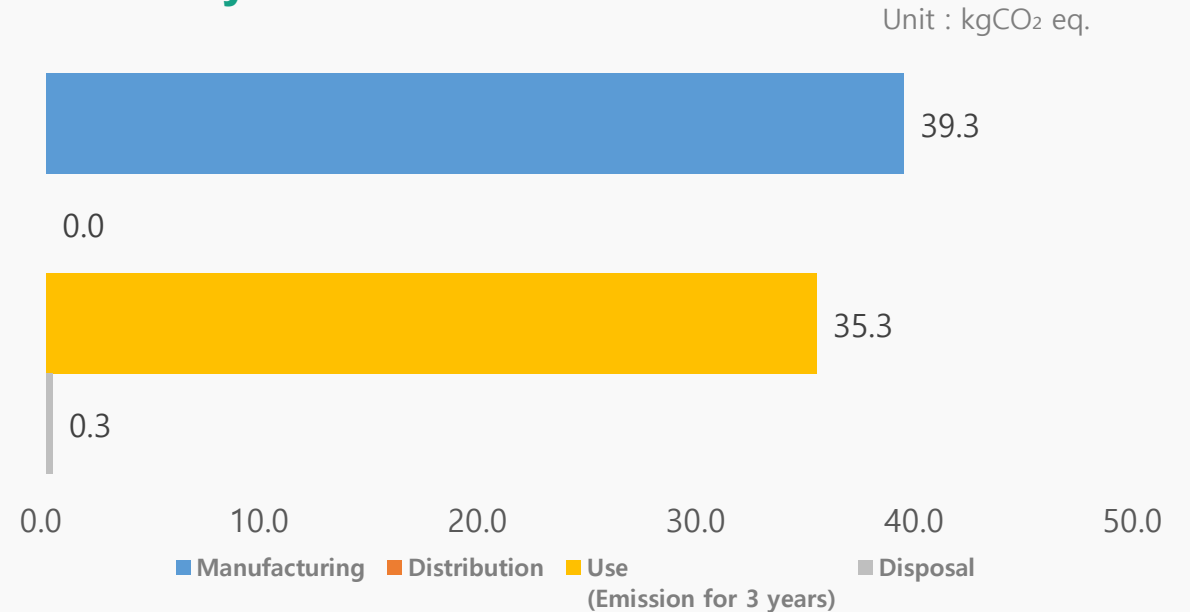
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy M44 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

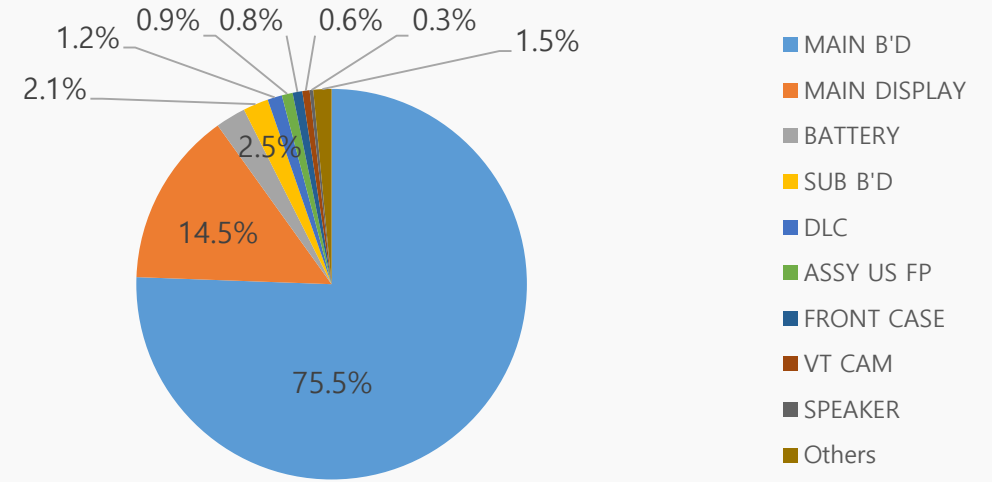
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to KOR
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

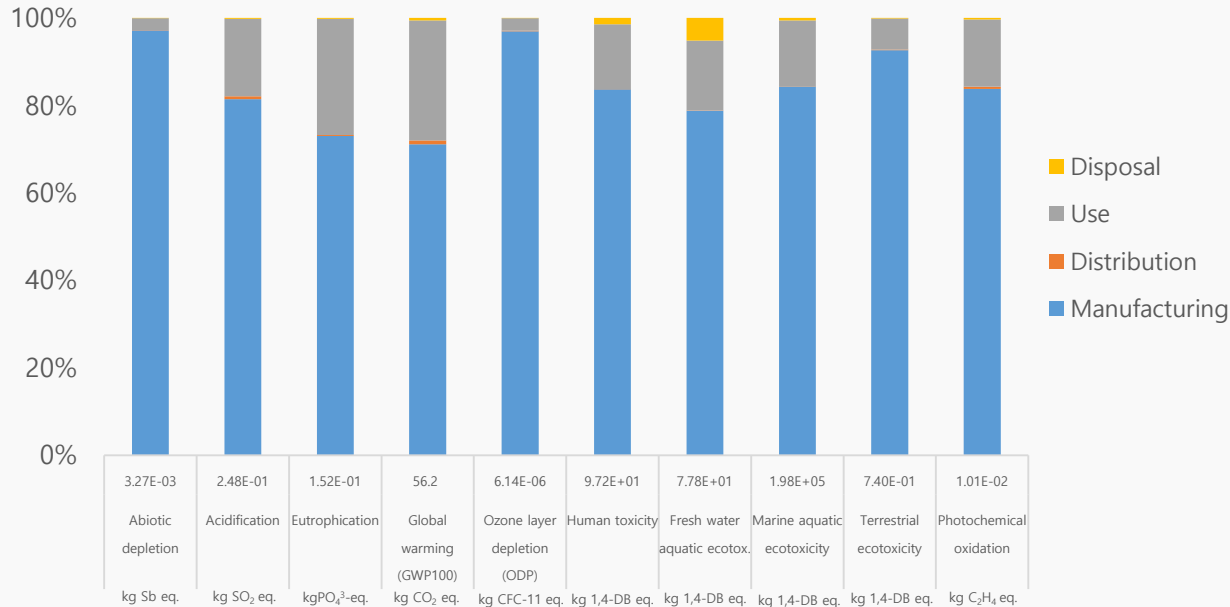


Model name	SM-M446K(Galaxy M44 5G)
Dimension	167.7 x 78.0 x 9.1 mm
Display	FHD+ 6.6"
Weight	Product&Acc. : 235.95 g Packages : 102.19 g

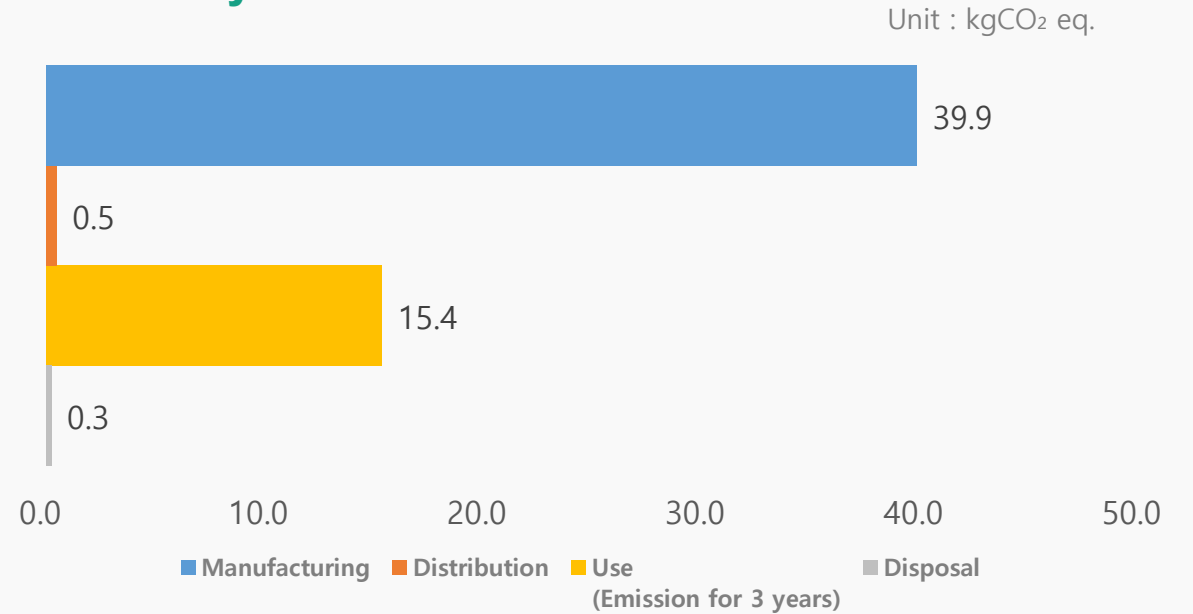
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy S23 FE

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

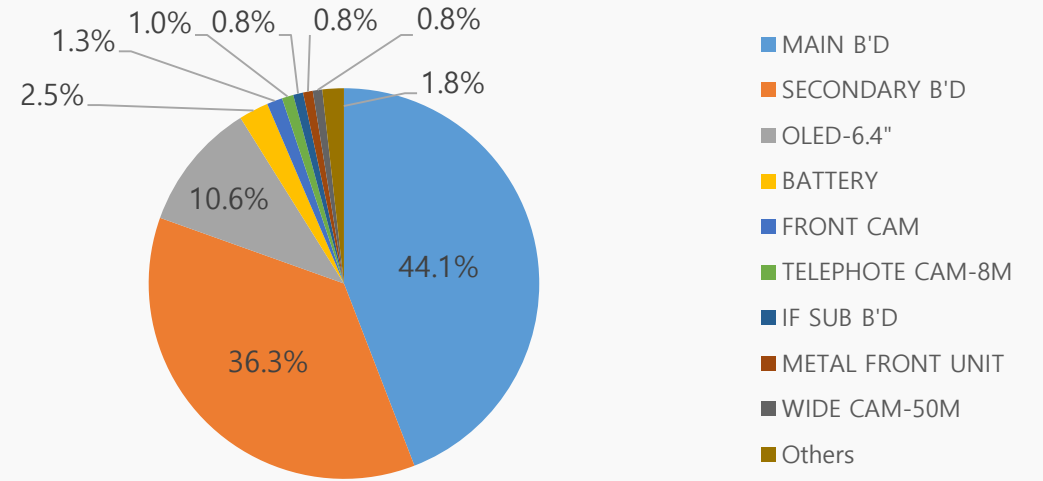
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

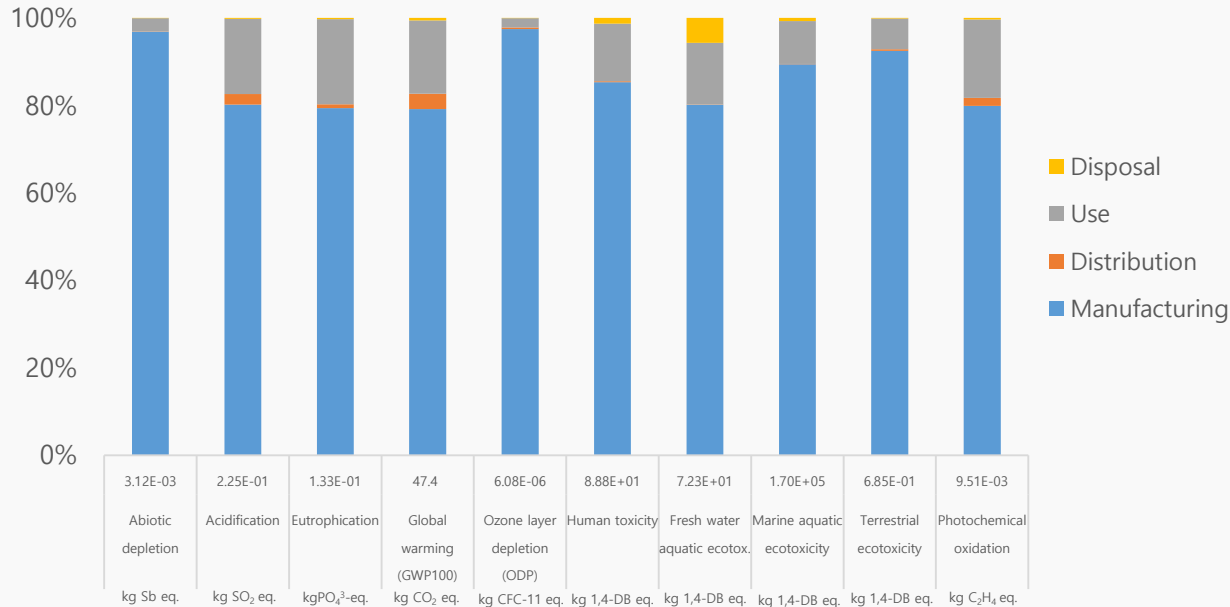


Model name	SM-S711B(Galaxy S23 FE)
Dimension	158.0 x 76.5 x 8.2 mm
Display	OLED 6.4"
Weight	Product&Acc. : 228.99 g Packages : 116.54 g

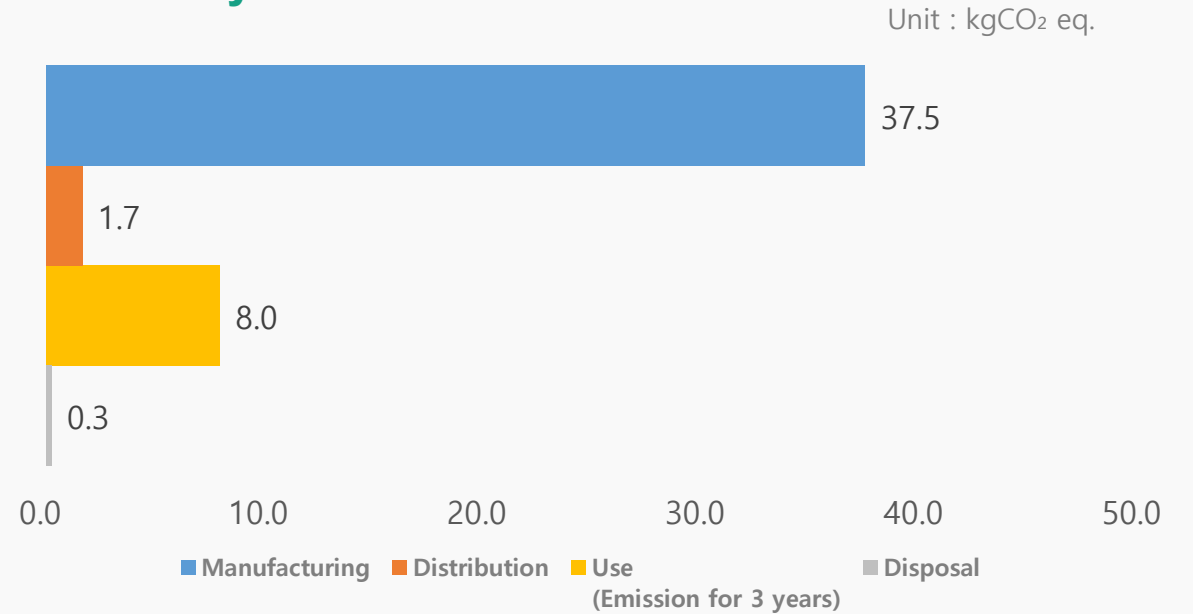
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy S23 FE

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

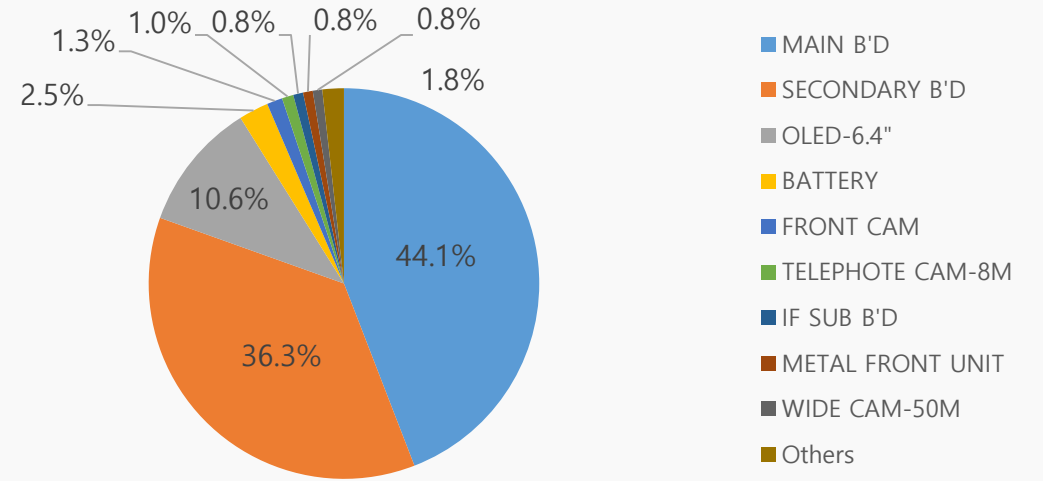
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

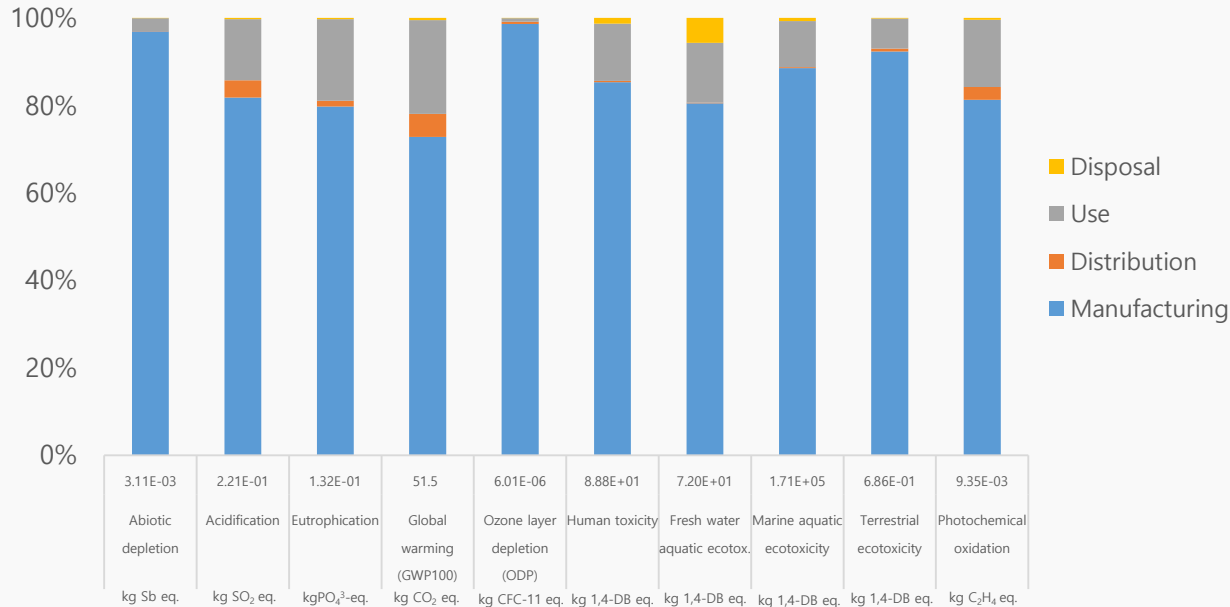


Model name	SM-S711U(Galaxy S23 FE)
Dimension	158.0 x 76.5 x 8.2mm
Display	OLED 6.4"
Weight	Product&Acc. : 228.99 g Packages : 116.54 g

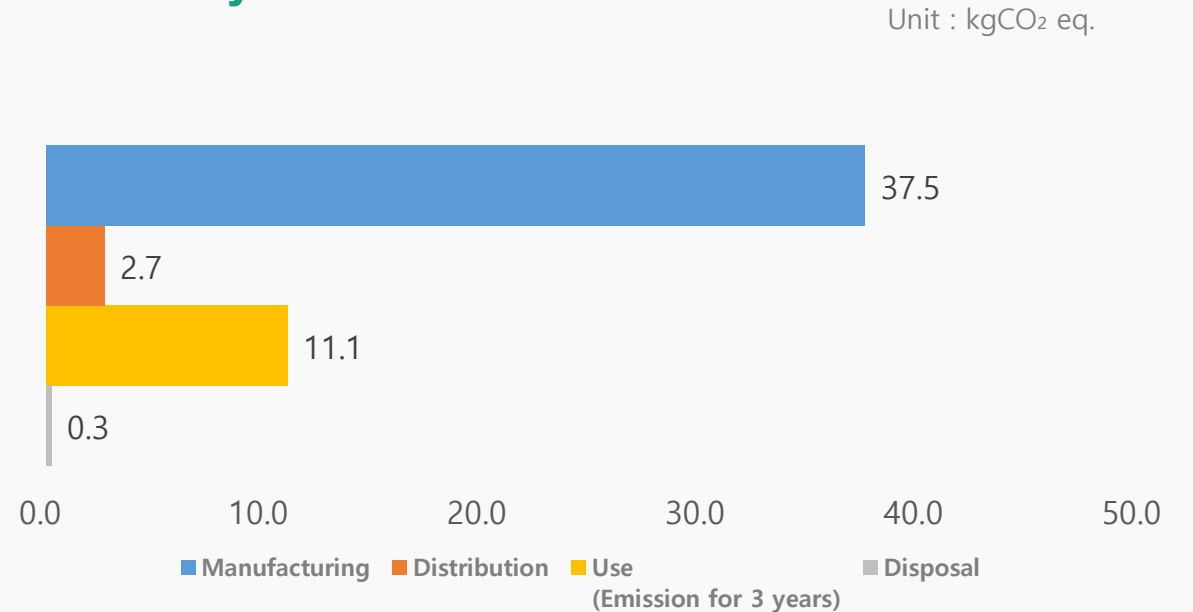
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy Z Flip5

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

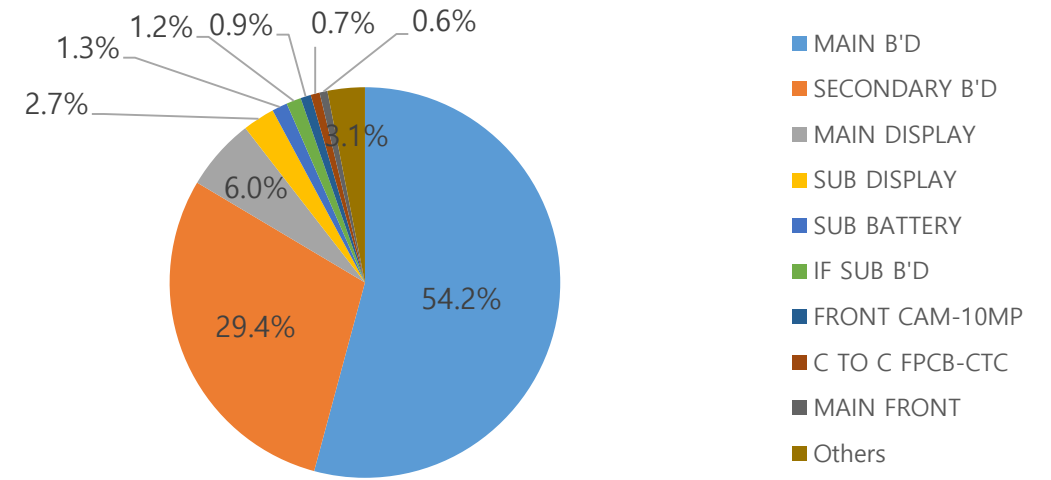
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

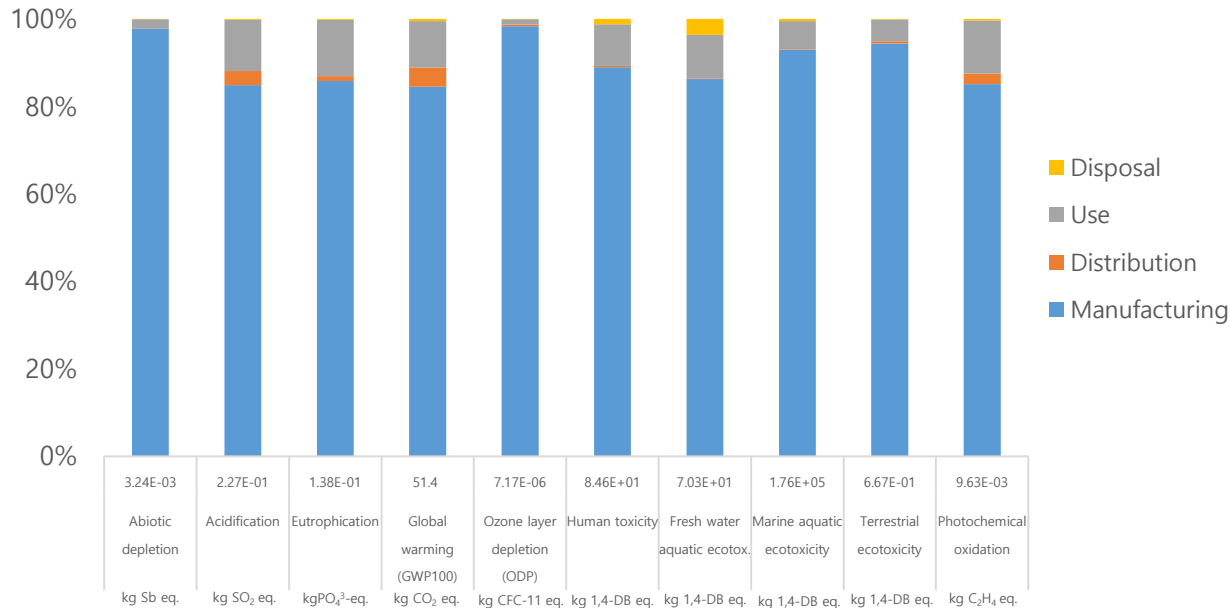


Model name	SM-F731B(Galaxy Z Flip5)
Dimension	165.1 x 71.9 x 6.9 mm
Display	OLED 6.7" / 3.4"
Weight	Product&Acc. : 206.99 g Packages : 126.60 g

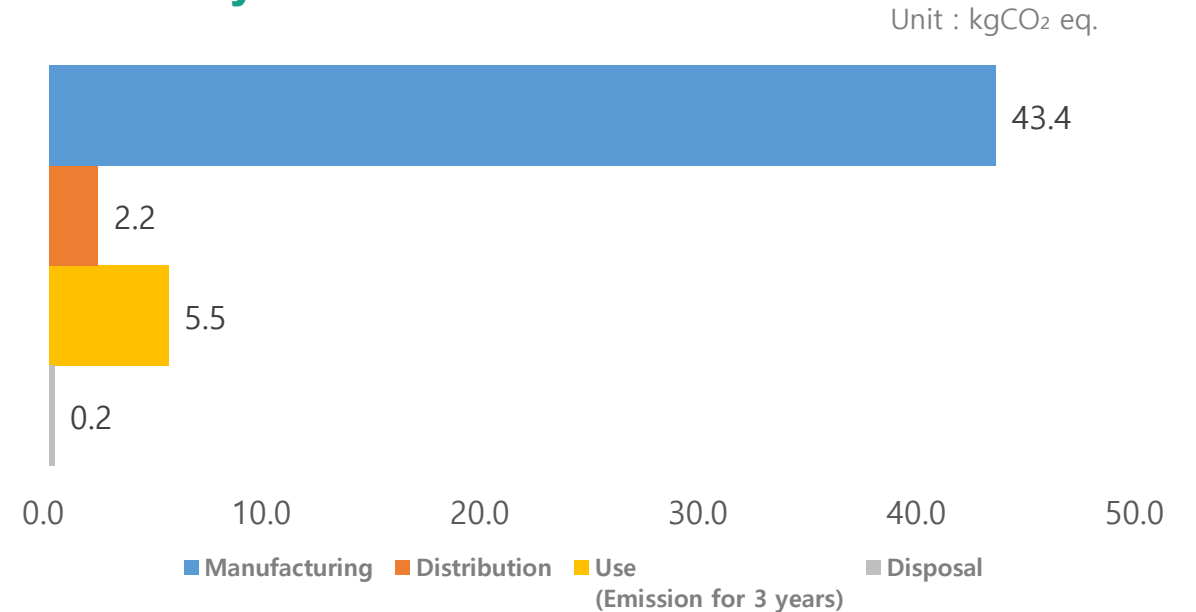
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy Z Flip5

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

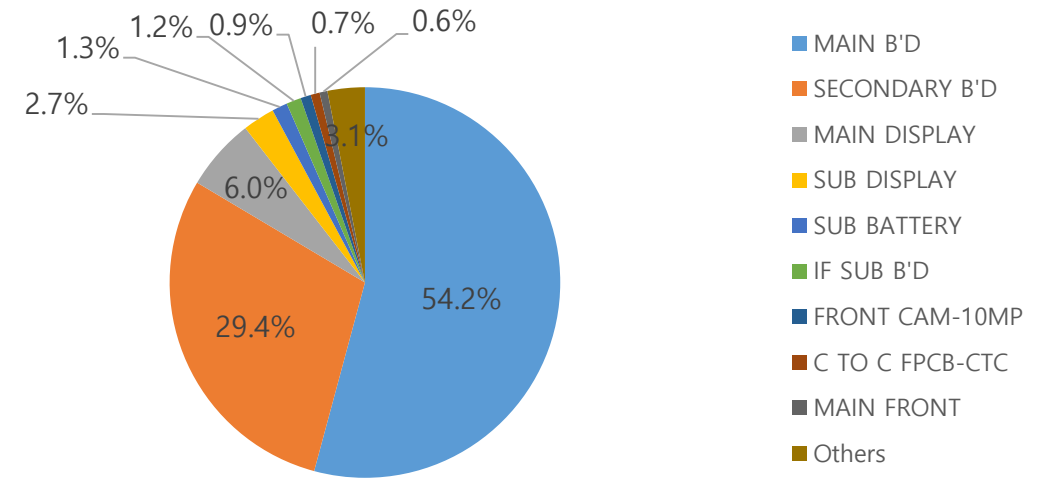
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

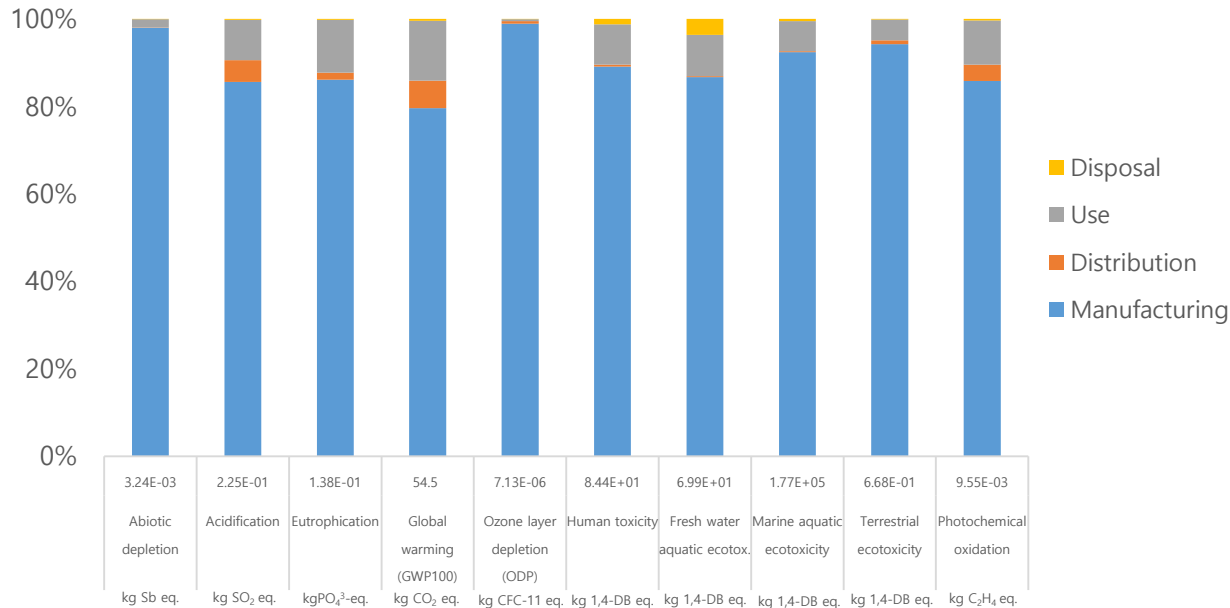


Model name	SM-F731U(Galaxy Z Flip5)
Dimension	165.1 x 71.9 x 6.9 mm
Display	OLED 6.7" / 3.4"
Weight	Product&Acc. : 206.99 g Packages : 126.60 g

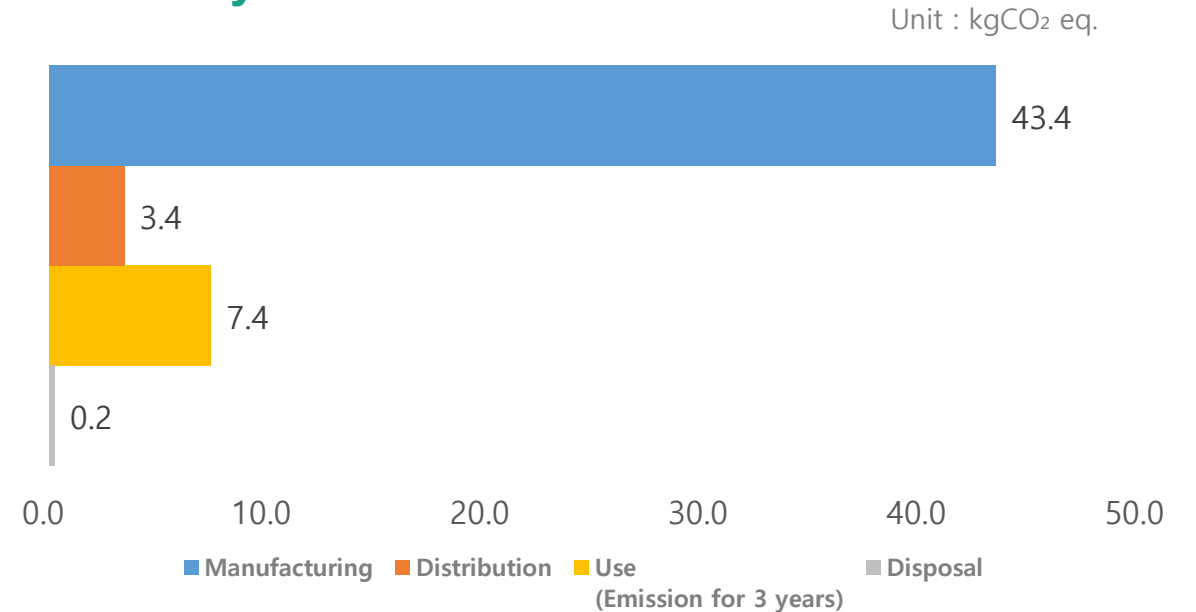
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy Z Fold5

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

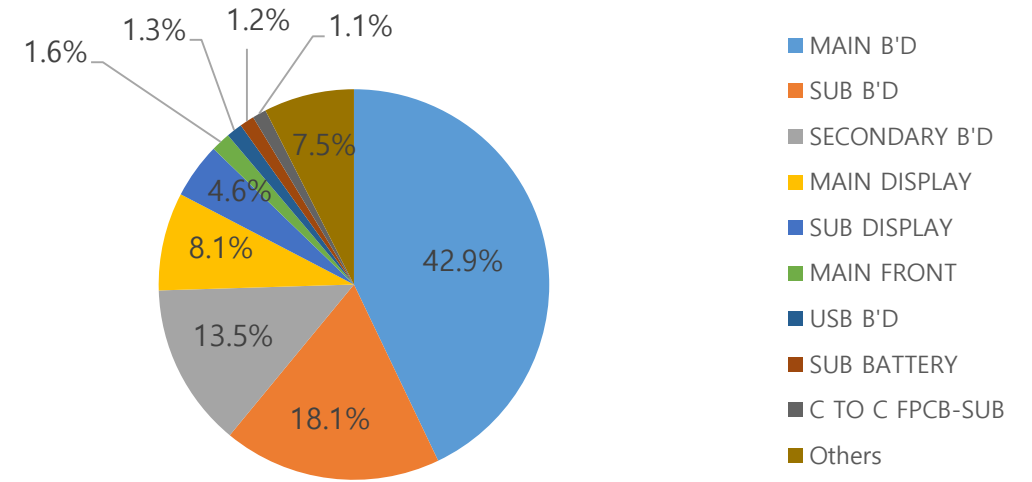
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

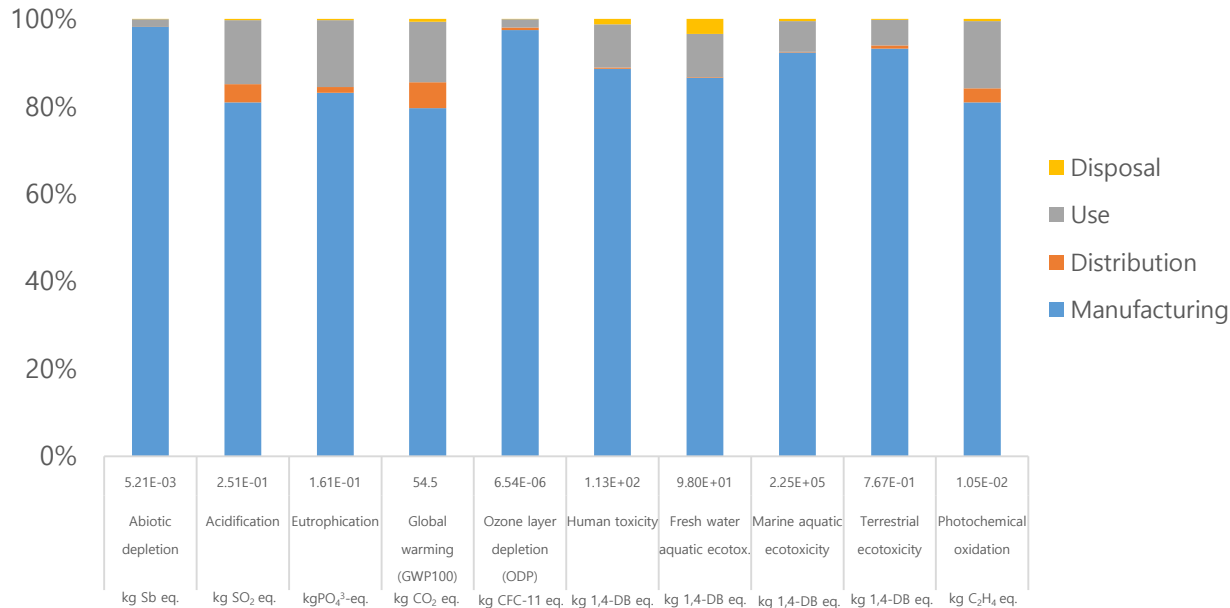


Model name	SM-F946B(Galaxy Z Fold5)
Dimension	154.9 x 129.9 x 6.1 mm
Display	OLED 7.6" / 6.2"
Weight	Product&Acc. : 272.99 g Packages : 206.99 g

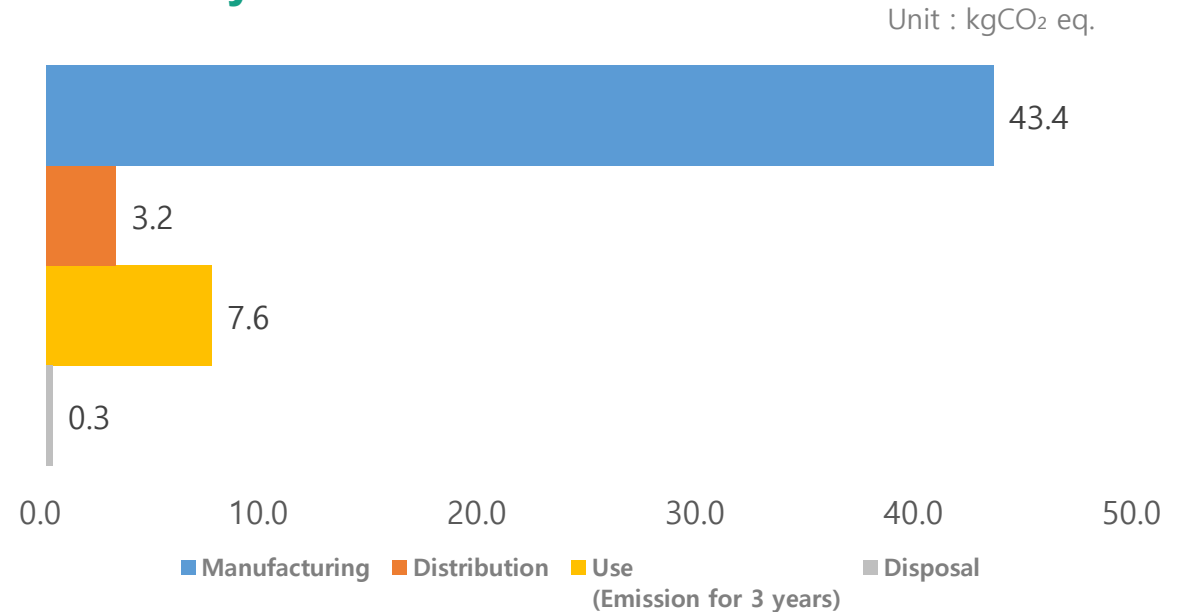
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy Z Fold5

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.5.0.0 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.9.1
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.09 / the Netherlands, 1997 as provided in the SimaPro 9.5.0.0 LCA tool
LCA software	SimaPro 9.5.0.0

● System boundary of LCA

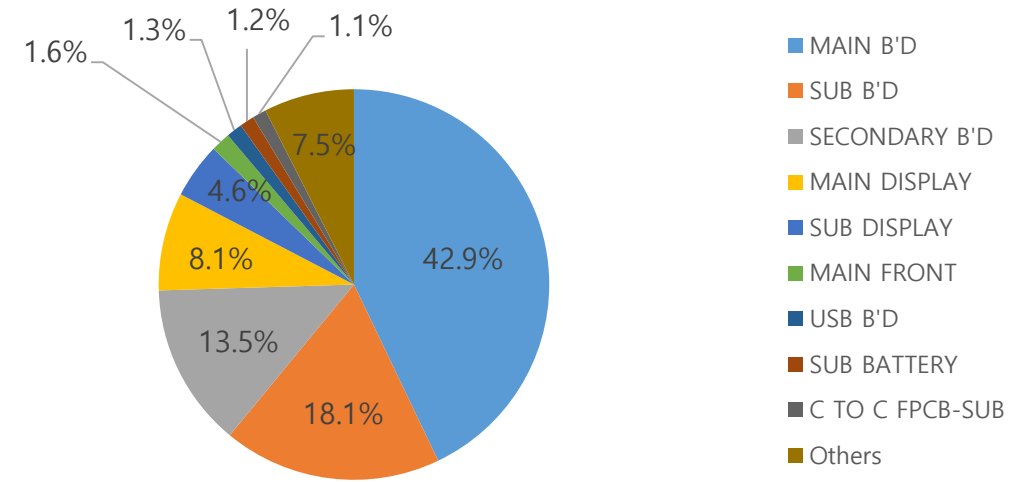
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

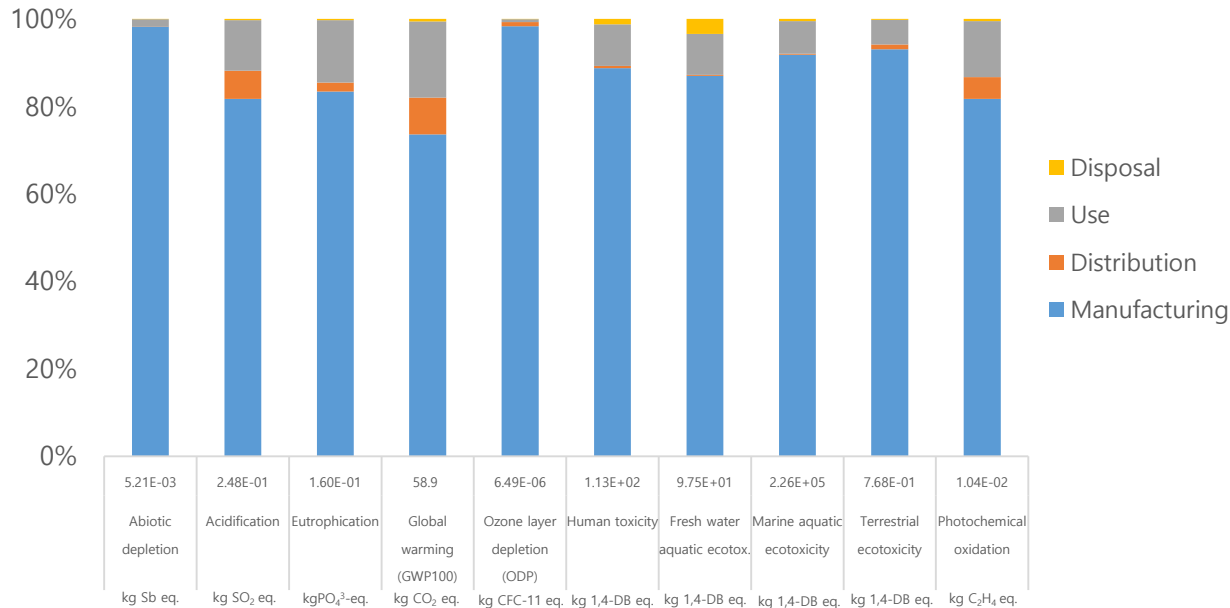


Model name	SM-F946U(Galaxy Z Fold5)
Dimension	154.9 x 129.9 x 6.1 mm
Display	OLED 7.6" / 6.2"
Weight	Product&Acc. : 272.99 g Packages : 206.99 g

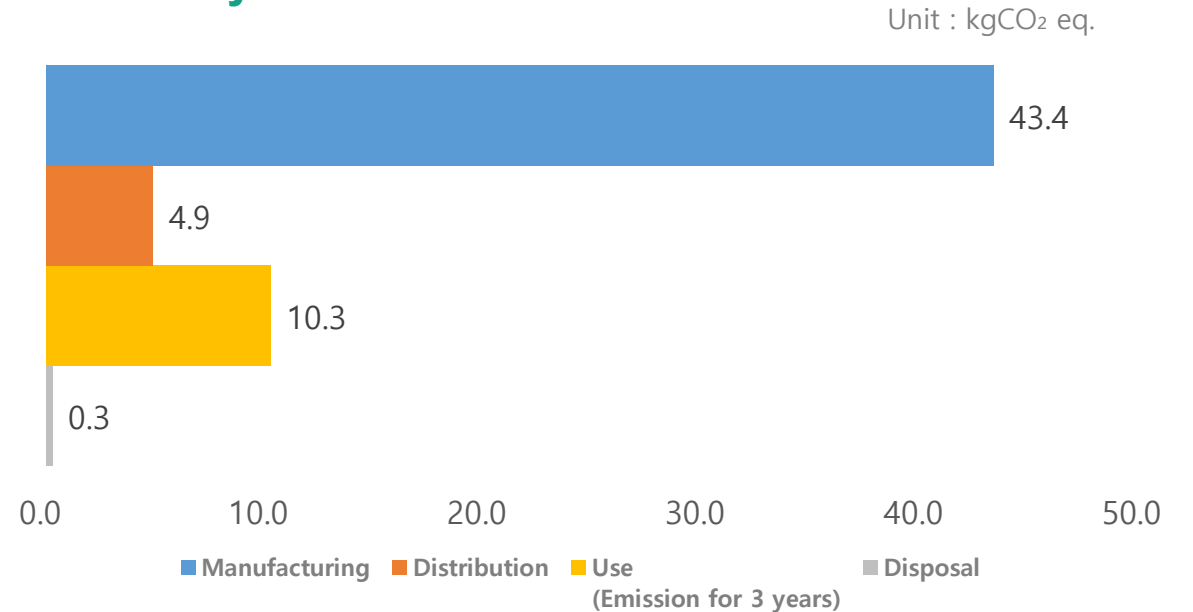
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy M54 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

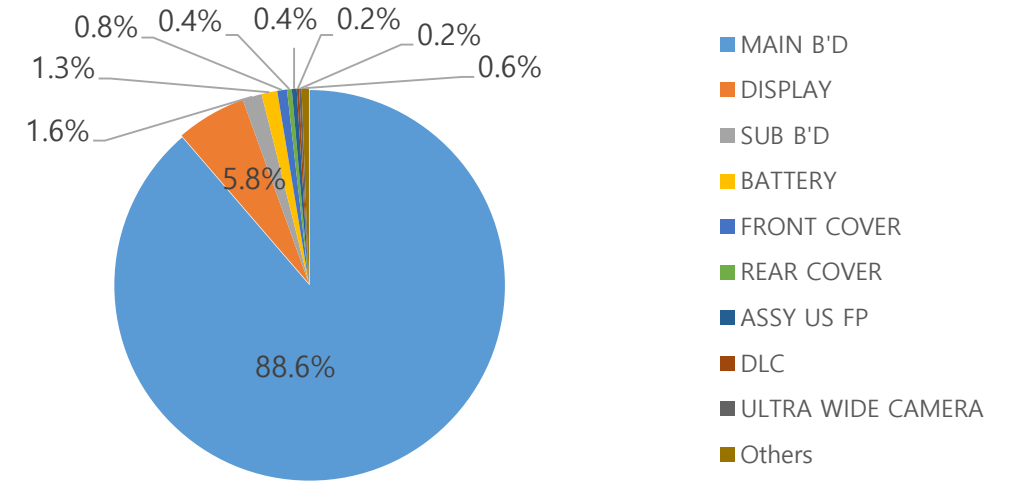
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to UAE
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

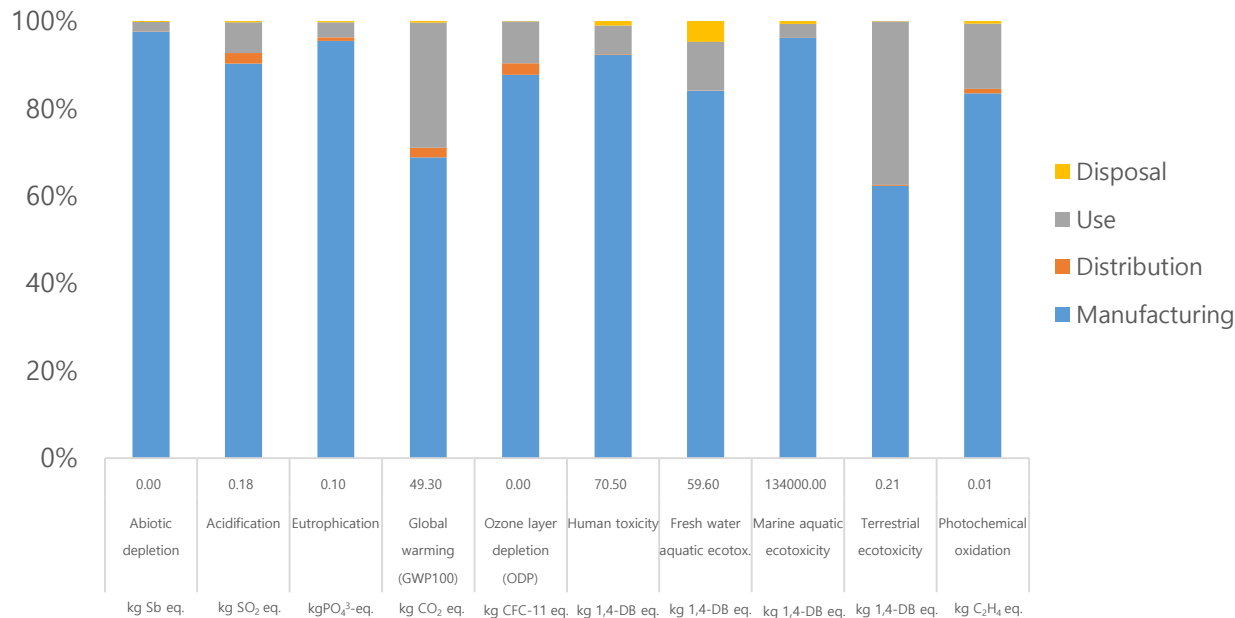


Model name	SM-M546B(Galaxy M54 5G)
Dimension	164.9 x 77.3 x 8.4 mm
Display	6.7" OLED
Weight	Product&Acc. : 220.18 g Packages : 111.33 g

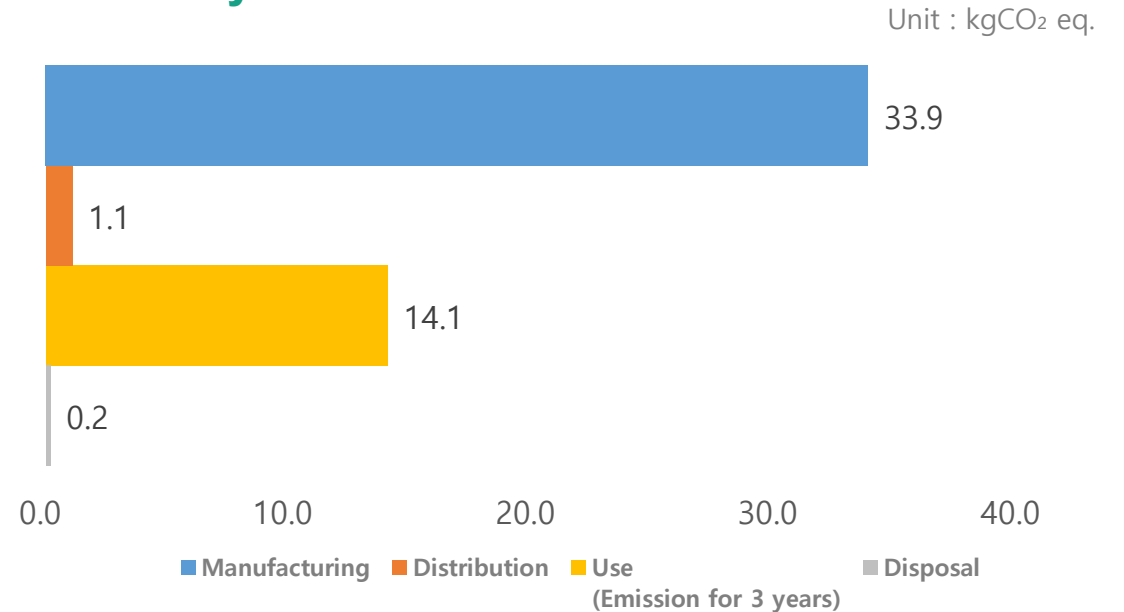
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy M14 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

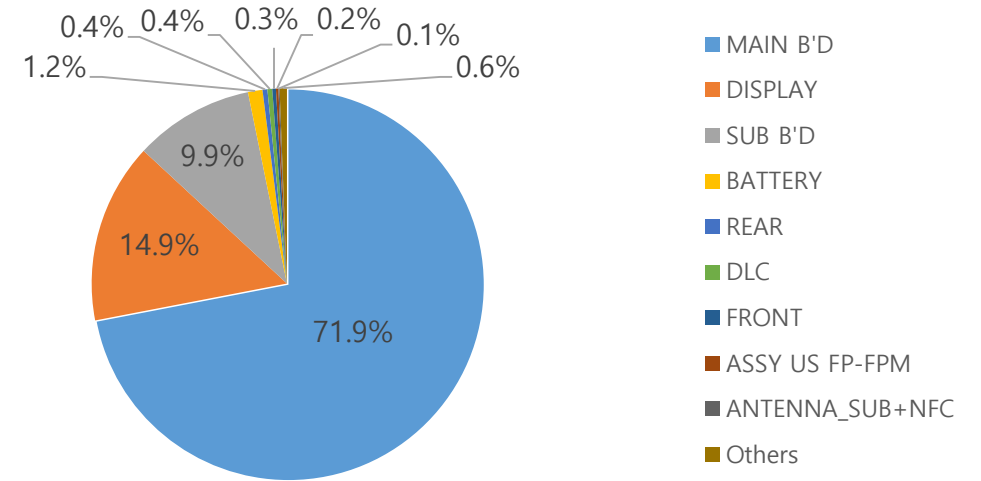
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to UAE
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

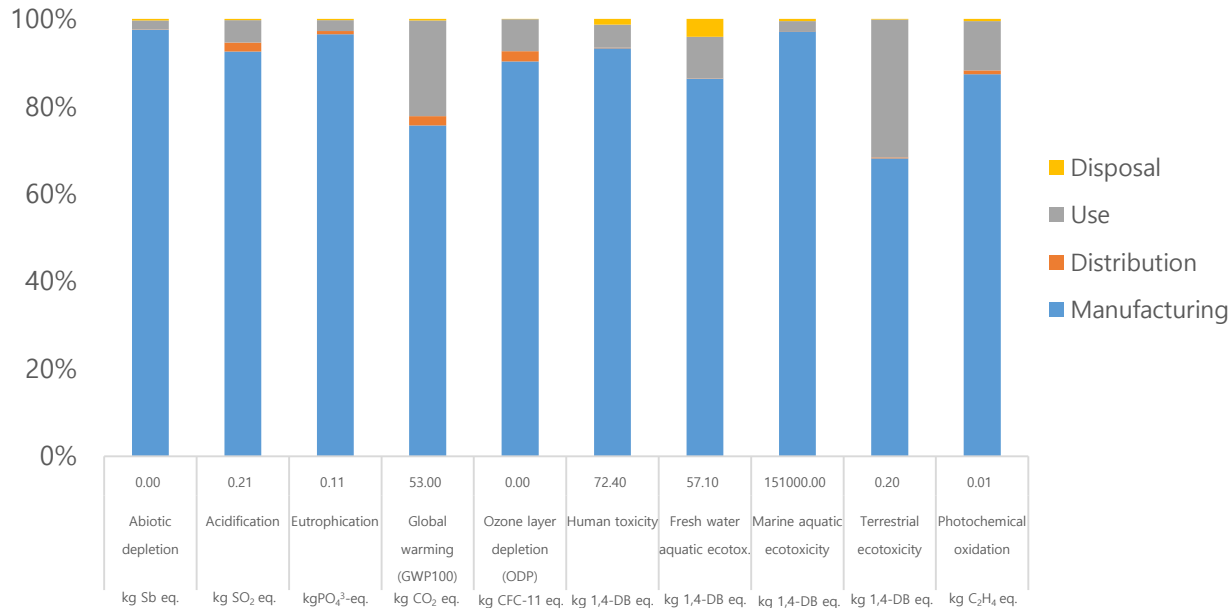


Model name	SM-M146B(Galaxy M14 5G)
Dimension	166.8 x 77.2 x 9.4 mm
Display	6.6" OLED
Weight	Product&Acc. : 226.52 g Packages : 71.85 g

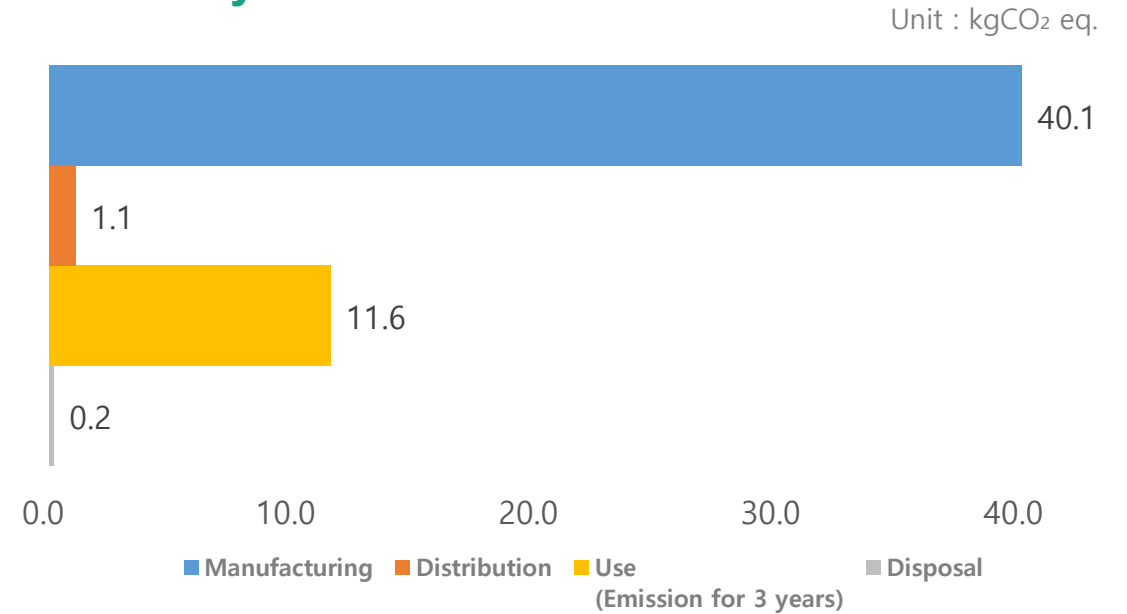
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A54 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

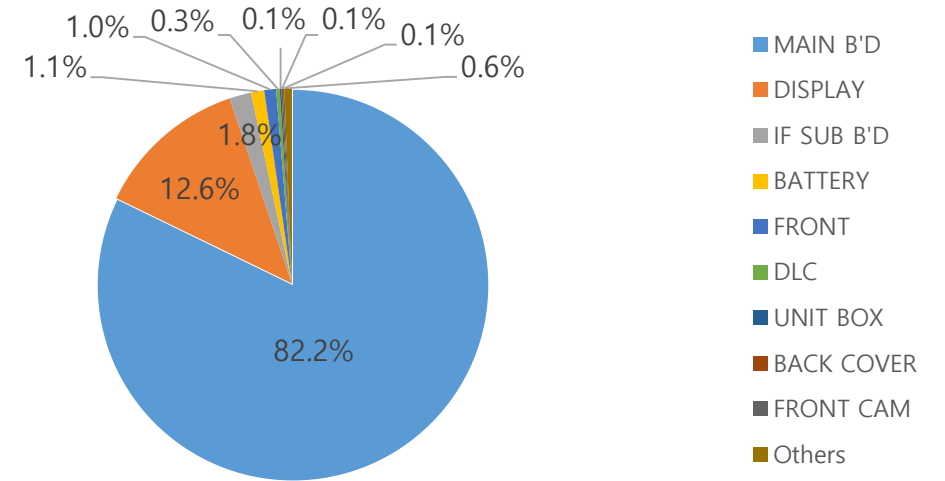
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

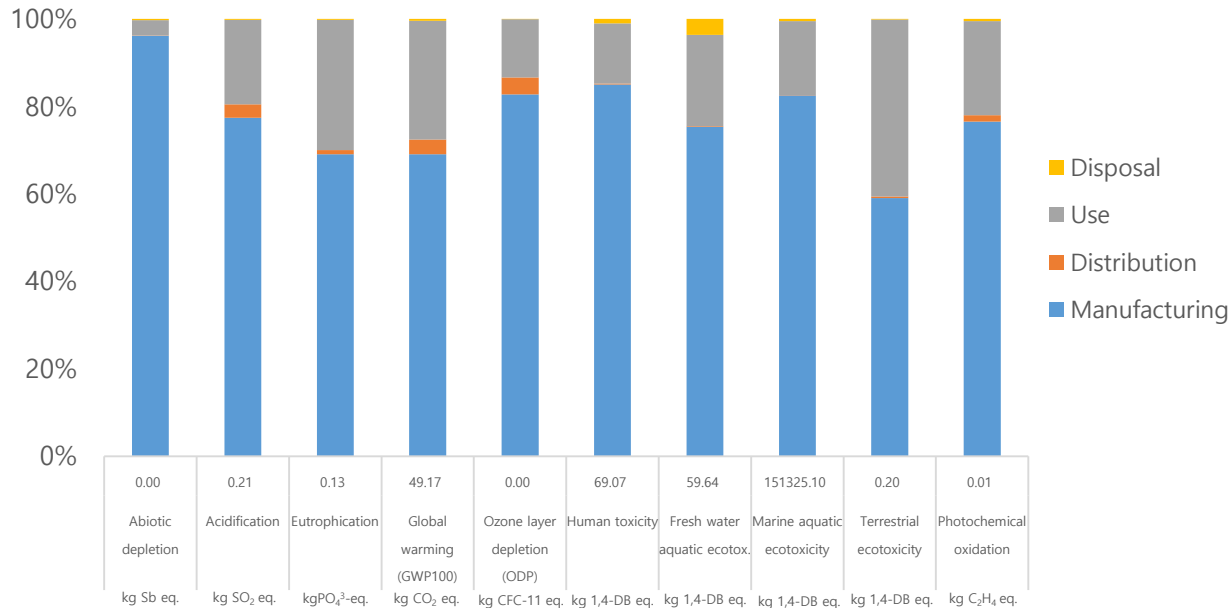


Model name	SM-A546U(Galaxy A54 5G)
Dimension	158.2 x 76.7 x 8.2 mm
Display	6.4" OLED
Weight	Product&Acc. : 223.42 g Packages : 108.72 g

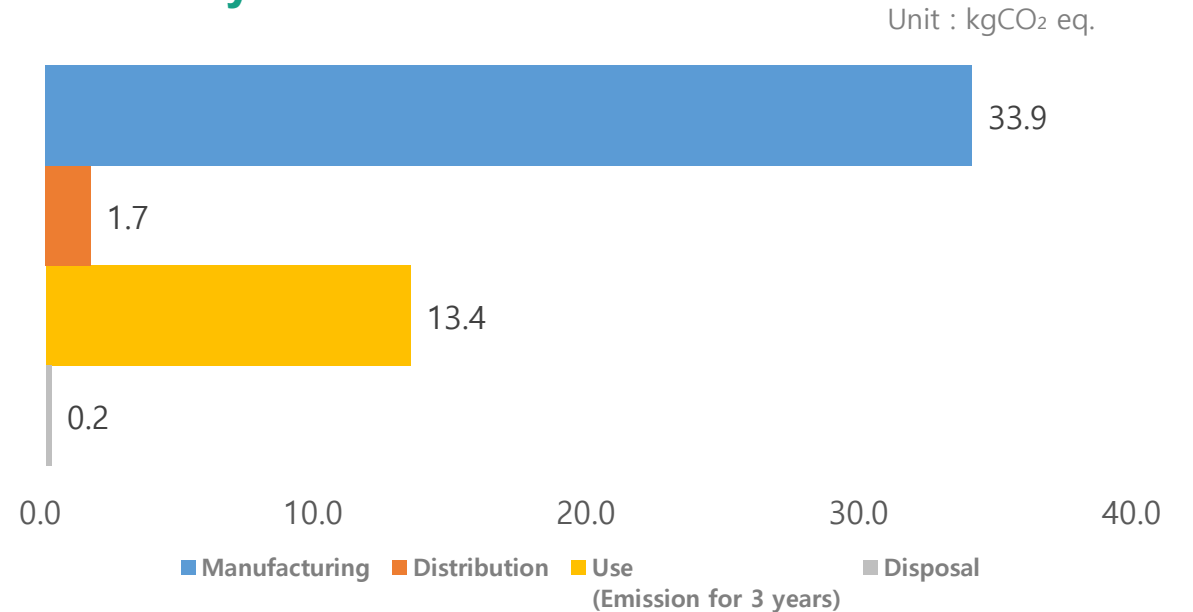
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A54 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

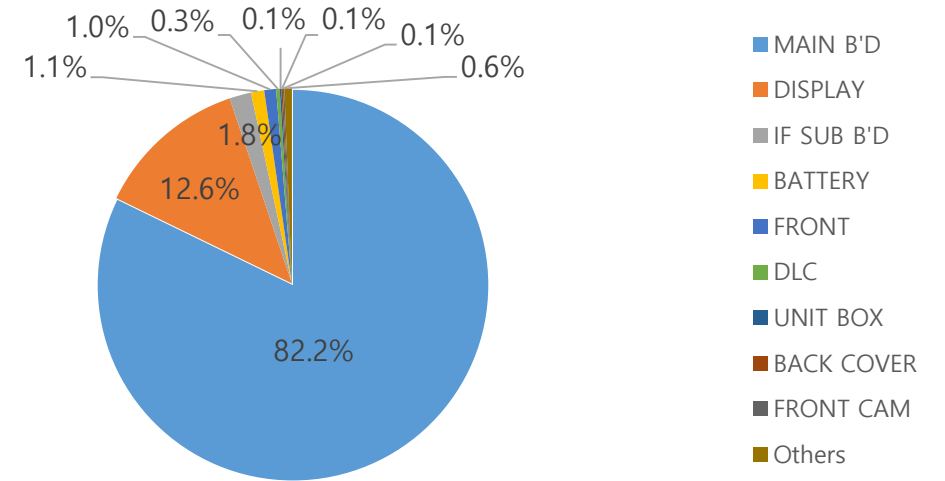
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

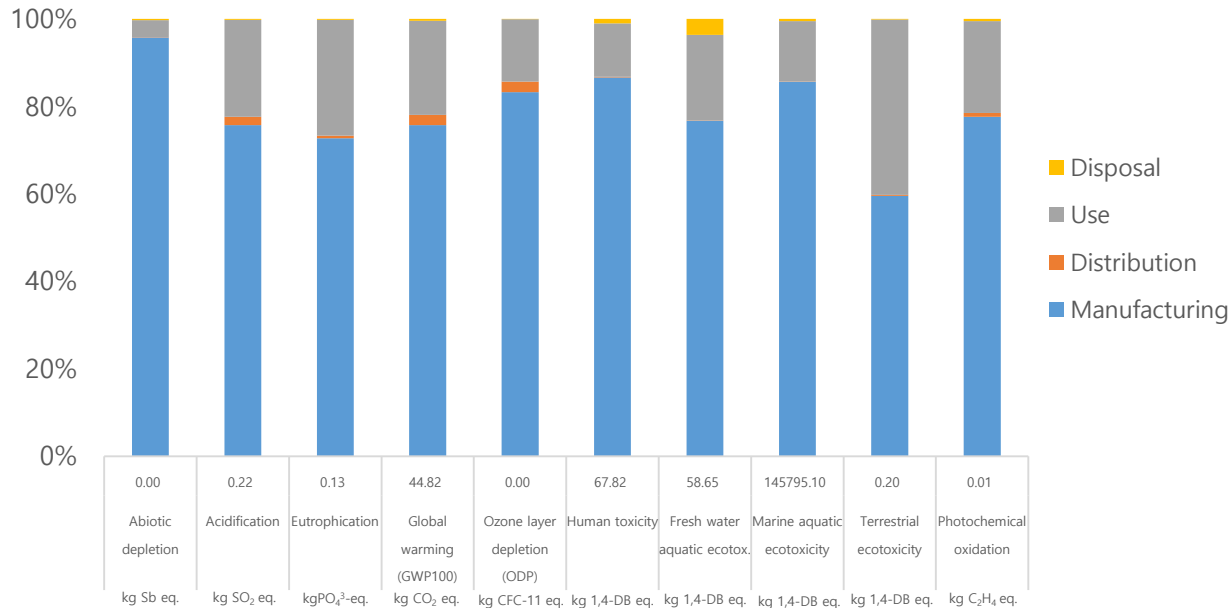


Model name	SM-A546B(Galaxy A54 5G)
Dimension	158.2 x 76.7 x 8.2 mm
Display	6.4" OLED
Weight	Product&Acc. : 223.42 g Packages : 108.72 g

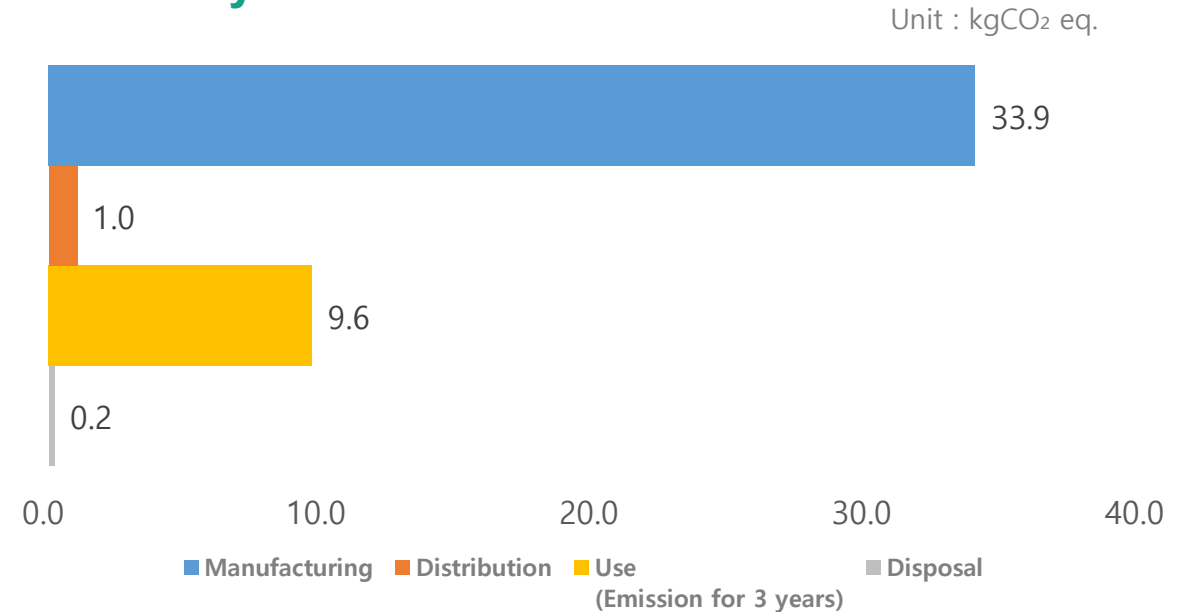
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A34 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

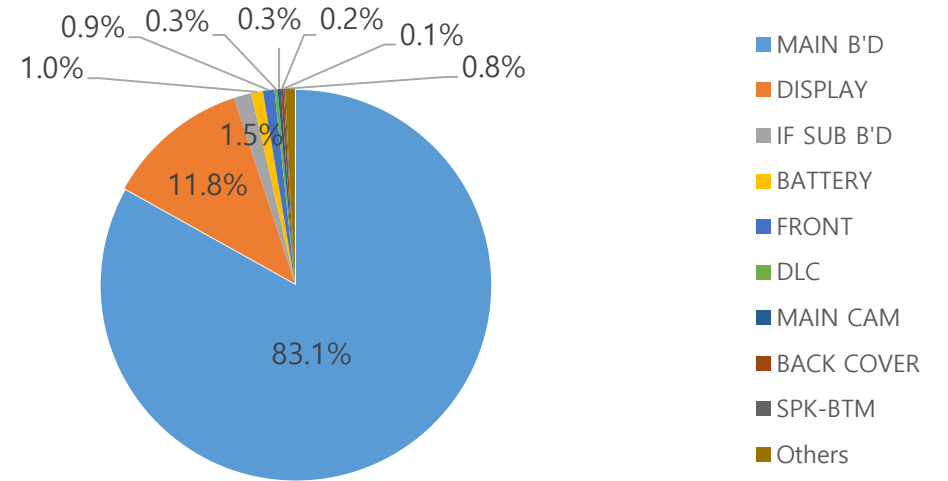
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

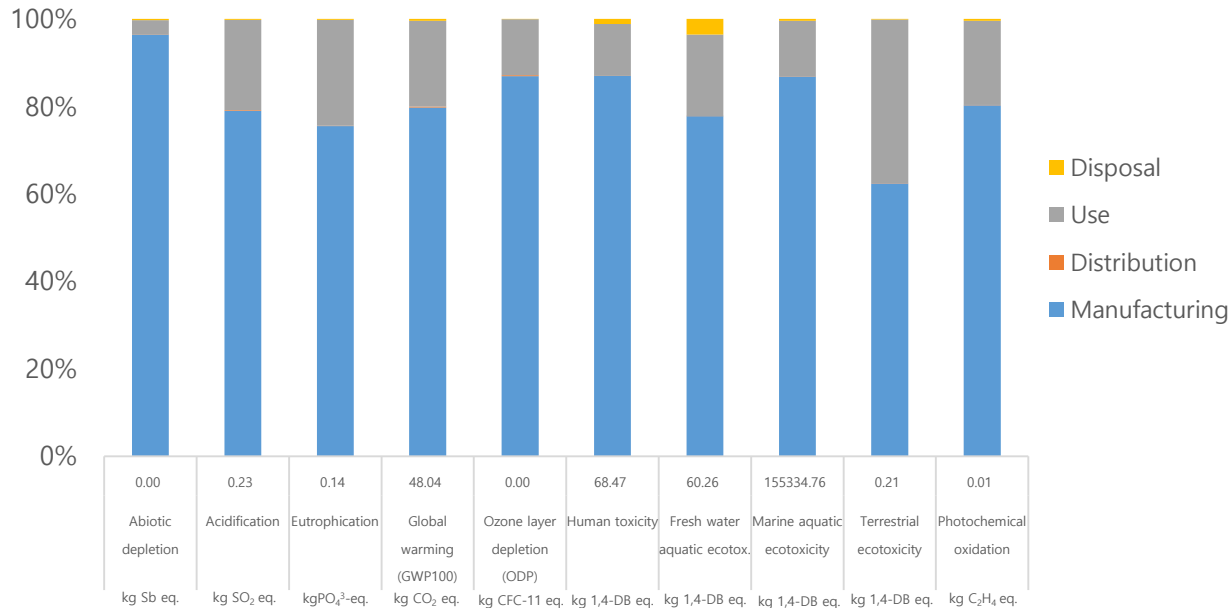


Model name	SM-A346B(Galaxy A34 5G)
Dimension	161.3 x 78.1 x 8.2 mm
Display	6.6" OLED
Weight	Product&Acc. : 220.42 g Packages : 106.95 g

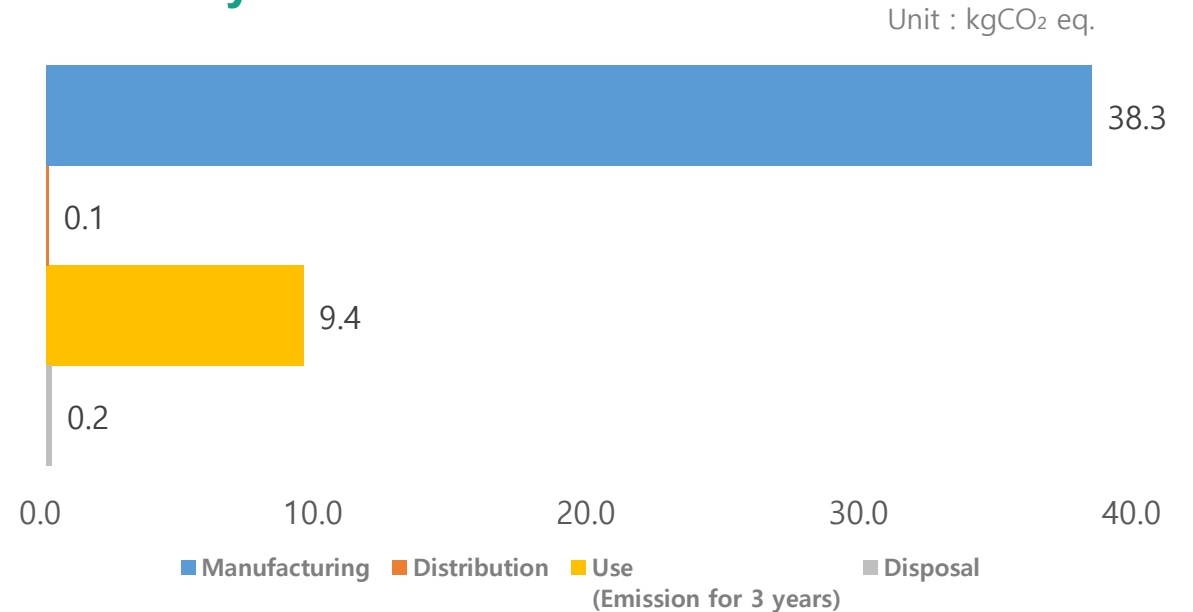
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A24

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.4.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML-IA baseline V3.06 / the Netherlands, 1997 as provided in the SimaPro 9.4.0.3 LCA tool
LCA software	SimaPro 9.4.0.3

● System boundary of LCA

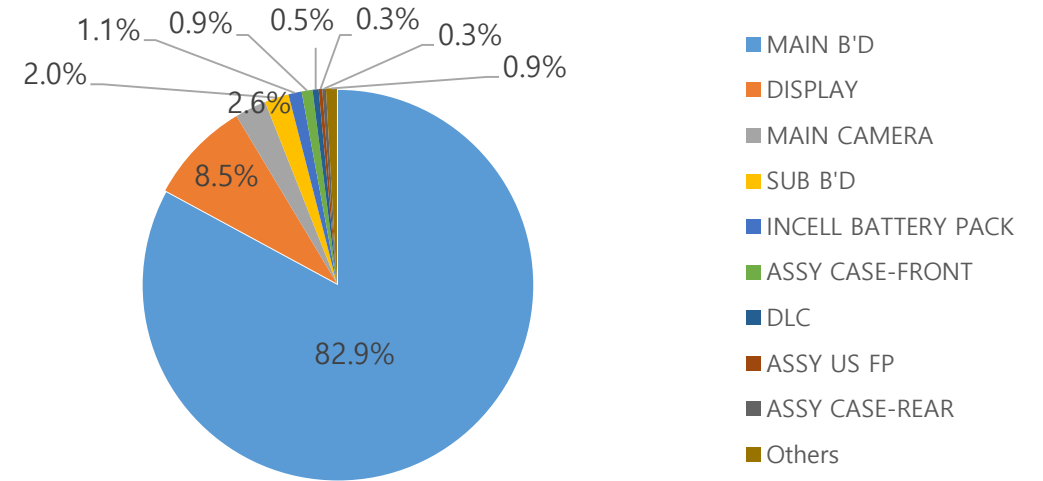
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to UAE
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

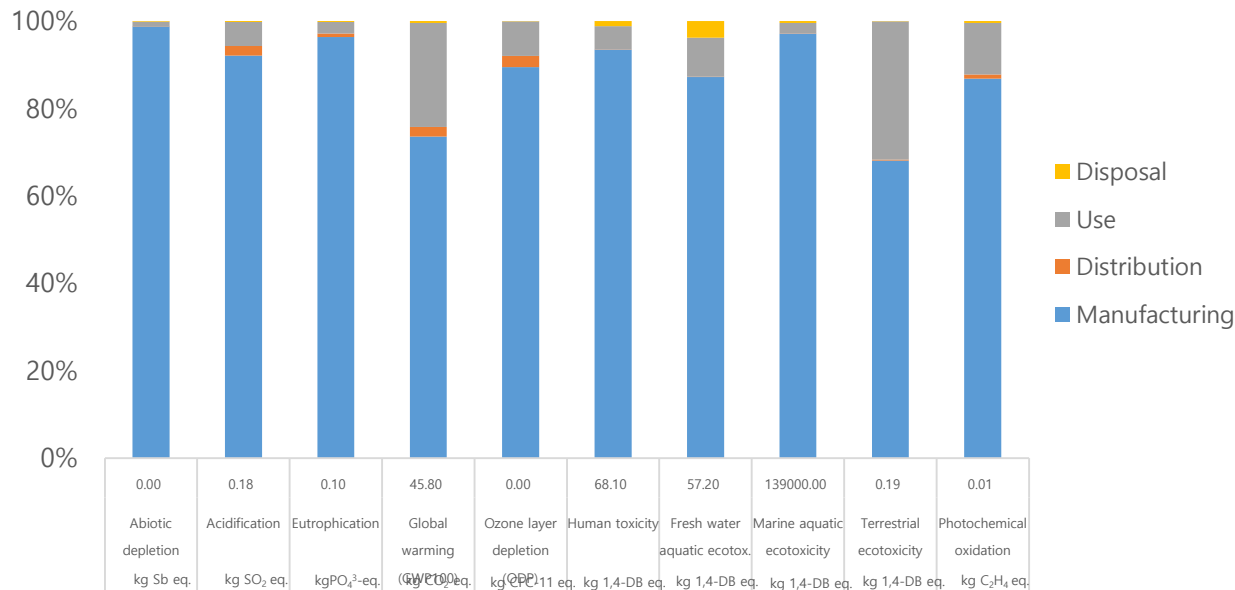


Model name	SM-A245F(Galaxy A24)
Dimension	162.1 x 77.6 x 8.3 mm
Display	6.5" OLED
Weight	Product&Acc. : 217.06 g Packages : 66.84 g

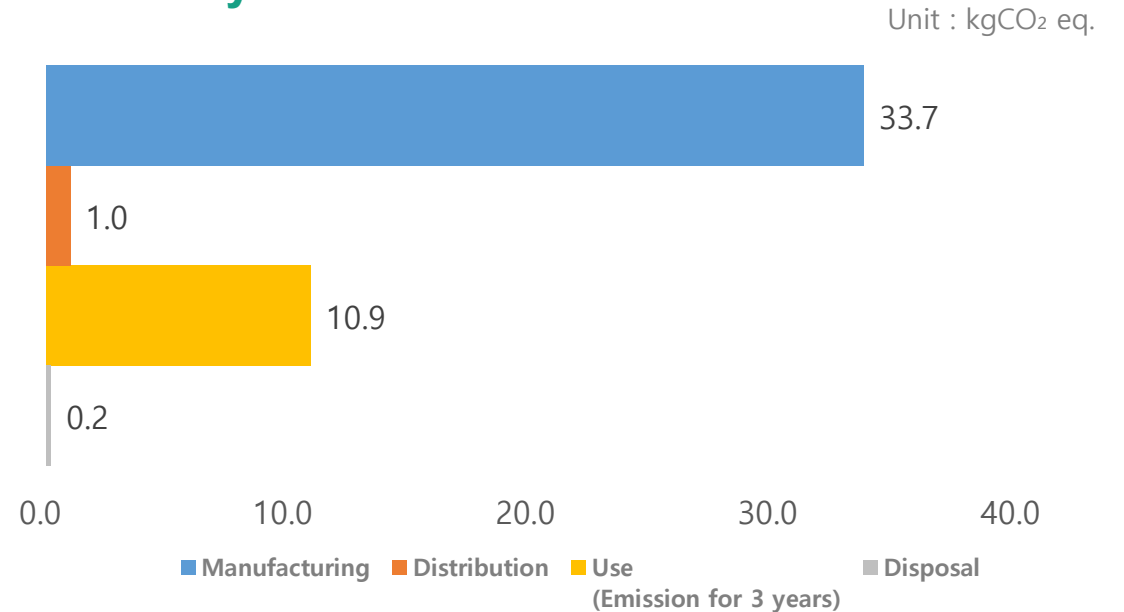
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A14

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

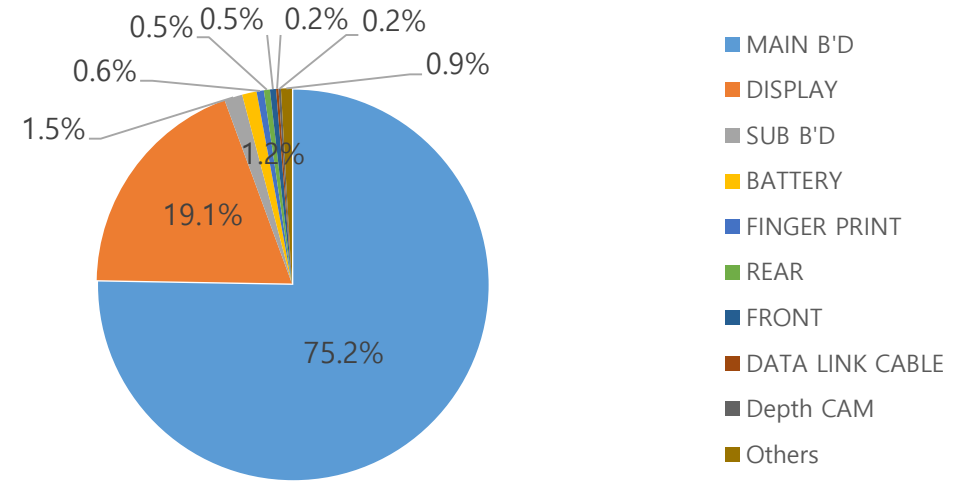
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

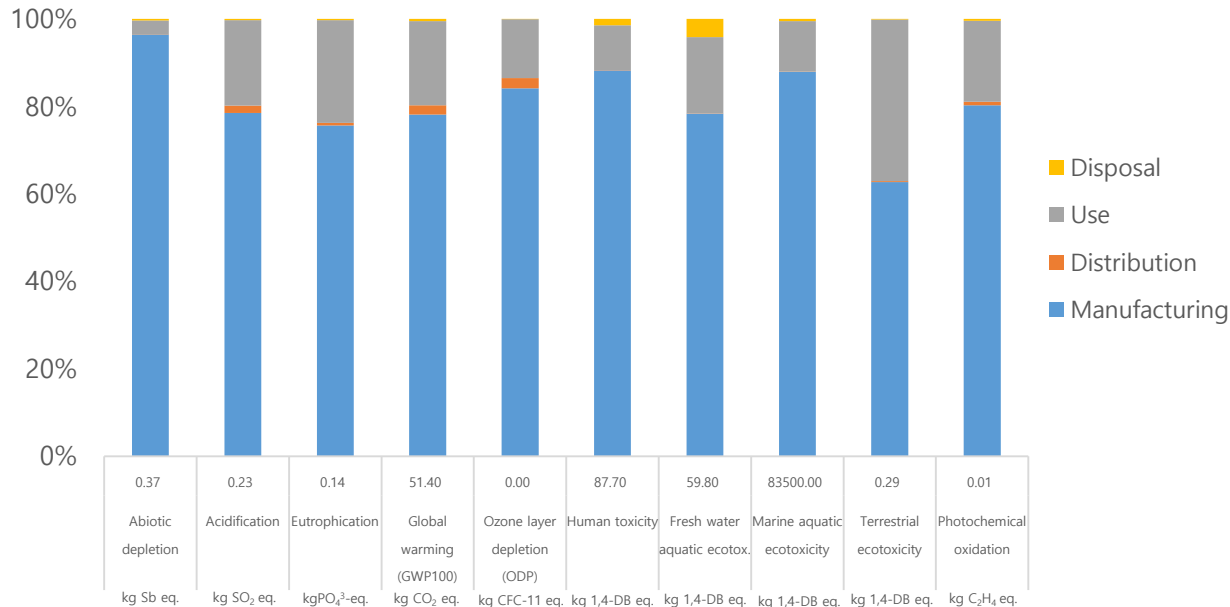


Model name	SM-A145F(Galaxy A14)
Dimension	167.7 x 78 x 9.1 mm
Display	6.6" FHD+
Weight	Product&Acc. : 221.87 g Packages : 66.23 g

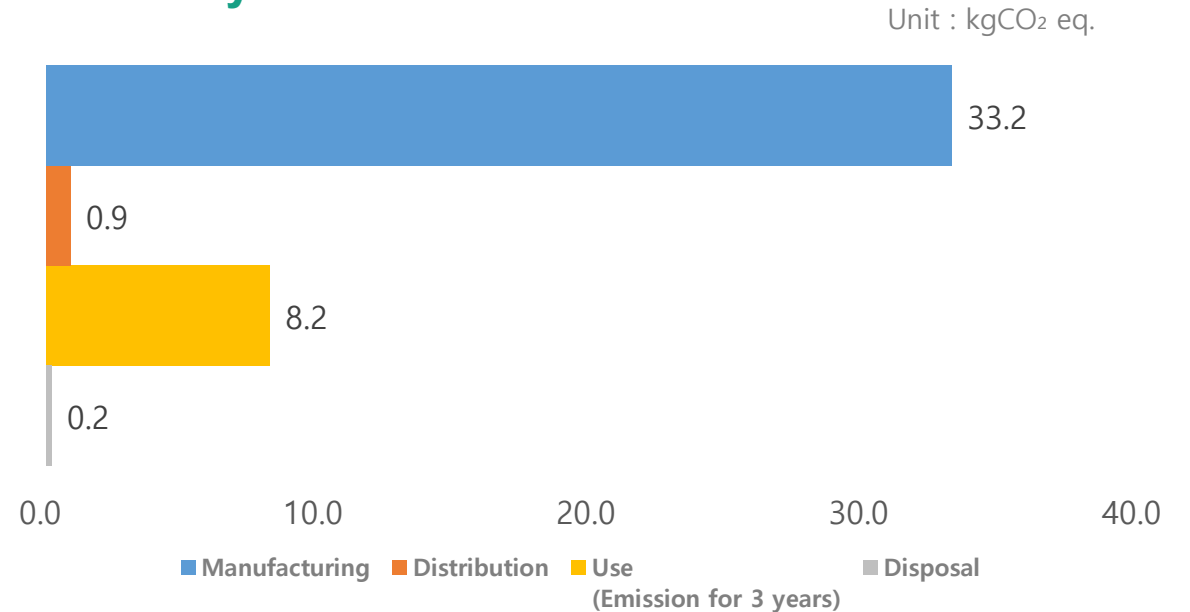
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A23 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

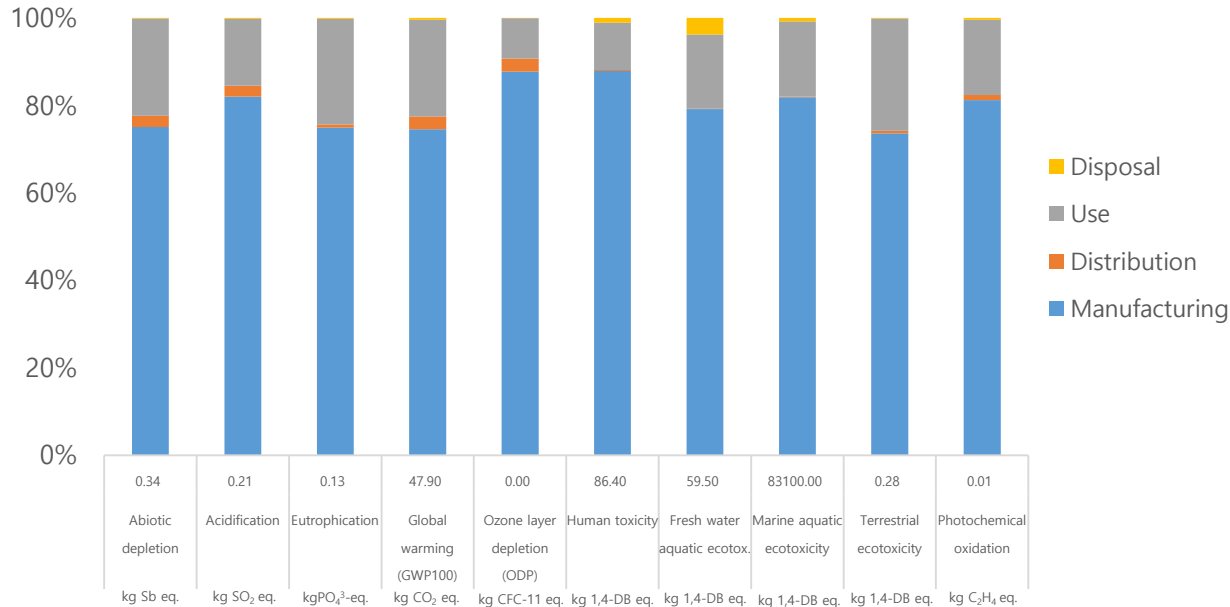
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

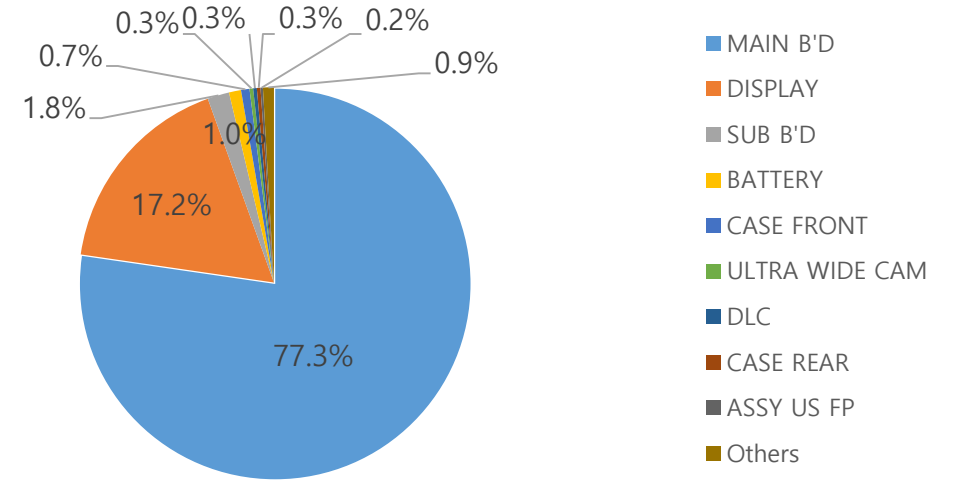


Model name	SM-A236V(Galaxy A23 5G)
Dimension	165.4 x 76.9 x 8.4 mm
Display	6.6" LCD
Weight	Product&Acc. : 216.19 g Packages : 55.69 g

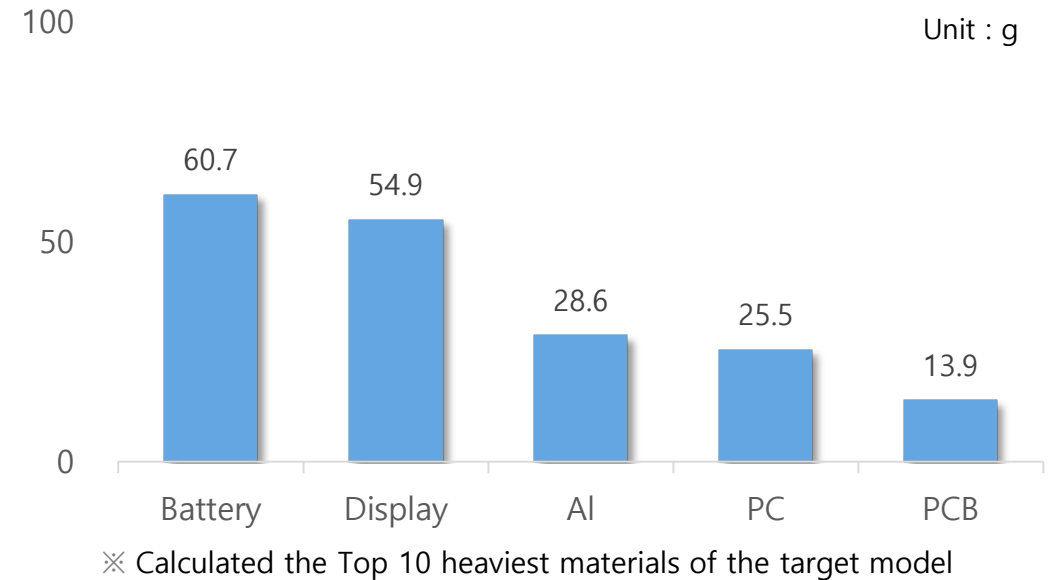
● Characterized Environment Impact



● Global Warming Impact Profile



● Top 5 Substances of Target model



Life Cycle Assessment for Galaxy S23 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

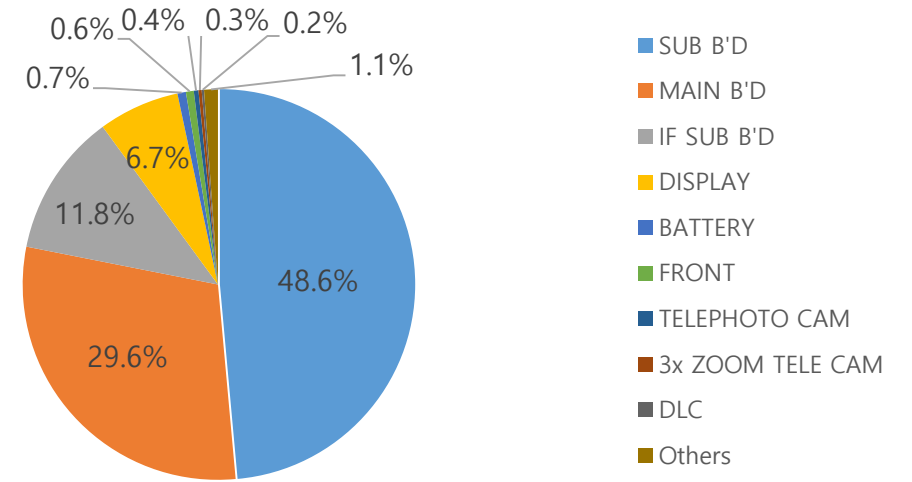
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

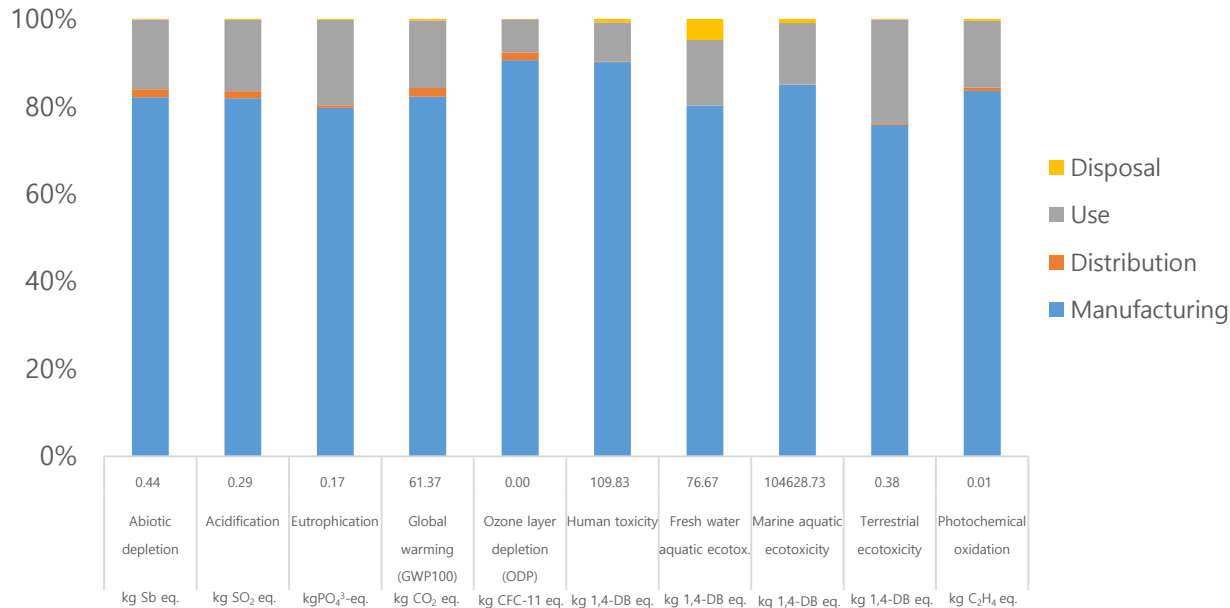


Model name	SM-S918B(Galaxy S23 Ultra)
Dimension	163.4 x 78.1 x 8.9 mm
Display	6.8" OLED
Weight	Product&Acc. : 253.99 g Packages : 128.15 g

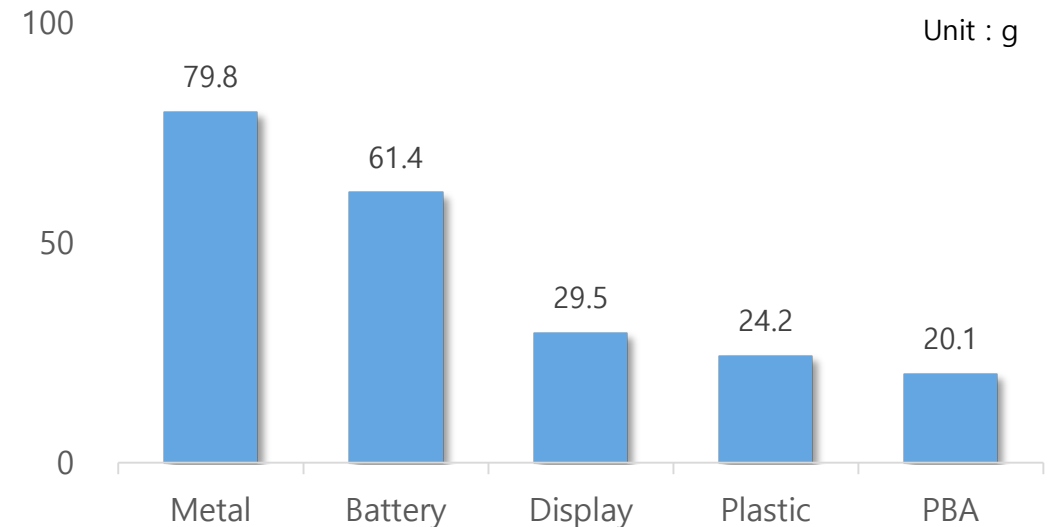
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S23 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

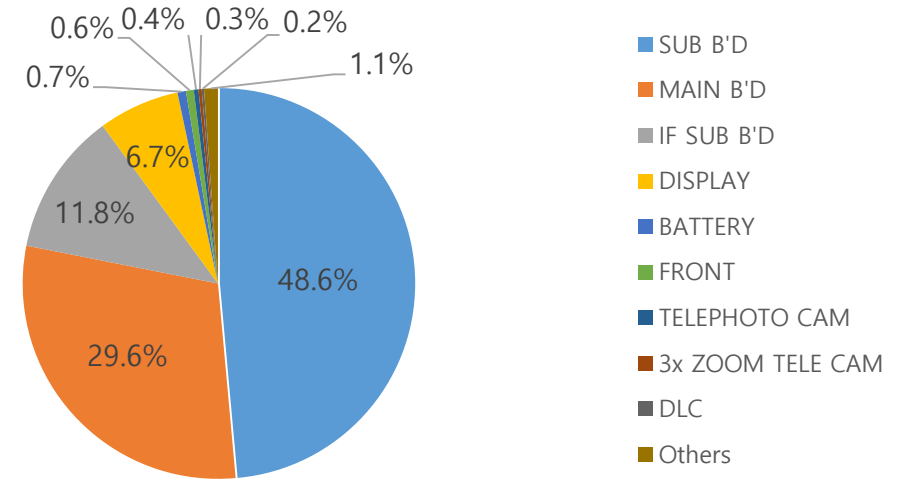
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

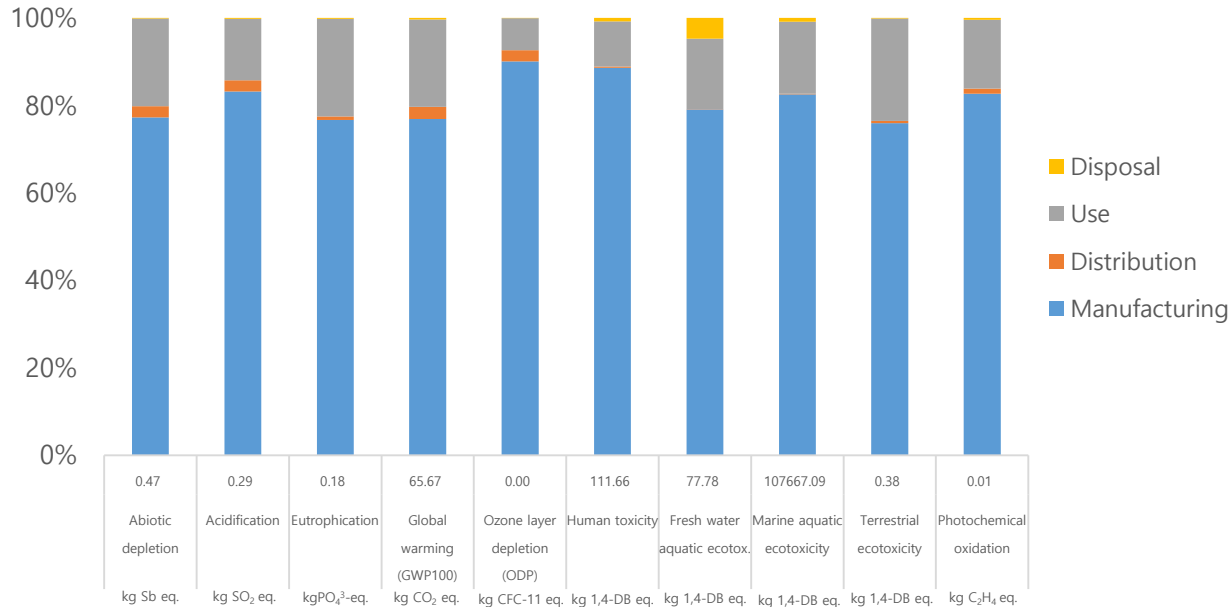


Model name	SM-S918U(Galaxy S23 Ultra)
Dimension	163.4 x 78.1 x 8.9 mm
Display	6.8" OLED
Weight	Product&Acc. : 253.99 g Packages : 128.15 g

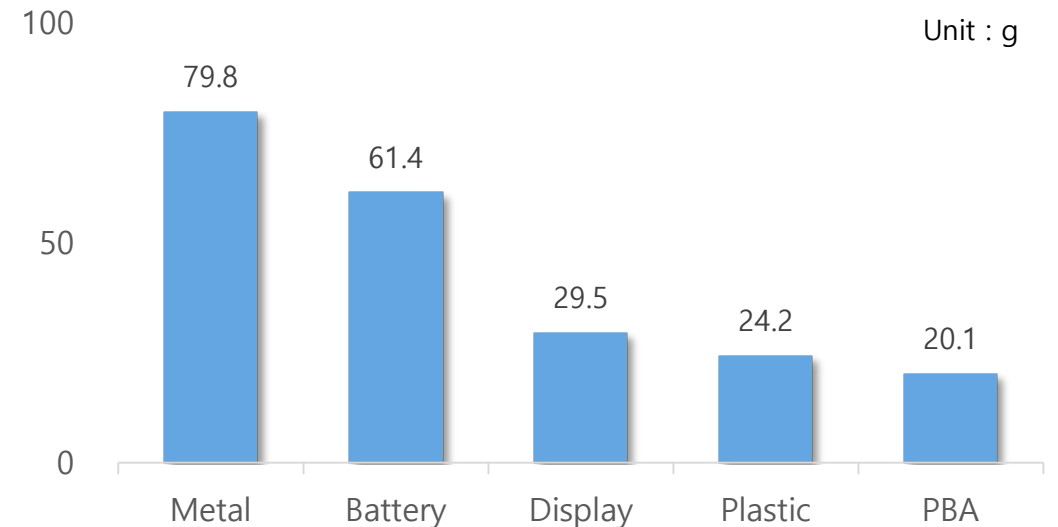
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S23+

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

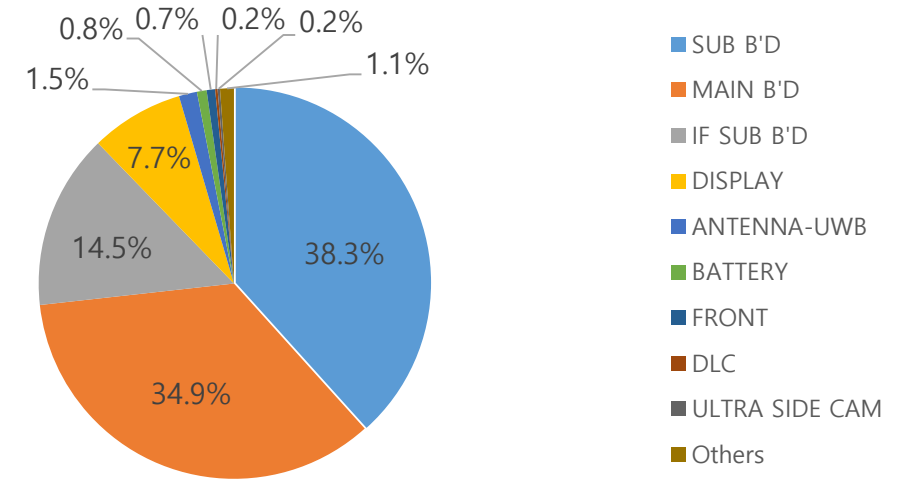
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

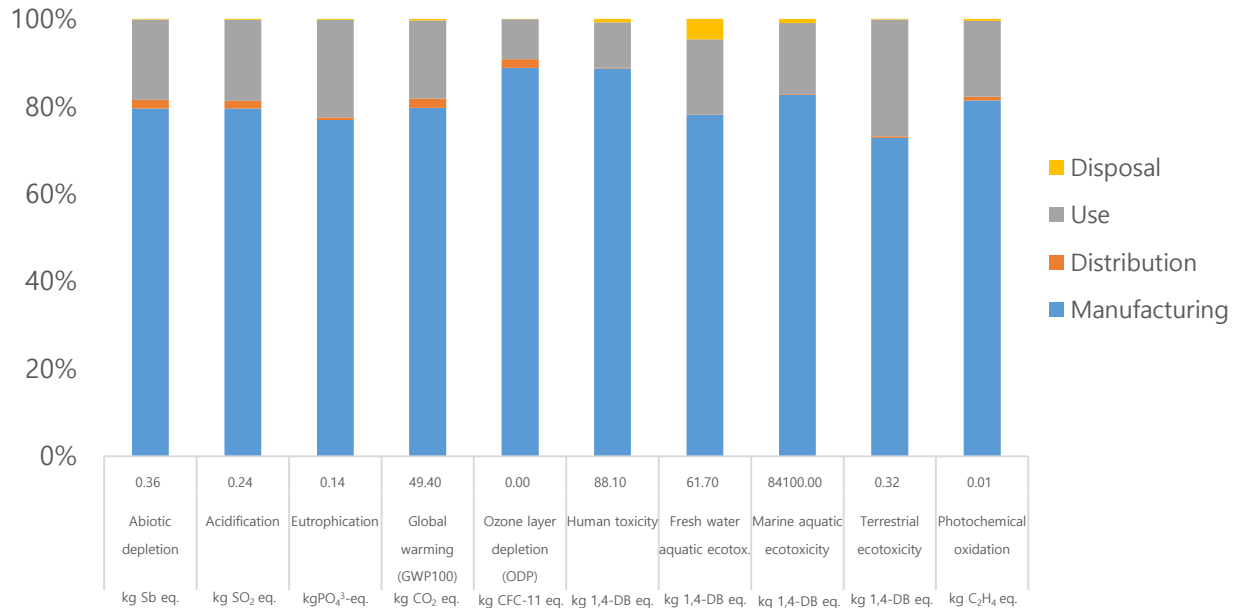


Model name	SM-S916B(Galaxy S23+)
Dimension	157.8 x 76.2 x 7.6 mm
Display	6.6" OLED
Weight	Product&Acc. : 206.16 g Packages : 123.99 g

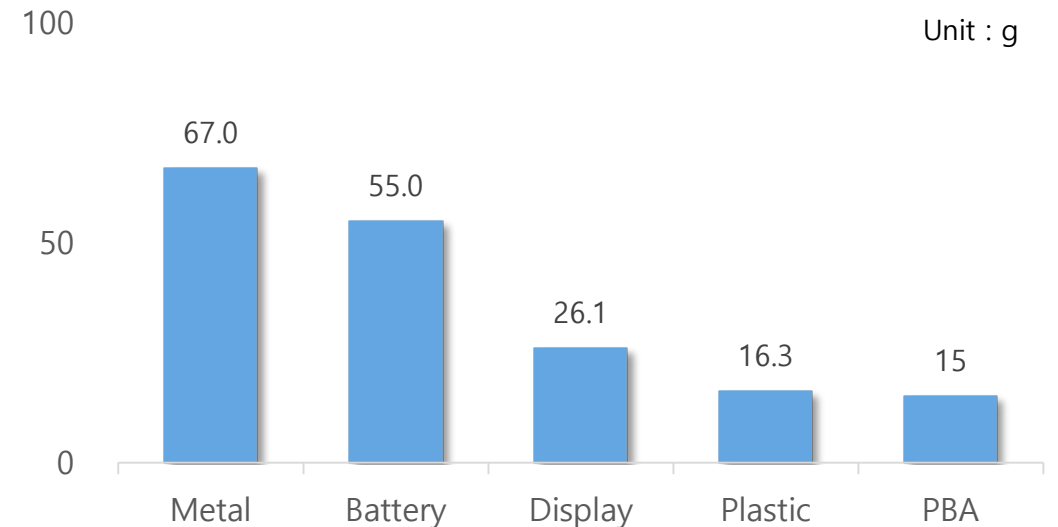
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S23+

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

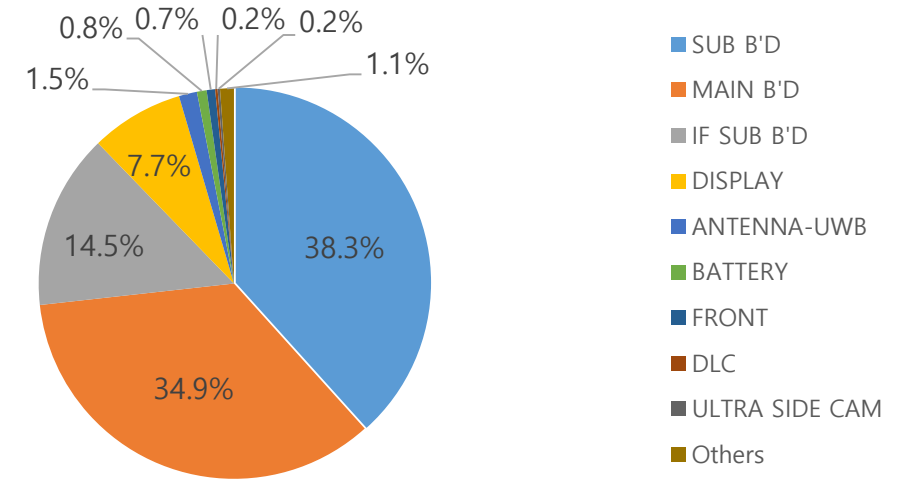
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

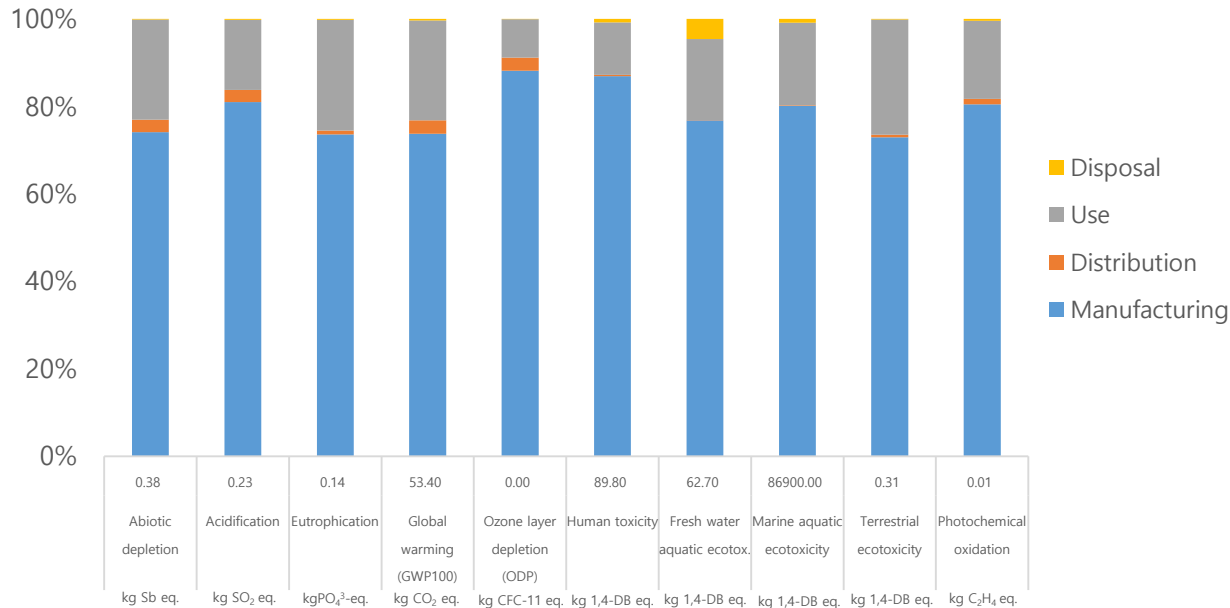


Model name	SM-S916U(Galaxy S23+)
Dimension	157.8 x 76.2 x 7.6 mm
Display	6.6" OLED
Weight	Product&Acc. : 206.16 g Packages : 123.99 g

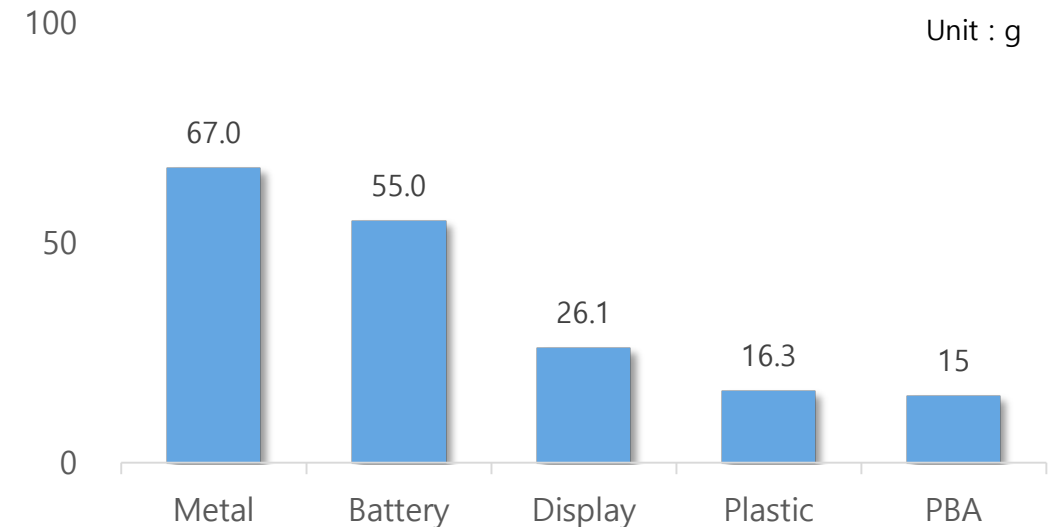
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S23

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

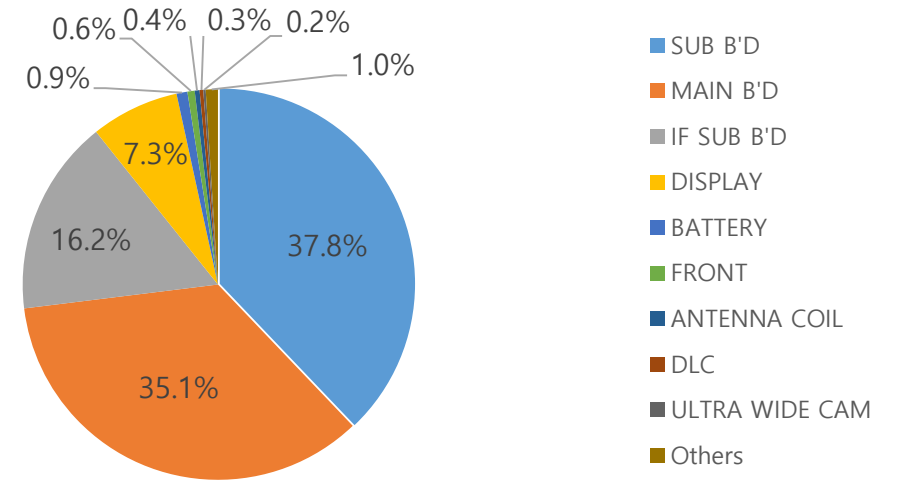
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

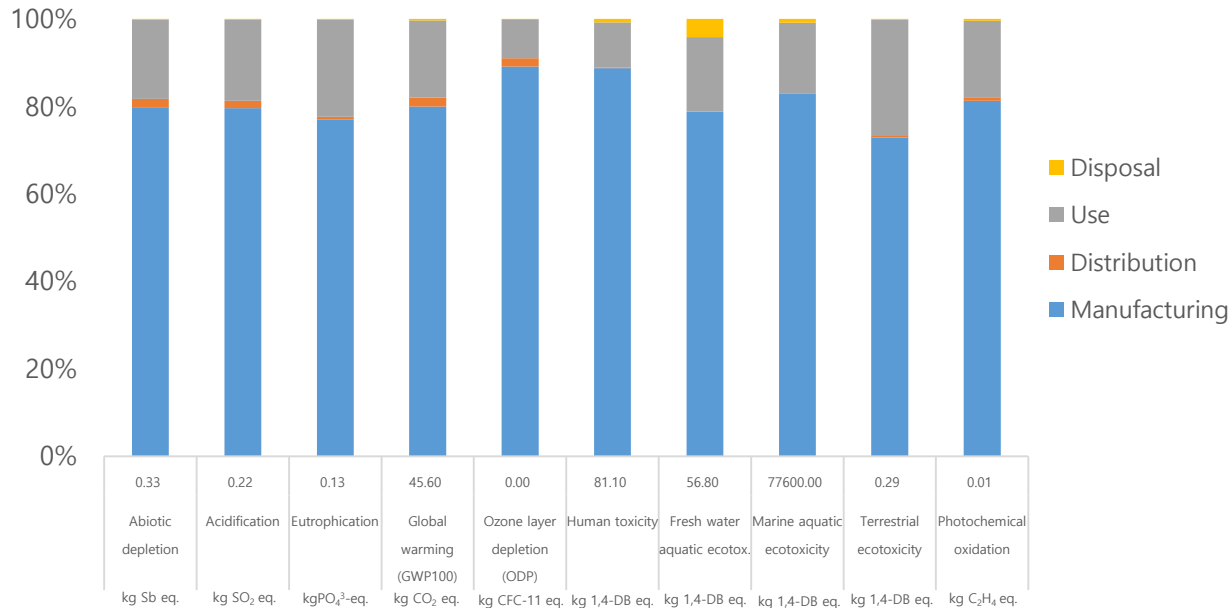


Model name	SM-S911B(Galaxy S23)
Dimension	146.3 x 70.9 x 7.6 mm
Display	6.1" OLED
Weight	Product&Acc. : 184.78 g Packages : 112.46 g

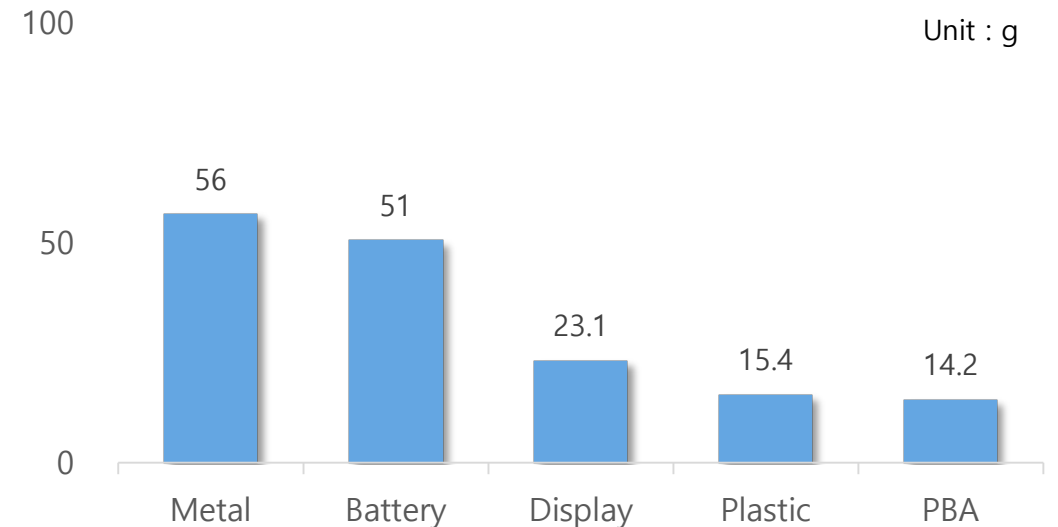
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S23

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

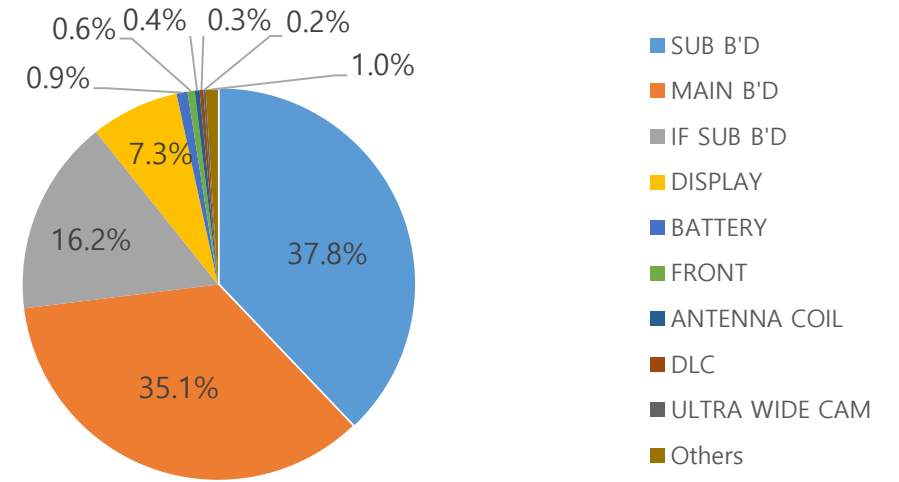
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Vietnam and KOR to US
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

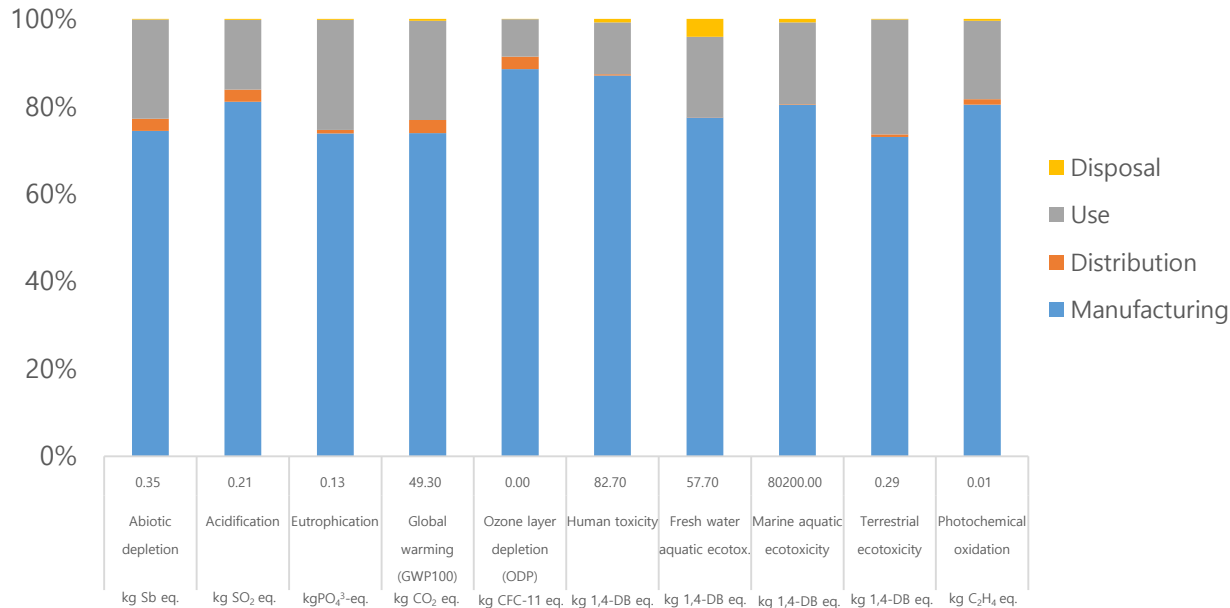


Model name	SM-S911U(Galaxy S23)
Dimension	146.3 x 70.9 x 7.6 mm
Display	6.1" OLED
Weight	Product&Acc. : 184.78 g Packages : 112.46 g

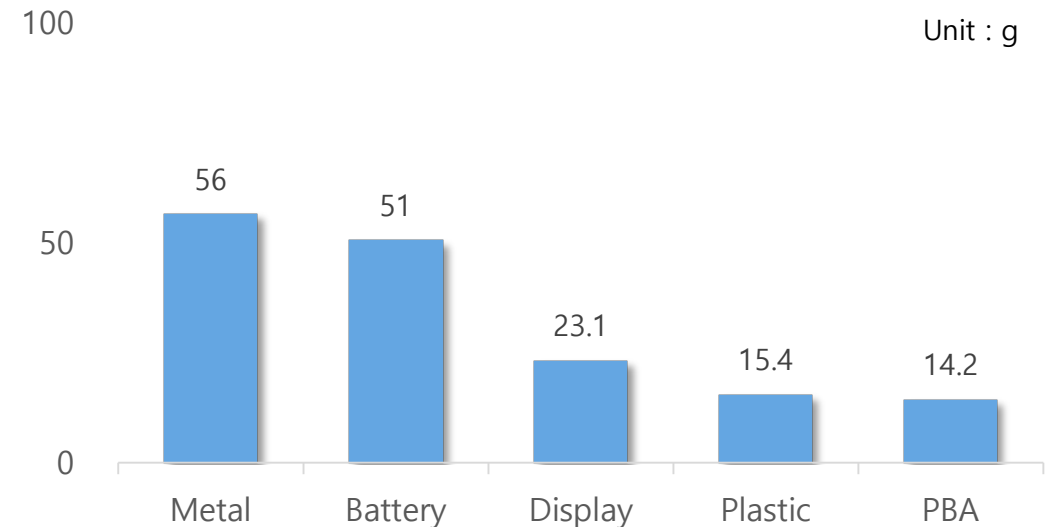
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy Z Fold4

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

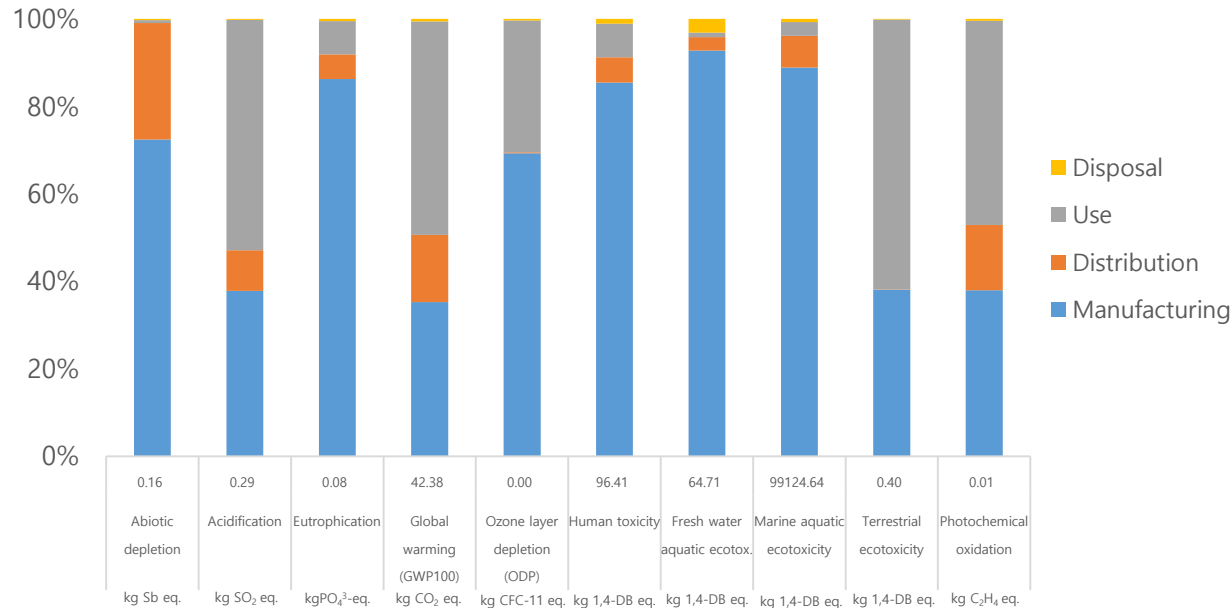
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

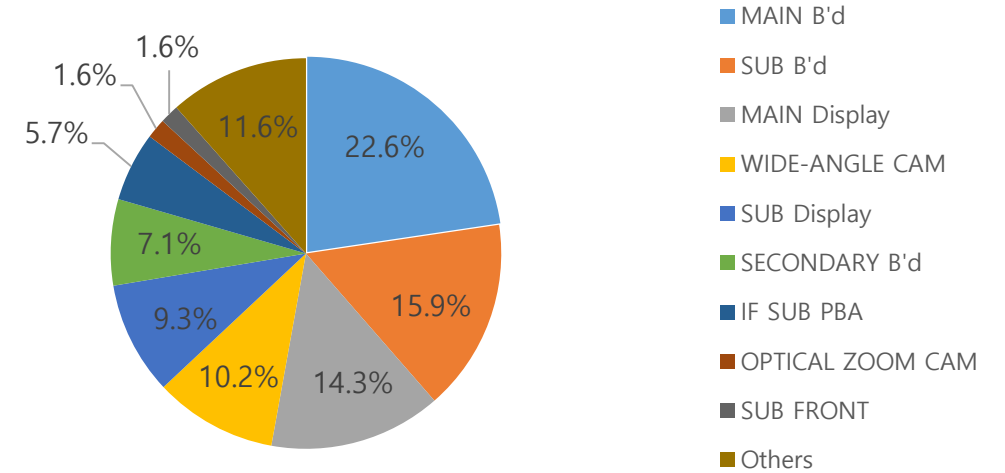


Model name	SM-F936U(Galaxy Z Fold4)
Dimension	155.1 x 130.1 x 6.3 mm
Display (Main / Sub)	OLED 7.6" / 6.2"
Weight	Product&Acc. : 284.72 g Packages : 189.03 g

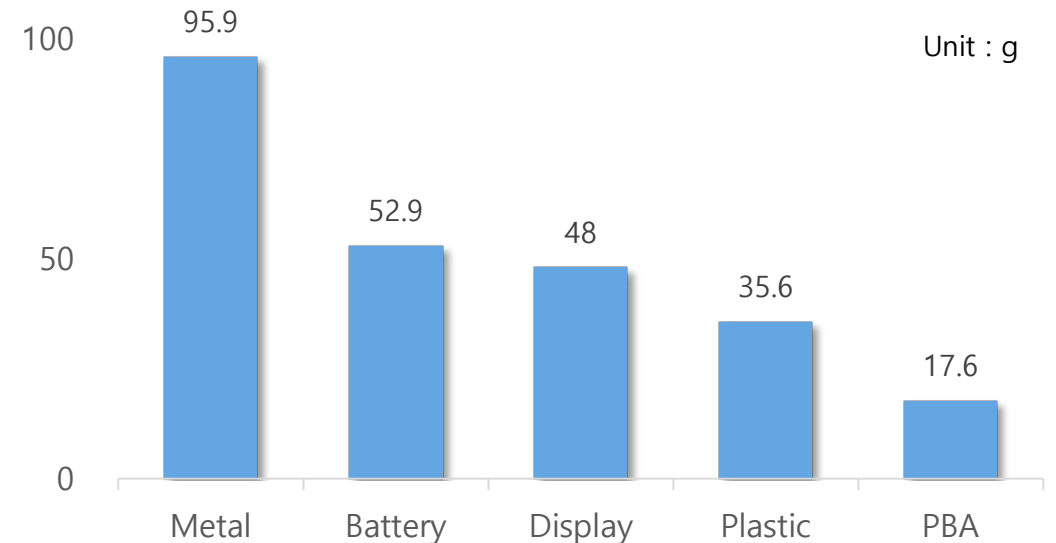
● Characterized Environment Impact



● Global Warming Impact Profile



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy Z Flip4

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

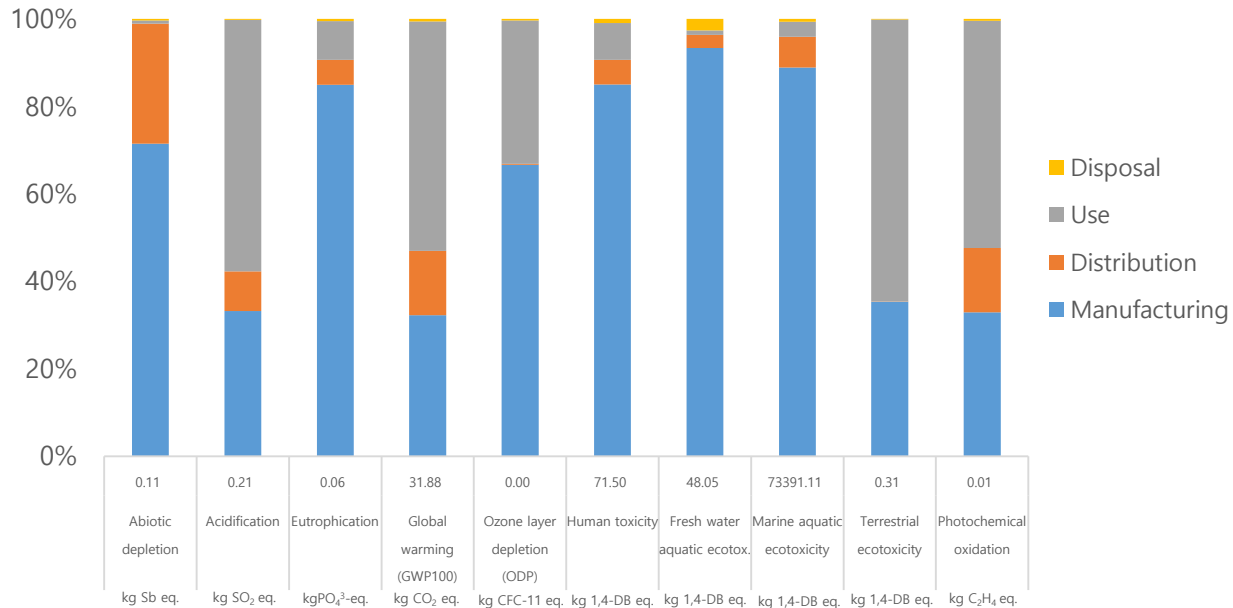
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

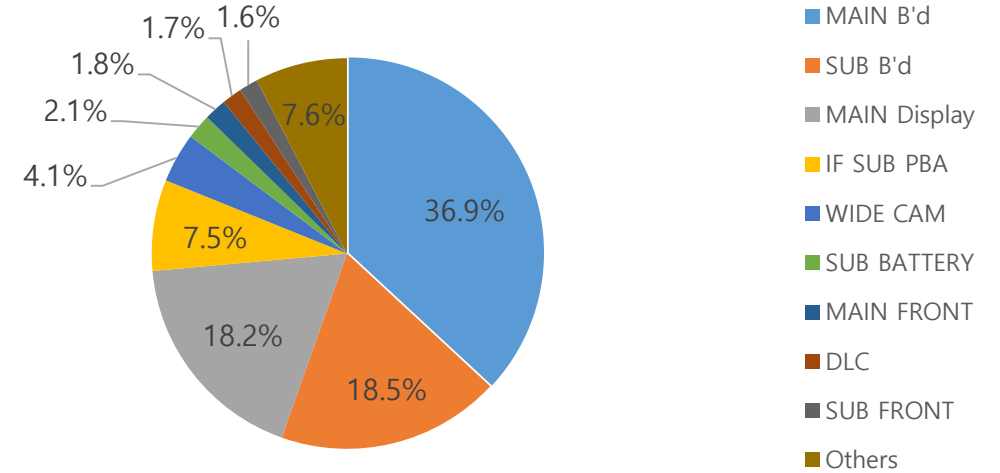


Model name	SM-F721U(Galaxy Z Flip4)
Dimension	165.2 x 71.9 x 6.9 mm
Display (Main / Sub)	OLED 6.7" / 1.9"
Weight	Product&Acc. : 208.72 g Packages : 132.34 g

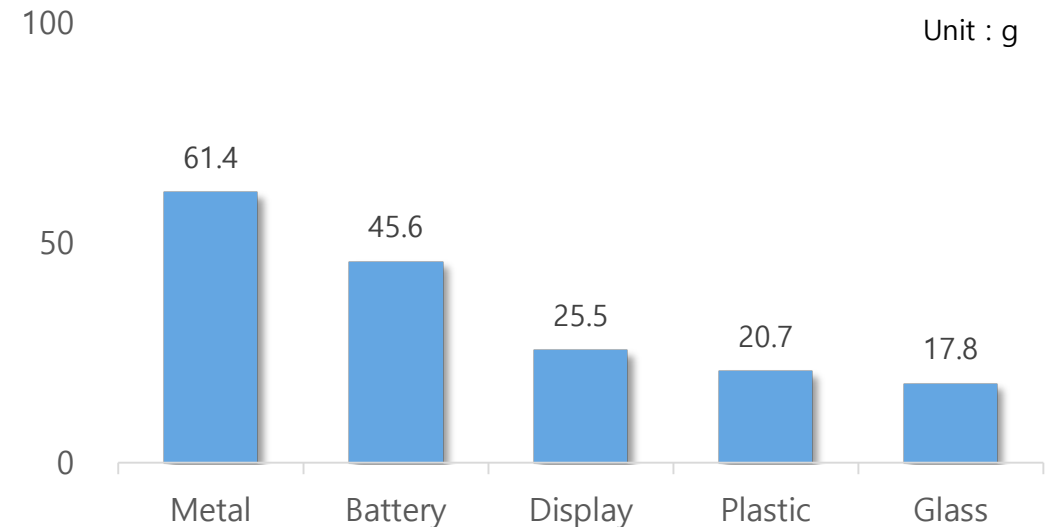
● Characterized Environment Impact



● Global Warming Impact Profile



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy XCover6 Pro

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

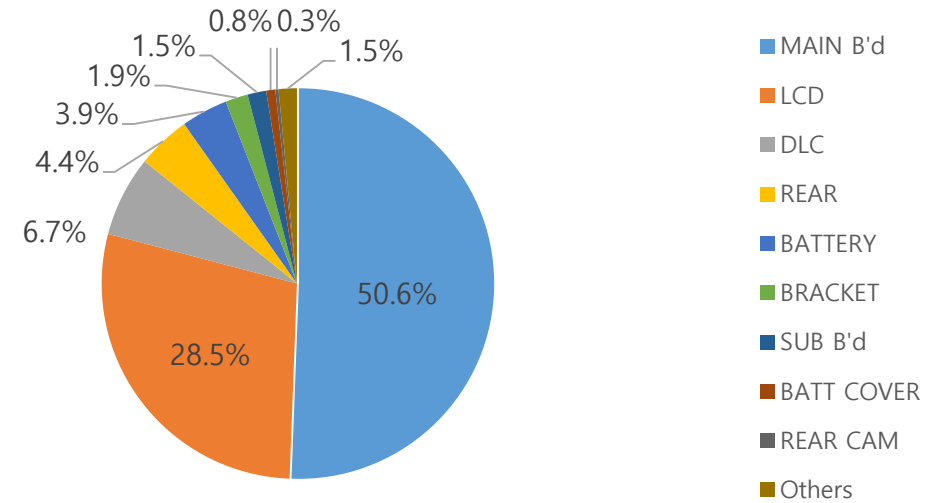
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

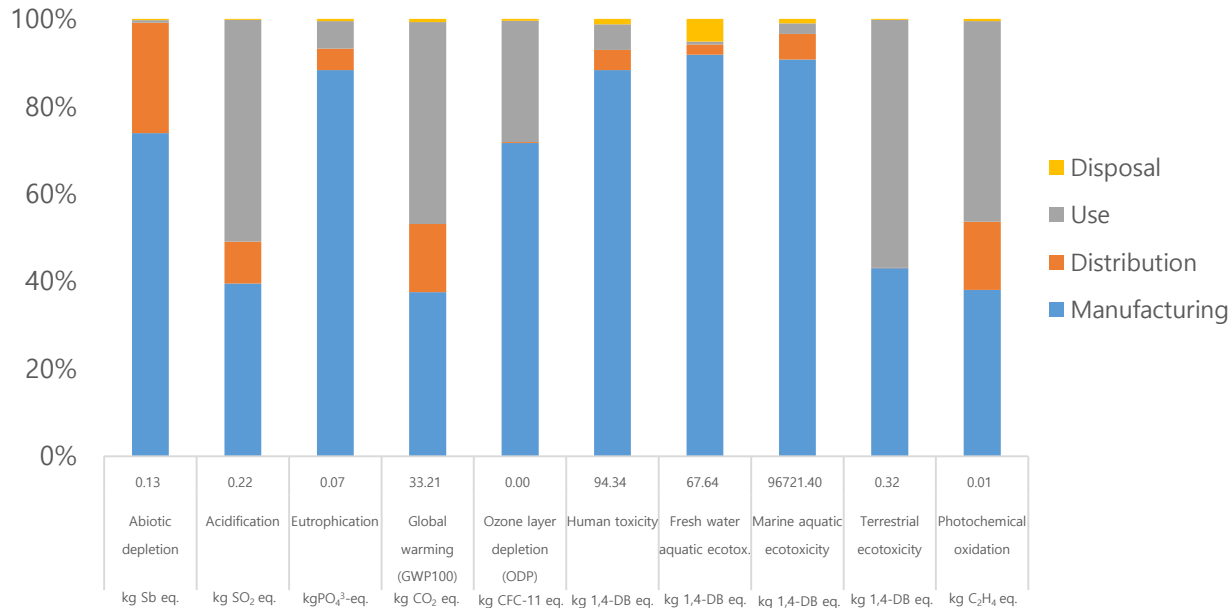


Model name	SM-G736U (Galaxy XCover6 Pro)
Dimension	168.8 x 79.9 x 9.9 mm
Display	6.6" LCD
Weight	Product&Acc. : 260.11 g Packages : 115.50 g

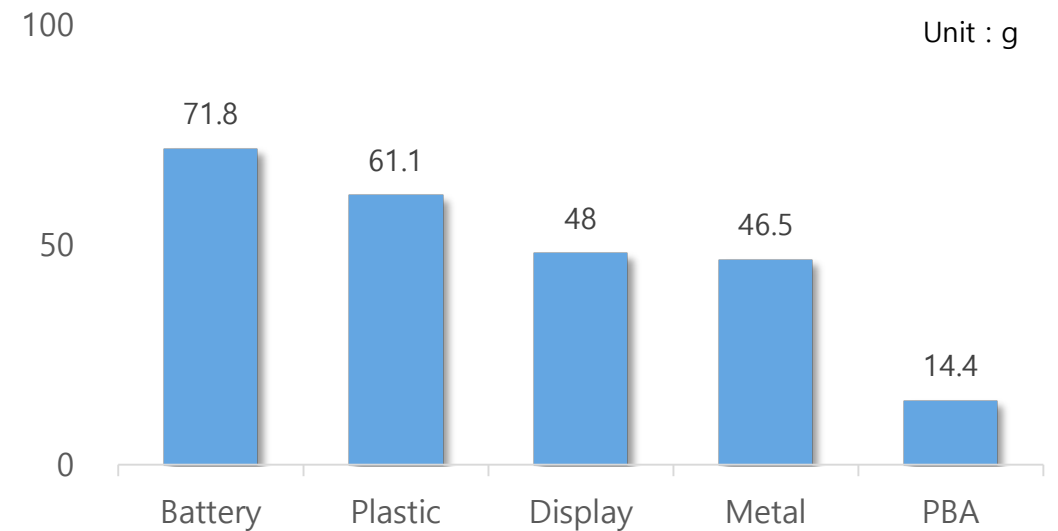
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy M13

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

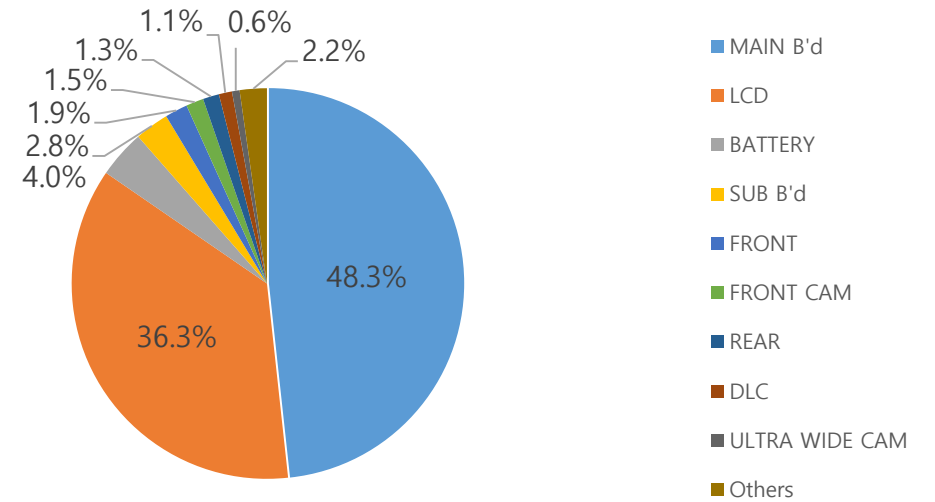
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

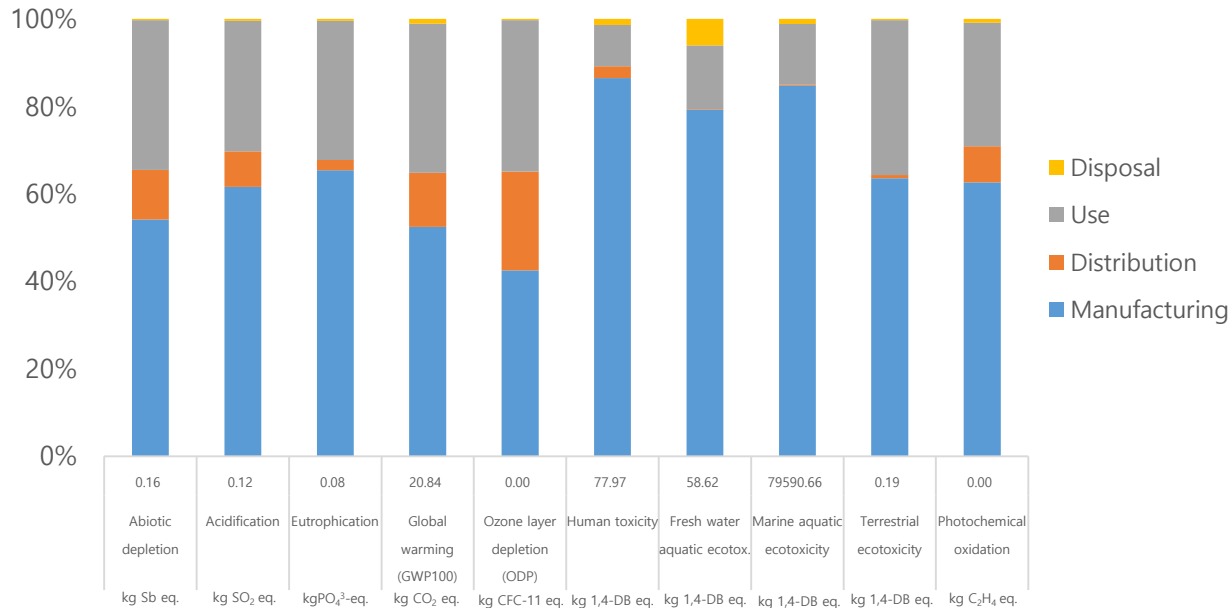


Model name	SM-M135F(Galaxy M13)
Dimension	165.4 x 76.9 x 8.4 mm
Display	6.6" LCD
Weight	Product&Acc. : 212.35 g Packages : 78.94 g

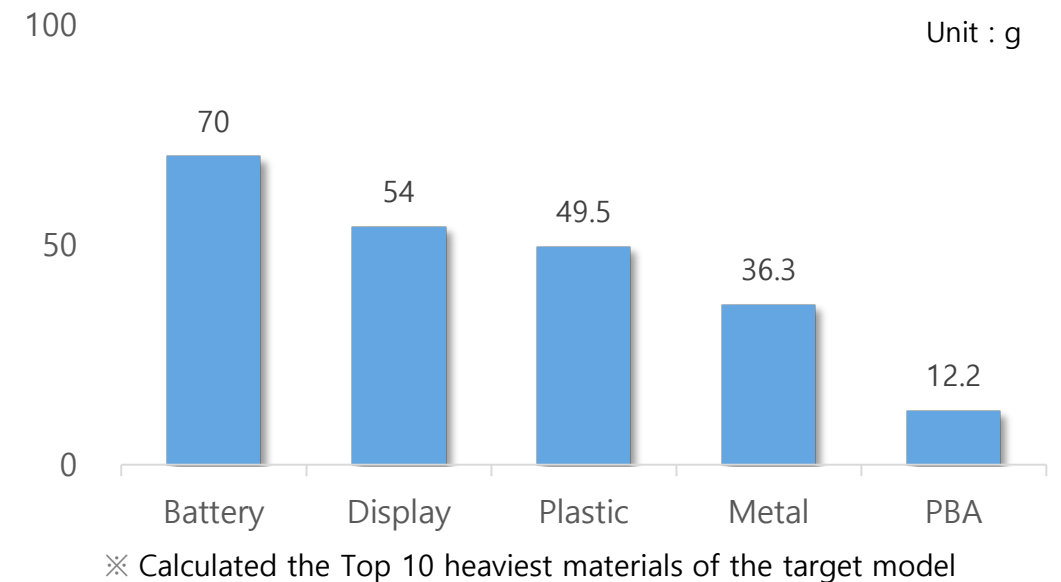
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



Life Cycle Assessment for Galaxy A73 5G

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

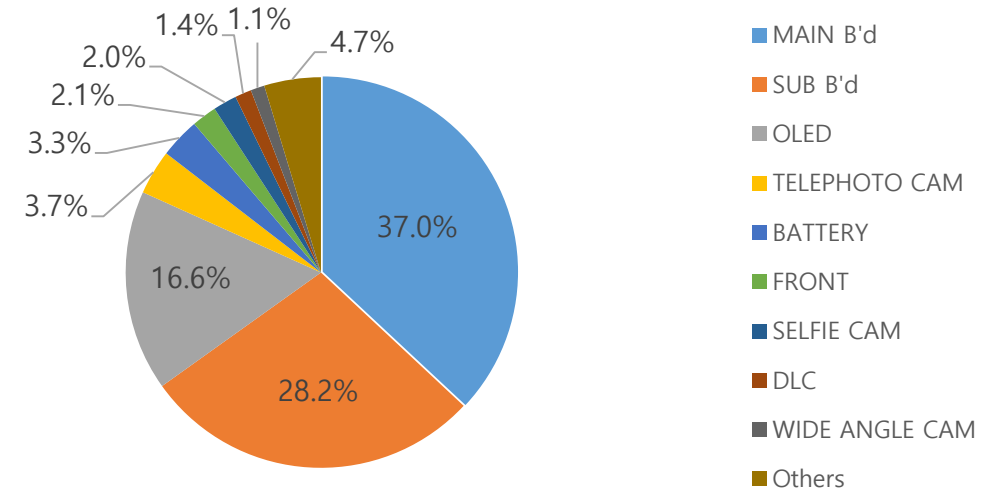
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

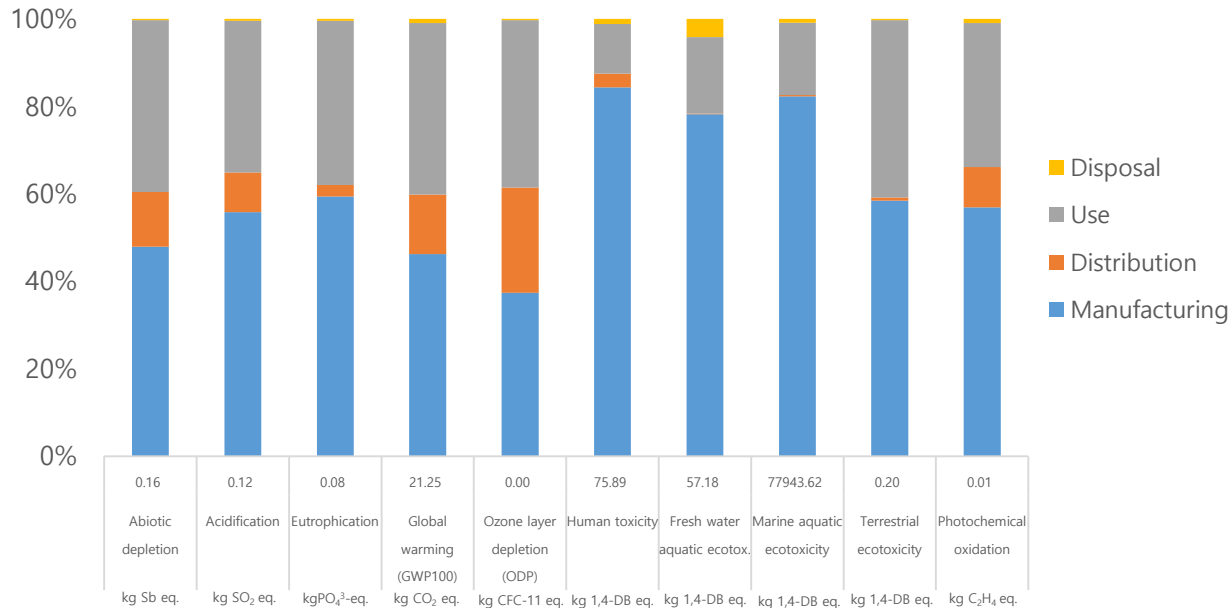


Model name	SM-A736B(Galaxy A73 5G)
Dimension	163.7 * 76.1 * 7.6 mm
Display	6.7" LCD
Weight	Product&Acc. : 205.15 g Packages : 121.67 g

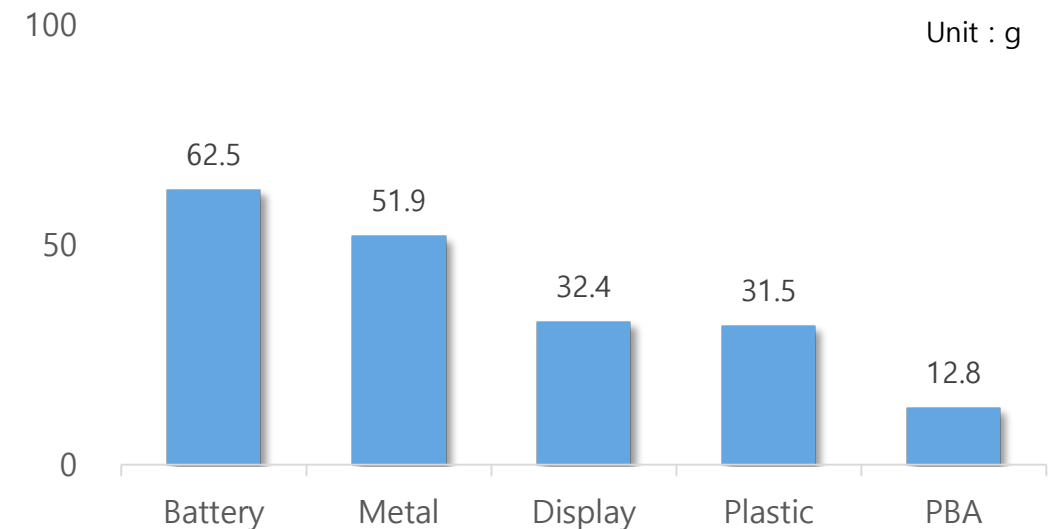
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy A23

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

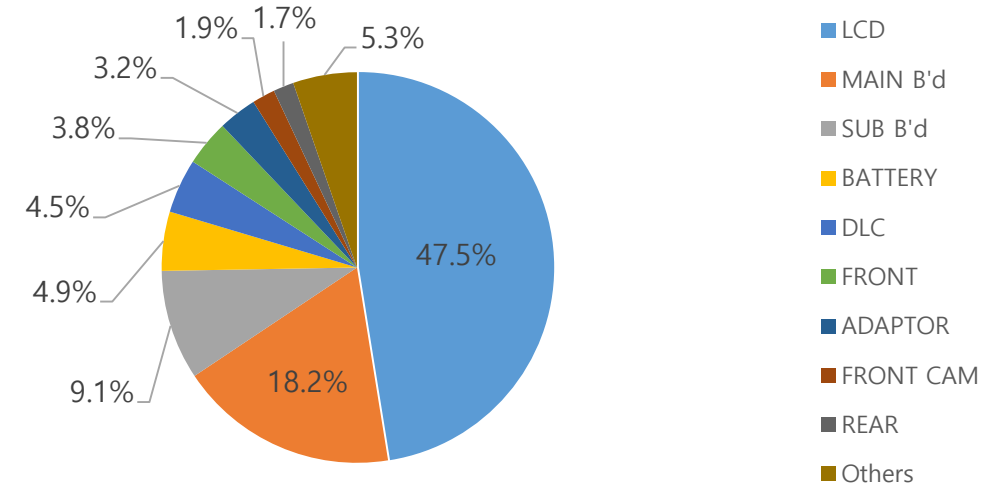
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

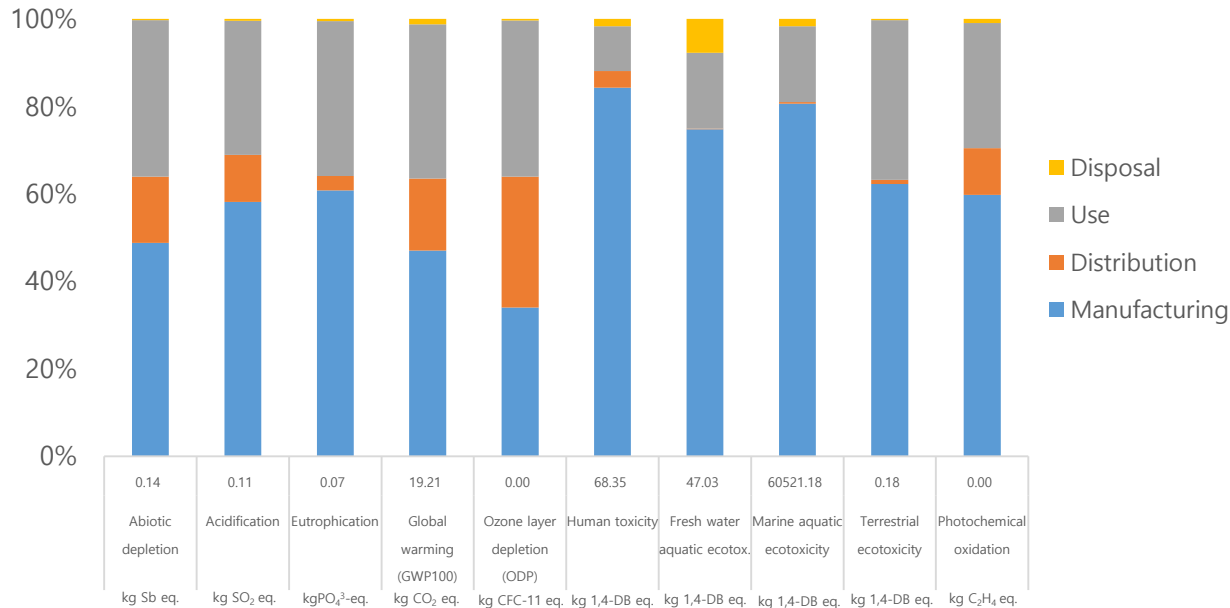


Model name	SM-A235F (Galaxy A23)
Dimension	165.4 * 76.9 * 8.4 mm
Display	6.6" LCD
Weight	Product&Acc. : 205.29 g Packages : 102.65 g

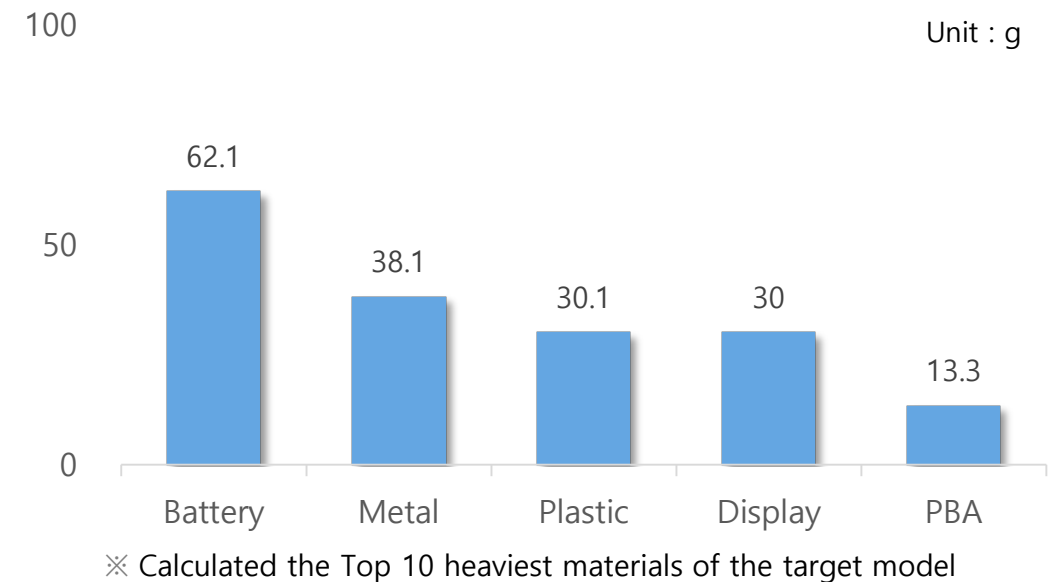
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



Life Cycle Assessment for Galaxy M53

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

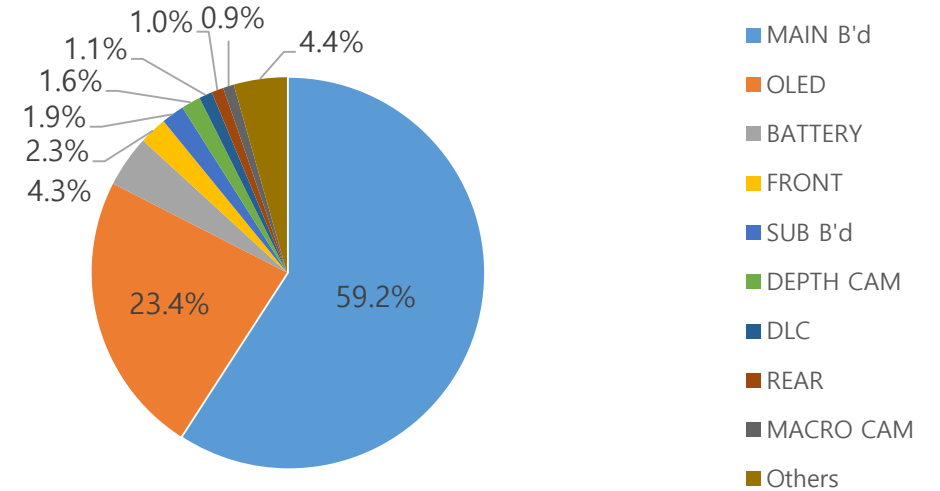
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

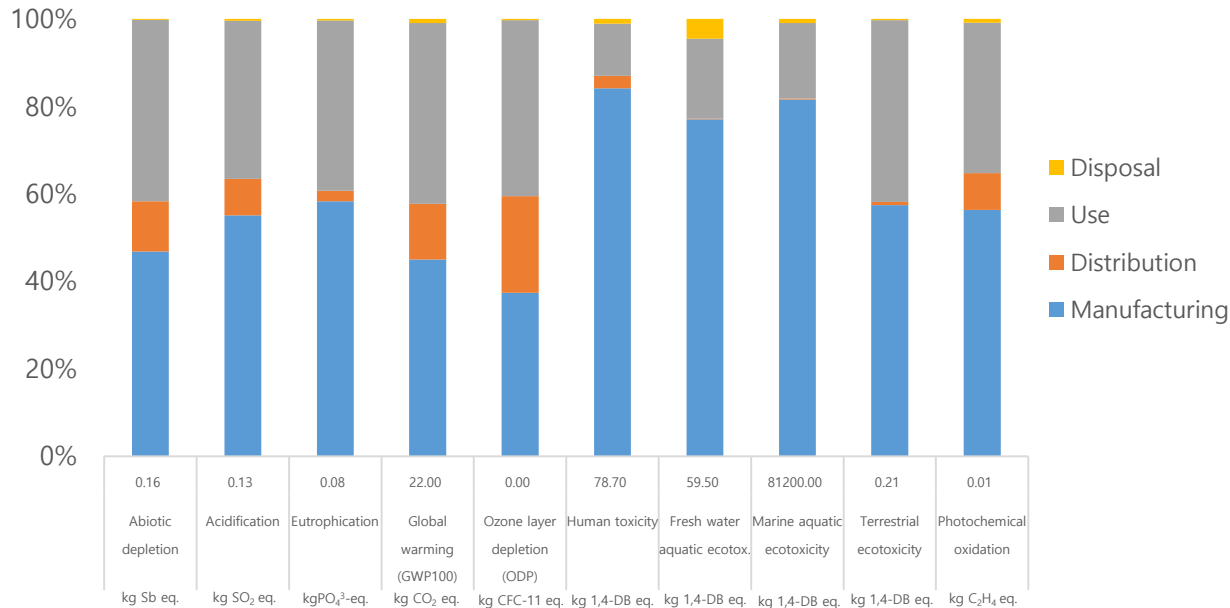


Model name	SM-M536B(Galaxy M53)
Dimension	169.5 x 77.0 x 7.4 mm
Display	6.7" OLED
Weight	Product&Acc. : 196.85 g Packages : 114.09 g

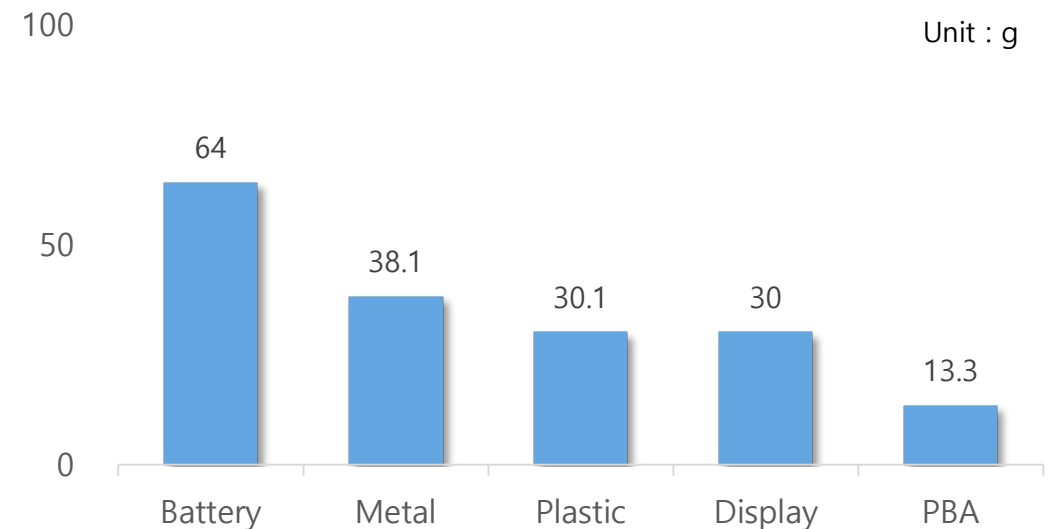
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy M33

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

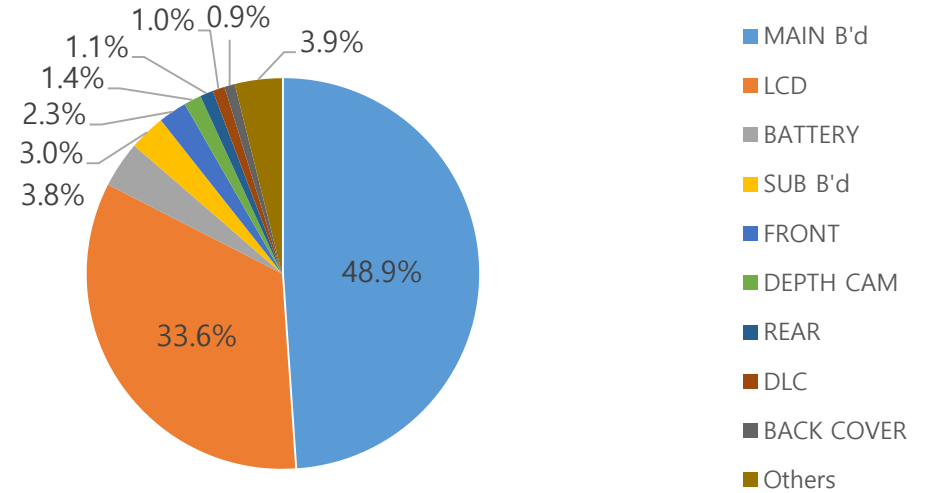
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

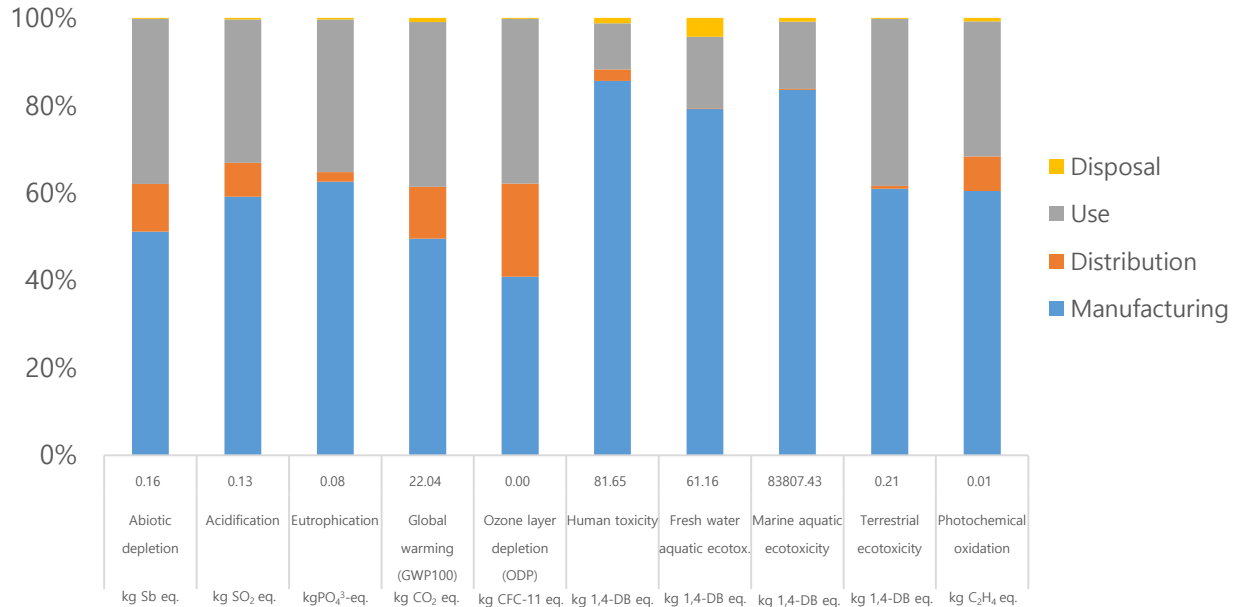


Model name	SM-M336B(Galaxy M33)
Dimension	165.4 x 76.9 x 8.4 mm
Display	6.6" LCD
Weight	Product&Acc. : 219.40 g Packages : 73.89 g

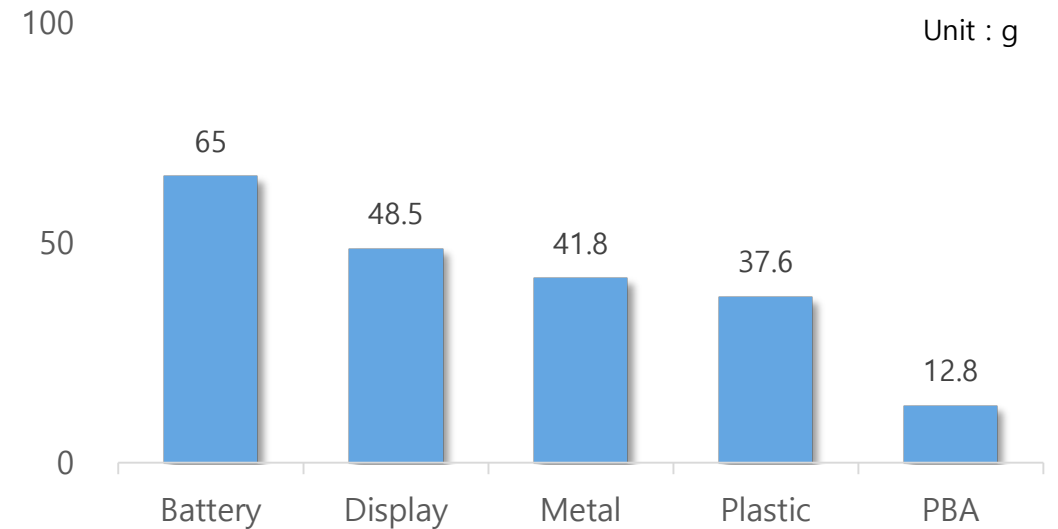
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy M23

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

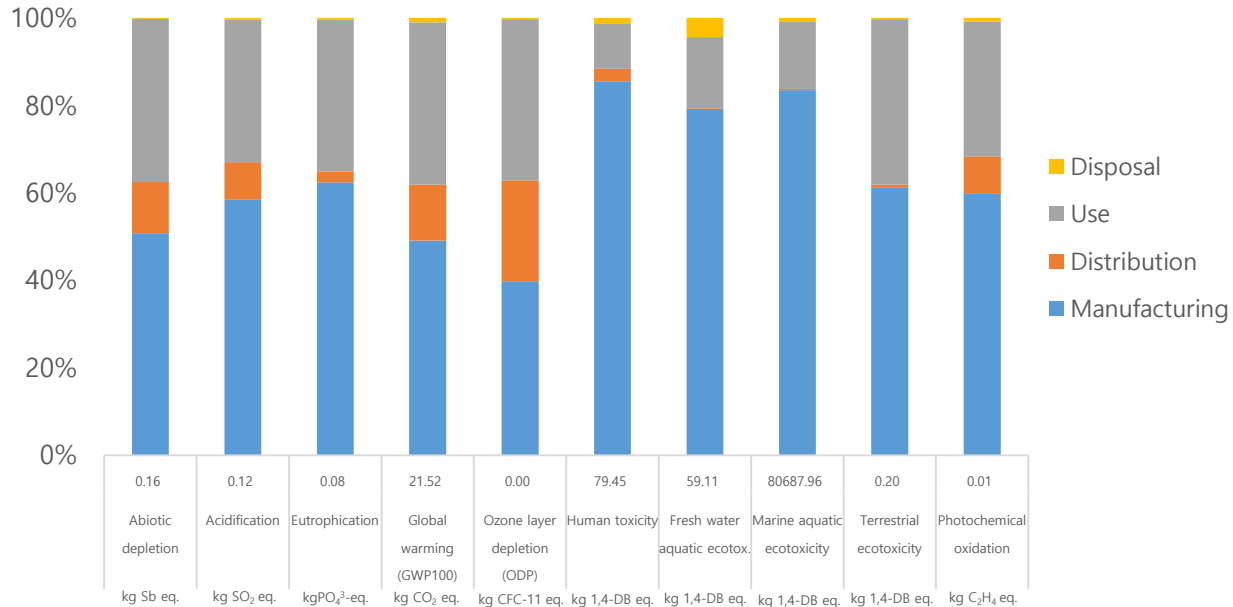
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

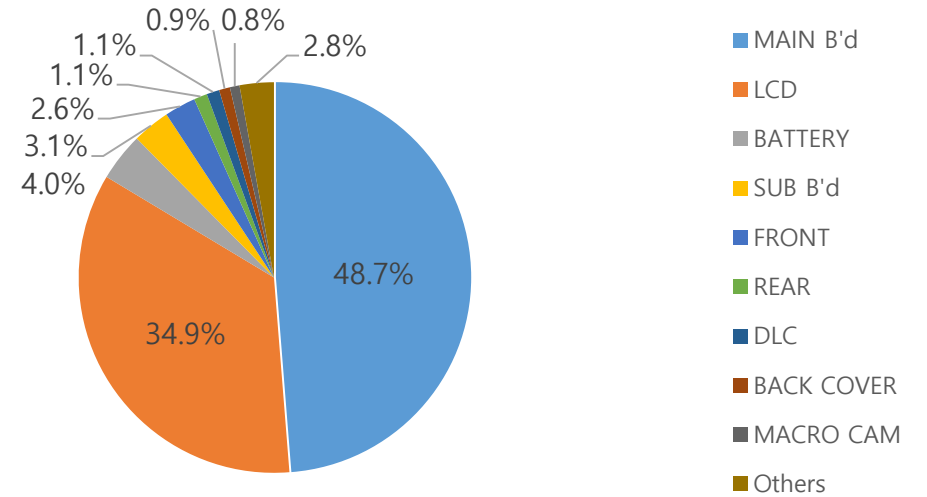


Model name	SM-M236B(Galaxy M23)
Dimension	167.2 x 77.0 x 8.4 mm
Display	6.6" LCD
Weight	Product&Acc. : 218.55 g Packages : 92.98 g

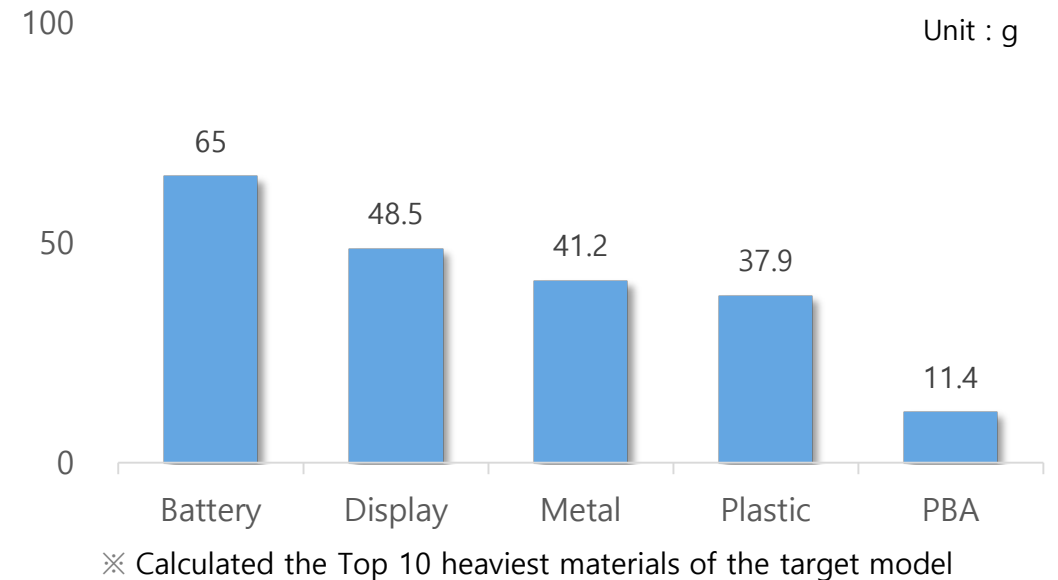
● Characterized Environment Impact



● Global Warming Impact Profile



● Top 5 Substances of Target model



Life Cycle Assessment for Galaxy A13

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

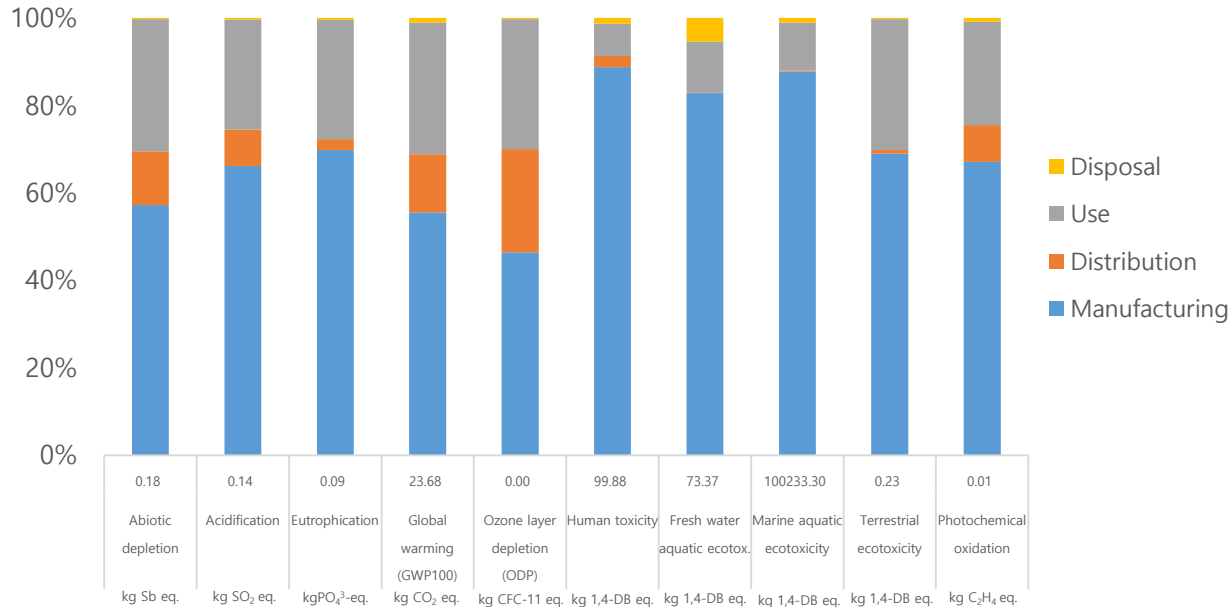
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

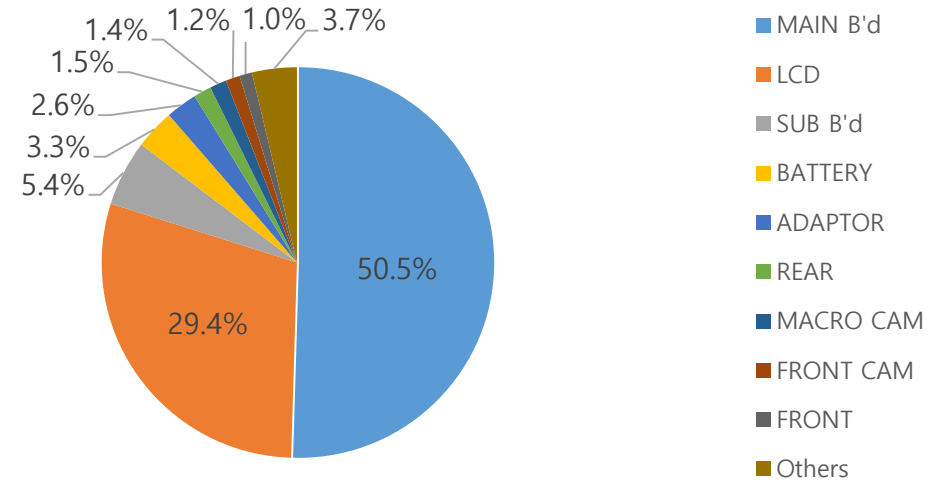


Model name	SM-A135F(Galaxy A13)
Dimension	165.1 x 76.4 x 8.8 mm
Display	6.6" LCD
Weight	Product&Acc. : 264.14 g Packages : 90.43 g

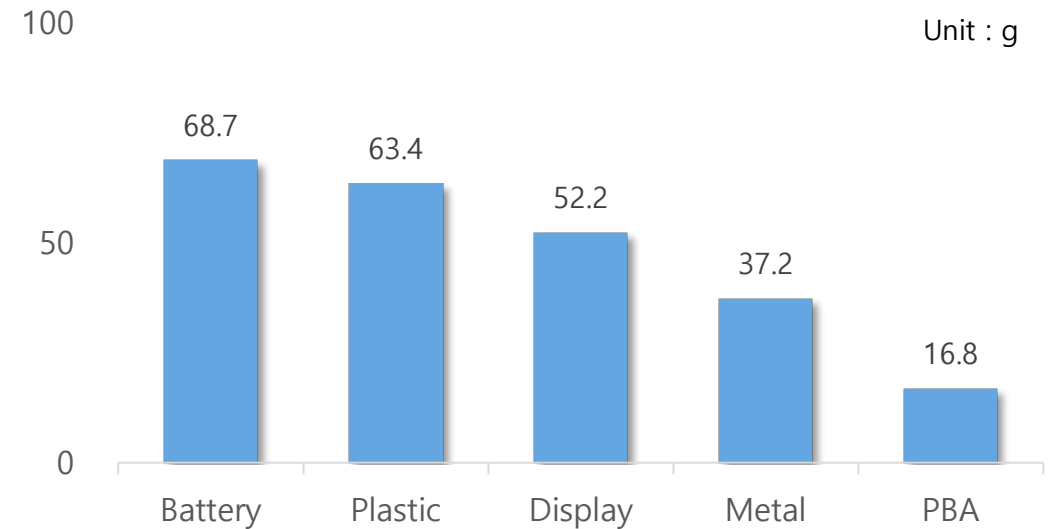
● Characterized Environment Impact



● Global Warming Impact Profile



● Top 5 Substances of Target model



※ Calculated the Top 10 heaviest materials of the target model

Life Cycle Assessment for Galaxy S22 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

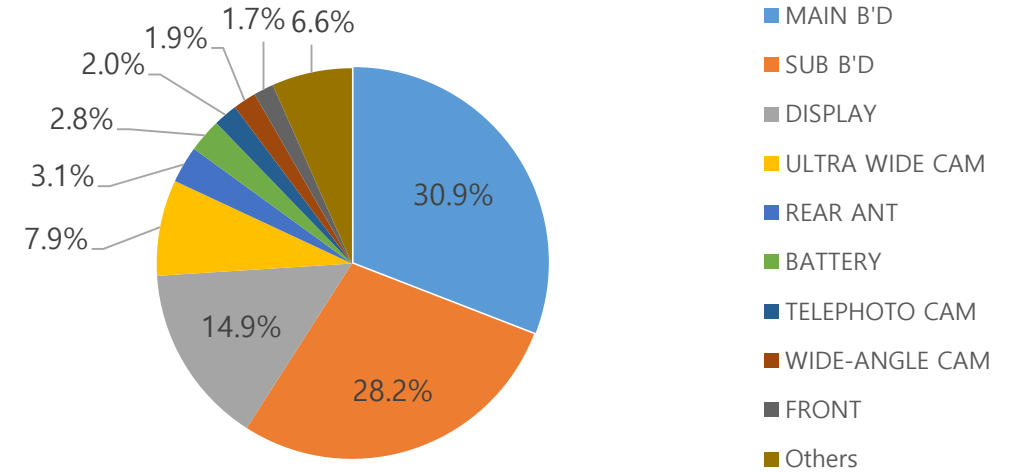
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

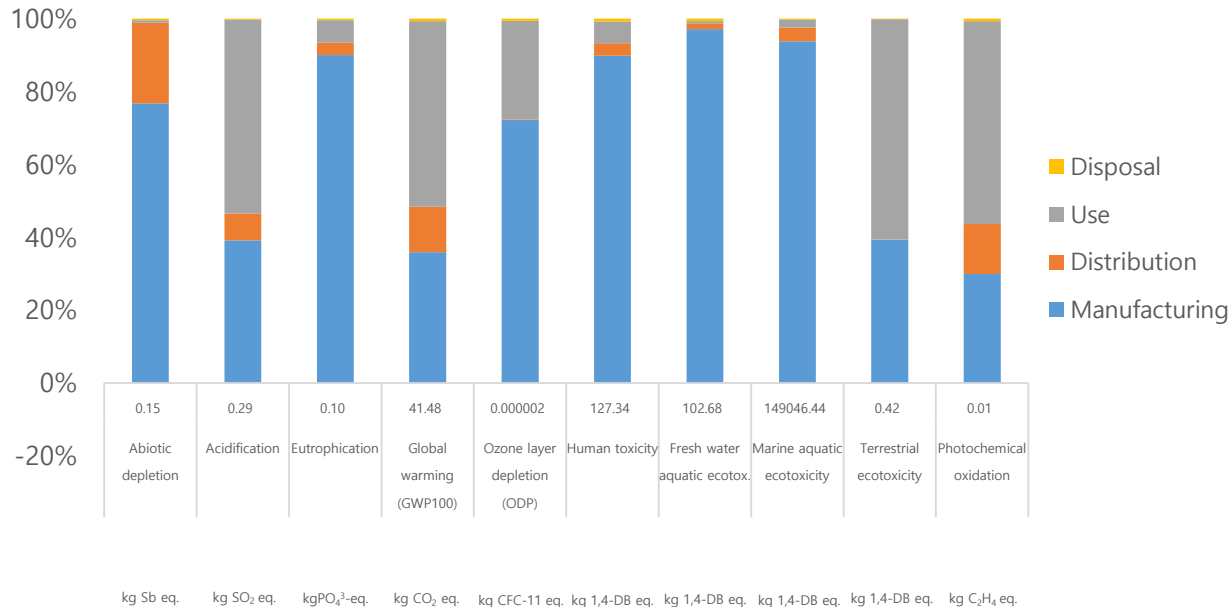


Model name	SM-S908U(Galaxy S22 Ultra)
Dimension	163.3 x 77.9 x 8.9 mm
Display	OLED 6.8"
Weight	Product & Acc. : 250.05 g Packages : 124.74 g

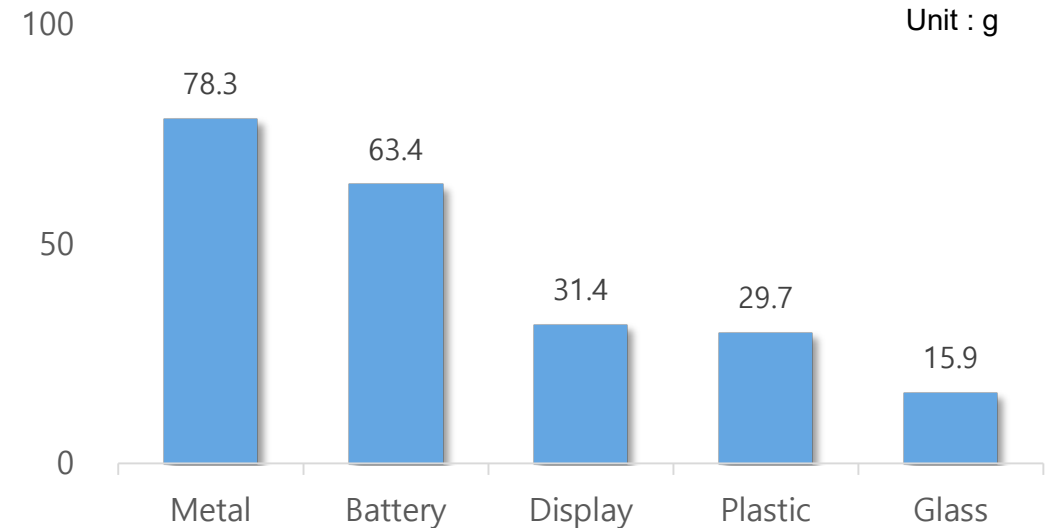
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 5 heaviest materials of the target model

Life Cycle Assessment for Galaxy S22+

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

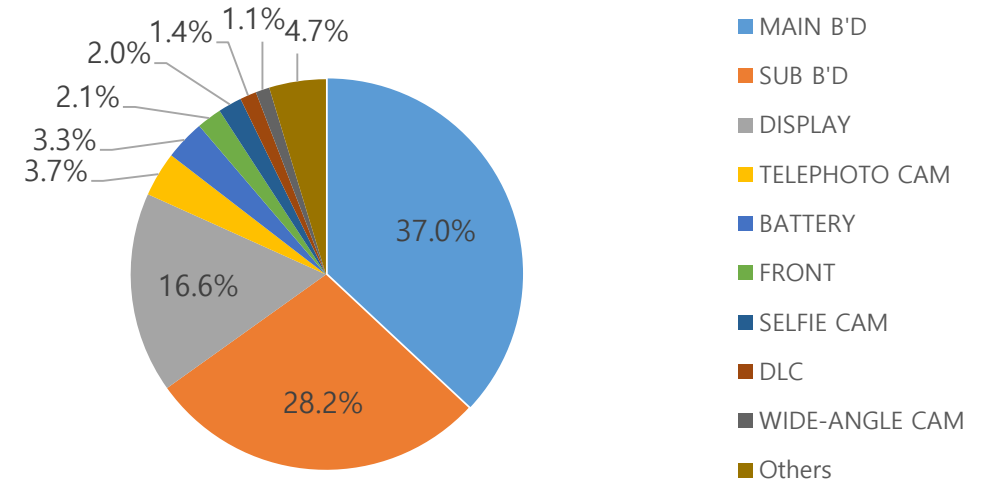
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

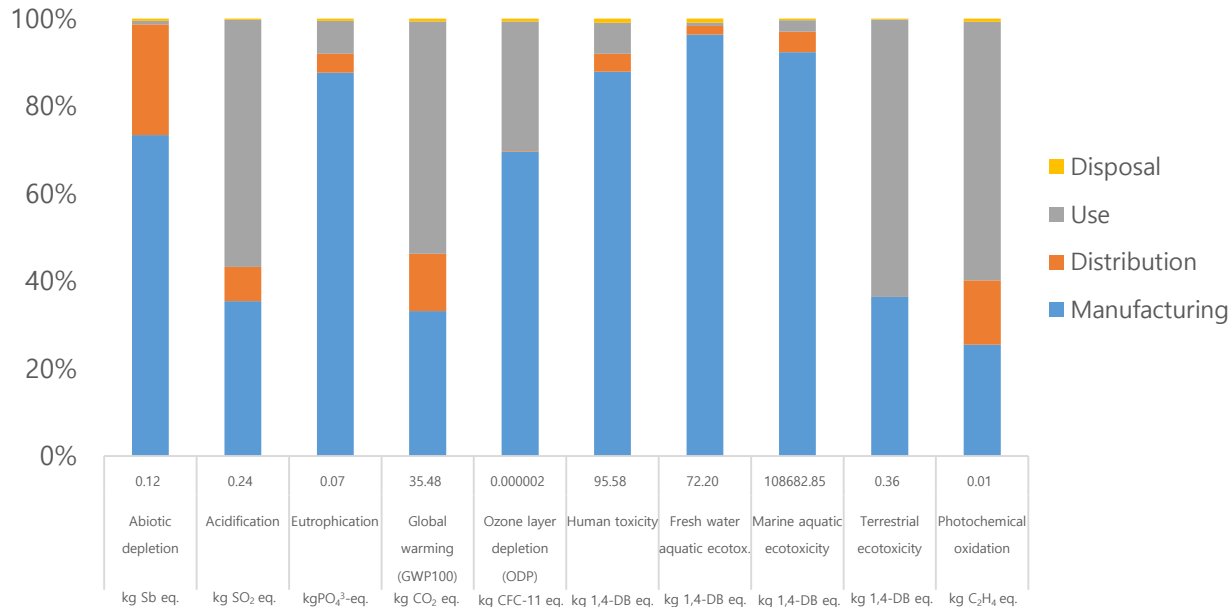


Model name	SM-S906U(Galaxy S22+)
Dimension	157.4 x 75.8 x 7.6 mm
Display	OLED 6.6"
Weight	Product & Acc. : 217.05 g Packages : 121.11 g

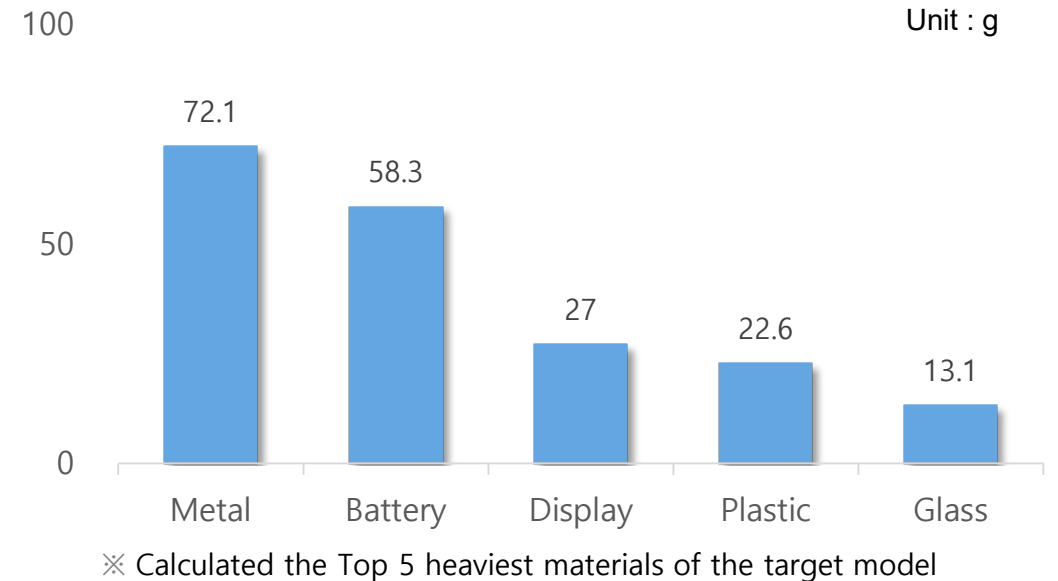
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



Life Cycle Assessment for Galaxy S22

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its products. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.3.0.3 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.8
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.3.0.3 LCA tool
LCA software	SimaPro 9.3.0.3

● System boundary of LCA

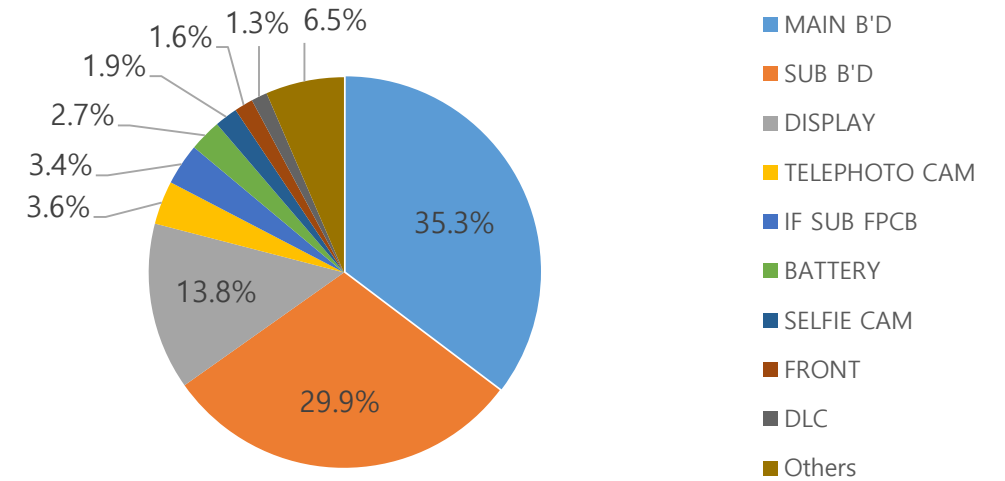
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to United States
Use	3 years use
Disposal	Waste treatment of parts and material

● Product Features

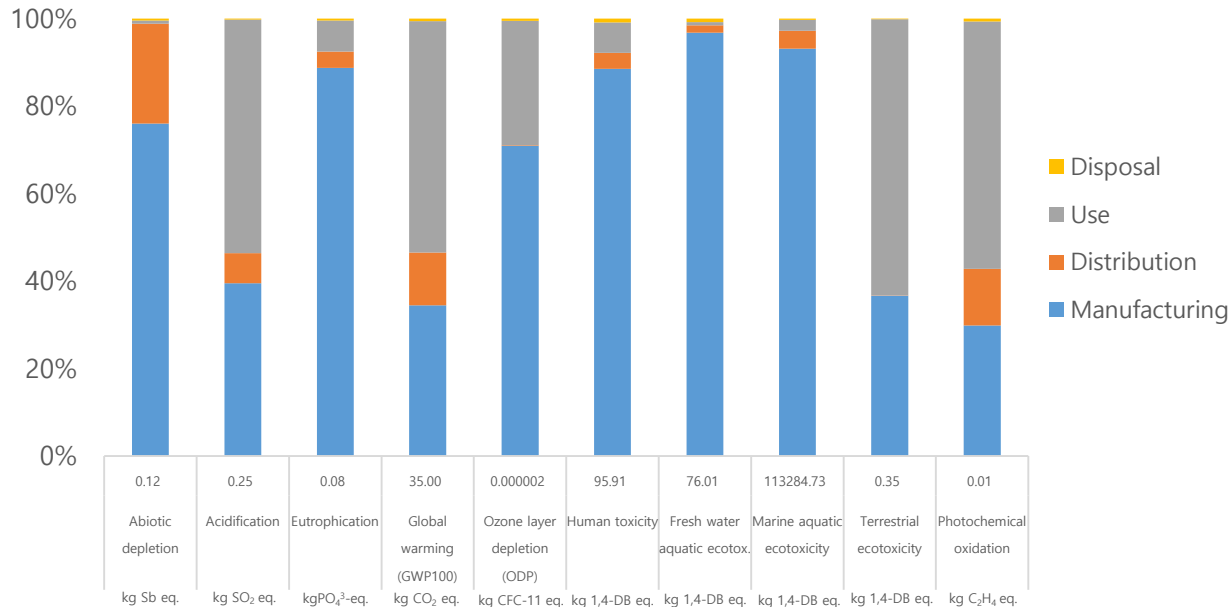


Model name	SM-S901U(Galaxy S22)
Dimension	146.0 x 70.6 x 7.6 mm
Display	OLED 6.1"
Weight	Product & Acc. : 189.17 g Packages : 116.91 g

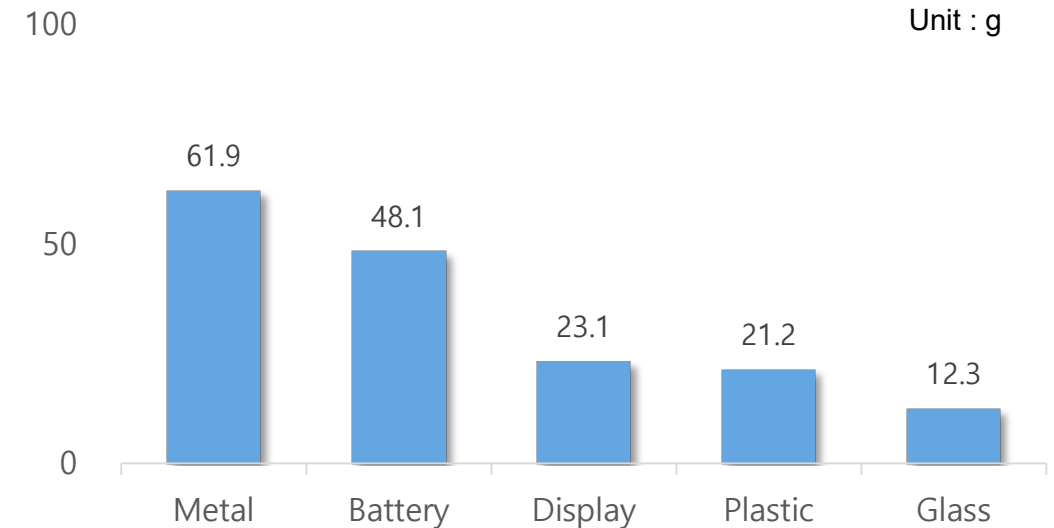
● Global Warming Impact Profile



● Characterized Environment Impact



● Top 5 Substances of Target model



※ Calculated the Top 5 heaviest materials of the target model

Life Cycle Assessment for Galaxy S21 FE

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environmental impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

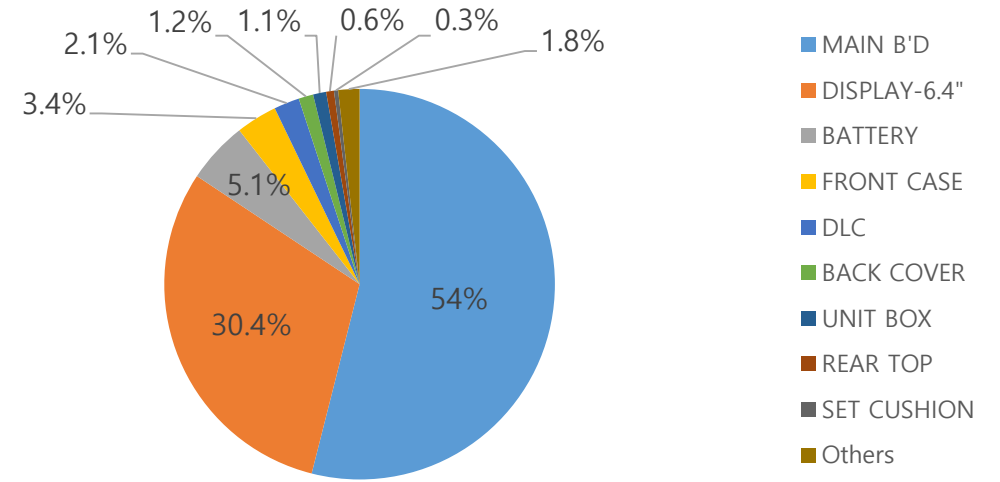
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

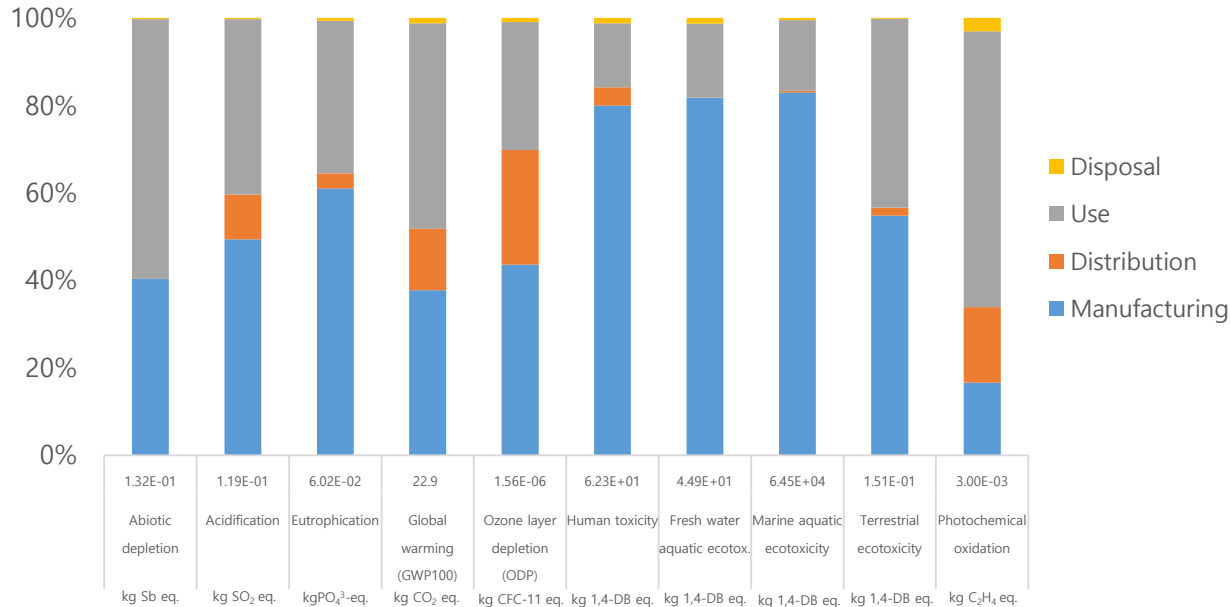


Model name	SM-G990B(Galaxy S21 FE)
Dimension	155.7 x 74.5 x 7.9 mm
Display	OLED 6.4"
Weight	Product&Acc. : 202.11 g Packages : 136.43 g

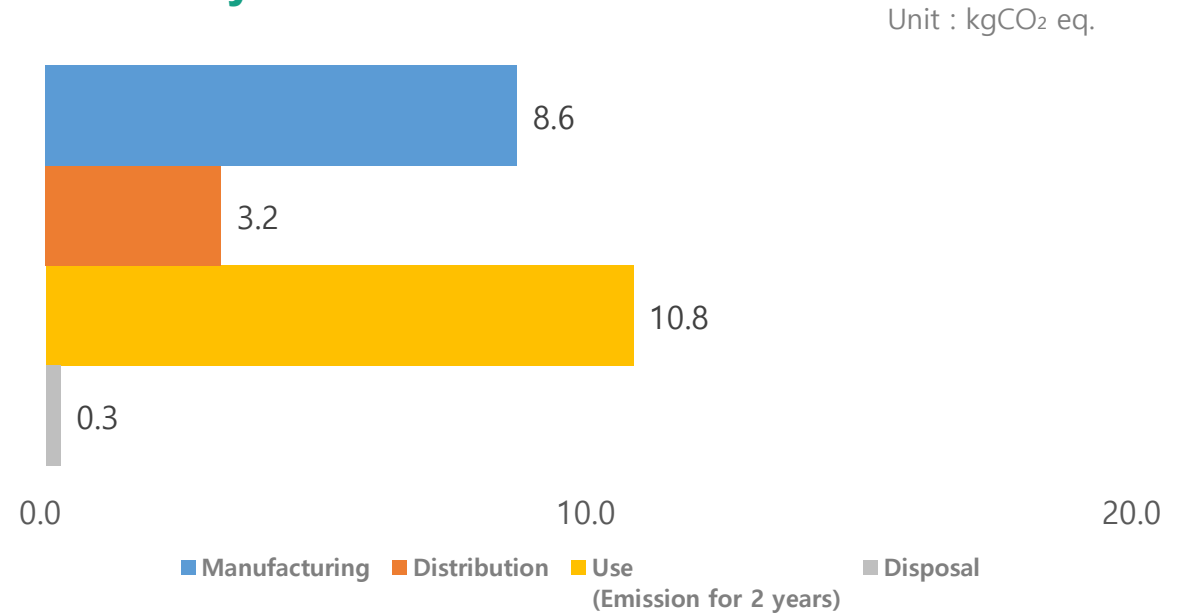
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy S20 FE

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environmental impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

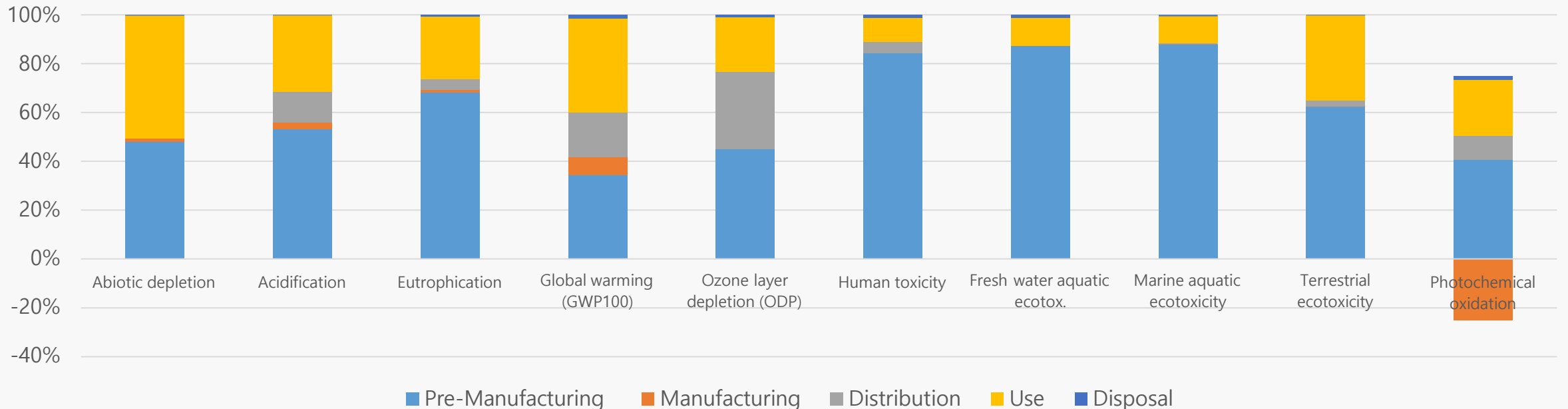


Model name	SM-G781B(Galaxy S20 FE)
Processor	Qualcomm, SM8250, 2.8GHz,2.4GHz, 1.8GHz Octa-Core 64bit
Dimension	159.8 x 74.5 x 8.4 mm
Display	On-Cell Touch AMOLED, 6.5"
Memory	ROM 128GB, RAM 6GB
Battery	4370 mAh
Camera	Main : 12.0M pixel / Sub : 32.0M pixel
Weight	Product&Acc. : 253.74g / PKG : 229.66g

● Numerical environmental impact

Impact category	Total	Unit	Pre-Manu facturing	Manu facturing	Distribution	Use	Disposal
Abiotic depletion	1.40E-01	kg Sb eq.	6.72E-02	1.62E-03	8.69E-06	7.03E-02	4.74E-04
Acidification	1.37E-01	kg SO ₂ eq.	7.29E-02	3.37E-03	1.74E-02	4.27E-02	3.07E-04
Eutrophication	7.30E-02	kgPO ₄ ³ -eq.	4.98E-02	8.88E-04	2.97E-03	1.88E-02	5.15E-04
Global warming (GWP100)	2.50E+01	kg CO ₂ eq.	8.63E+00	1.84E+00	4.58E+00	9.64E+00	3.56E-01
Ozone layer depletion (ODP)	1.83E-06	kg CFC-11 eq.	8.22E-07	5.08E-11	5.83E-07	4.08E-07	1.72E-08
Human toxicity	8.20E+01	kg 1,4-DB eq.	6.92E+01	7.81E-05	3.69E+00	8.14E+00	1.03E+00
Fresh water aquatic ecotox.	6.02E+01	kg 1,4-DB eq.	5.25E+01	1.59E-04	3.26E-02	6.81E+00	8.05E-01
Marine aquatic ecotoxicity	8.41E+04	kg 1,4-DB eq.	7.40E+04	1.33E-01	3.22E+02	9.33E+03	4.84E+02
Terrestrial ecotoxicity	1.67E-01	kg 1,4-DB eq.	1.04E-01	4.86E-06	3.99E-03	5.83E-02	4.36E-04
Photochemical oxidation	3.70E-03	kg C ₂ H ₄ eq.	3.03E-03	-1.88E-03	7.39E-04	1.69E-03	1.14E-04

● Characterized Environment Impact



Life Cycle Assessment for Galaxy Z Fold3

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environmental impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

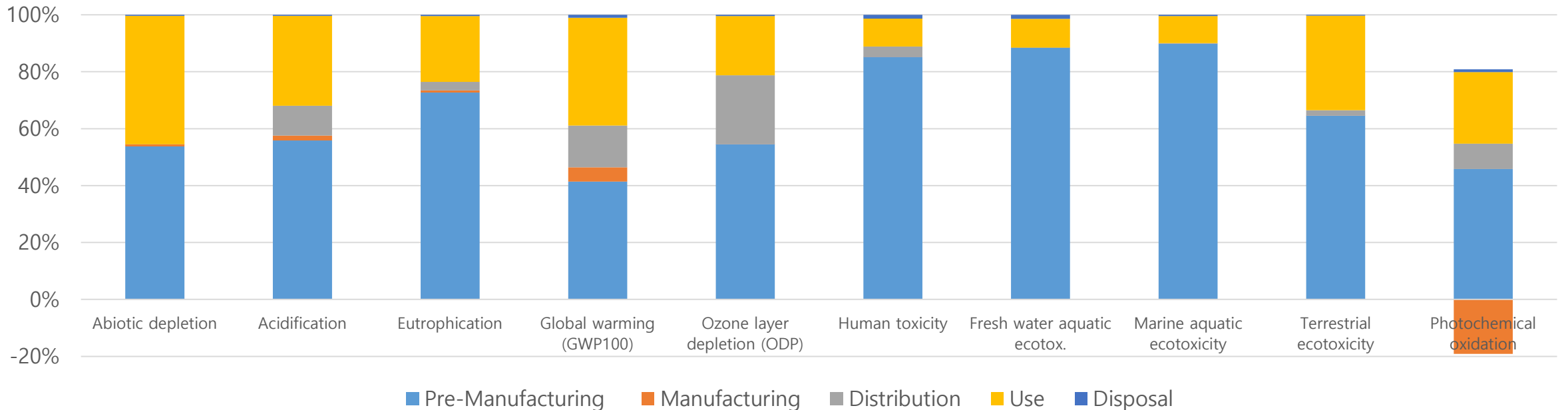


Model name	SM-F926B(Galaxy Z Fold3)
Processor	Qualcomm, SM8350, 2.84GHz,2.4GHz, 1.8GHz Octa-Core 64bit
Dimension	158.2 x 128.1 x 6.4 mm
Display	OLED 7.6" / 6.2"
Memory	ROM 256GB, RAM 12GB
Battery	4275 mAh
Camera	Main : 12.0M pixel / Sub : 4.0M pixel
Weight	Product&Acc. : 290.16g / PKG : 209.87g

● Numerical environmental impact

Impact category	Total	Unit	Pre-Manu facturing	Manu facturing	Distribution	Use	Disposal
Abiotic depletion	1.97E-01	kg Sb eq.	1.06E-01	1.42E-03	8.99E-06	8.92E-02	6.64E-04
Acidification	1.72E-01	kg SO ₂ eq	9.58E-02	2.95E-03	1.80E-02	5.41E-02	6.35E-04
Eutrophication	1.03E-01	kg PO ₄ ³⁻ eq	7.51E-02	7.78E-04	3.08E-03	2.39E-02	4.95E-04
Global warming (GWP100)	3.23E+01	kg CO ₂ eq	1.34E+01	1.61E+00	4.74E+00	1.22E+01	3.38E-01
Ozone layer depletion (ODP)	2.49E-06	kg CFC11 eq	1.36E-06	4.45E-11	6.03E-07	5.18E-07	1.18E-08
Human toxicity	1.05E+02	kg 1,4-DB eq	8.98E+01	6.84E-05	3.83E+00	1.03E+01	1.40E+00
Fresh water aquatic ecotox.	8.56E+01	kg 1,4-DB eq	7.57E+01	1.39E-04	3.38E-02	8.64E+00	1.20E+00
Marine aquatic ecotoxicity	1.25E+05	kg 1,4-DB eq	1.12E+05	1.17E-01	3.33E+02	1.18E+04	5.53E+02
Terrestrial ecotoxicity	2.22E-01	kg 1,4-DB eq	1.44E-01	4.26E-06	4.13E-03	7.39E-02	6.96E-04
Photochemical oxidation	5.27E-03	kg C ₂ H ₄	3.92E-03	-1.64E-03	7.65E-04	2.15E-03	8.25E-05

● Characterized Environment Impact



Life Cycle Assessment for Galaxy Z Flip3

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environmental impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

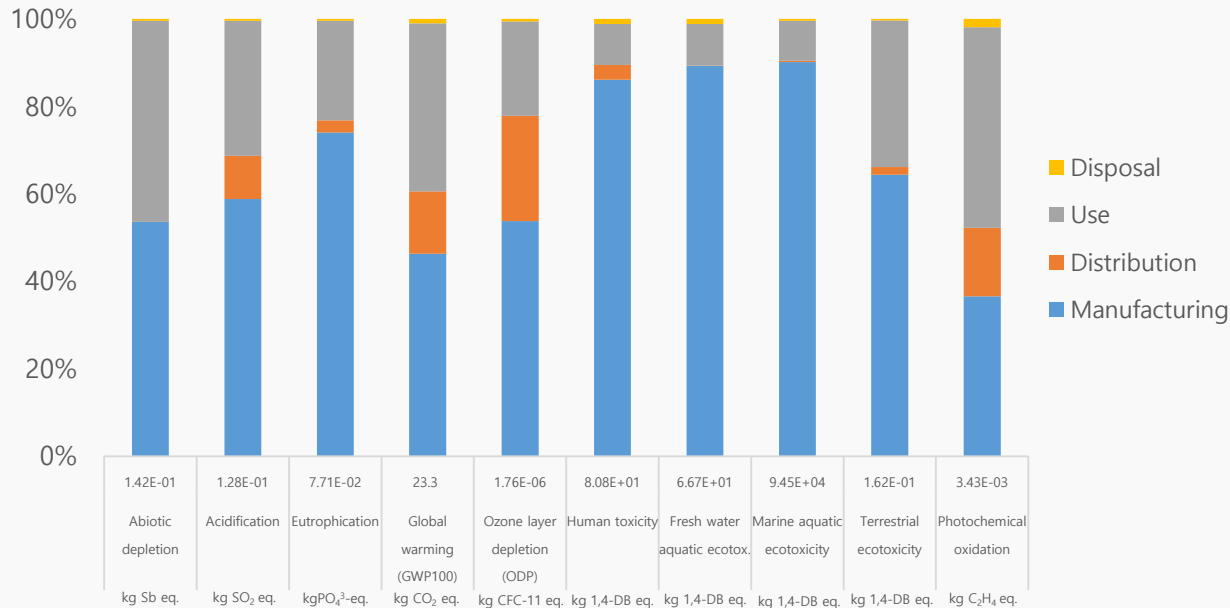
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

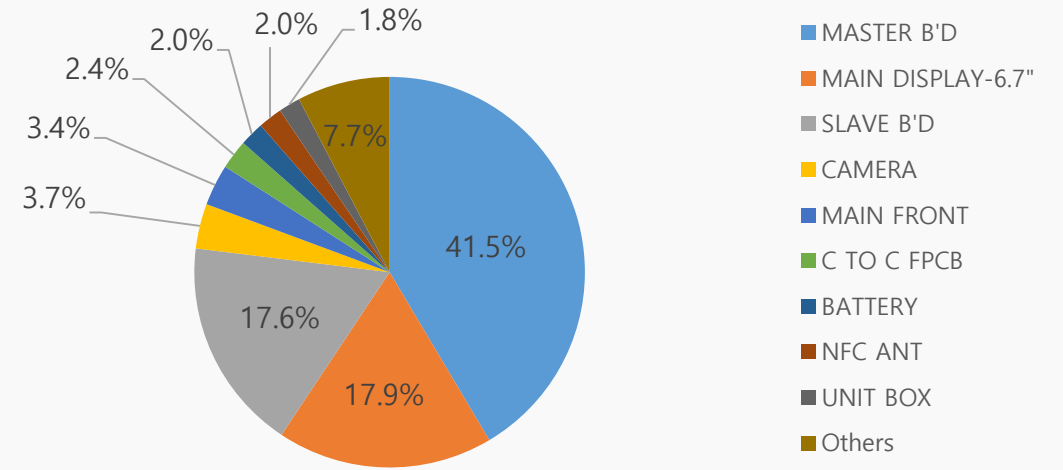


Model name	SM-F711B(Galaxy Z Flip3)
Dimension	166.0 x 72.2 x 6.9 mm
Display	OLED 6.7" / 1.9"
Weight	Product&Acc. : 209.49 g Packages : 142.25 g

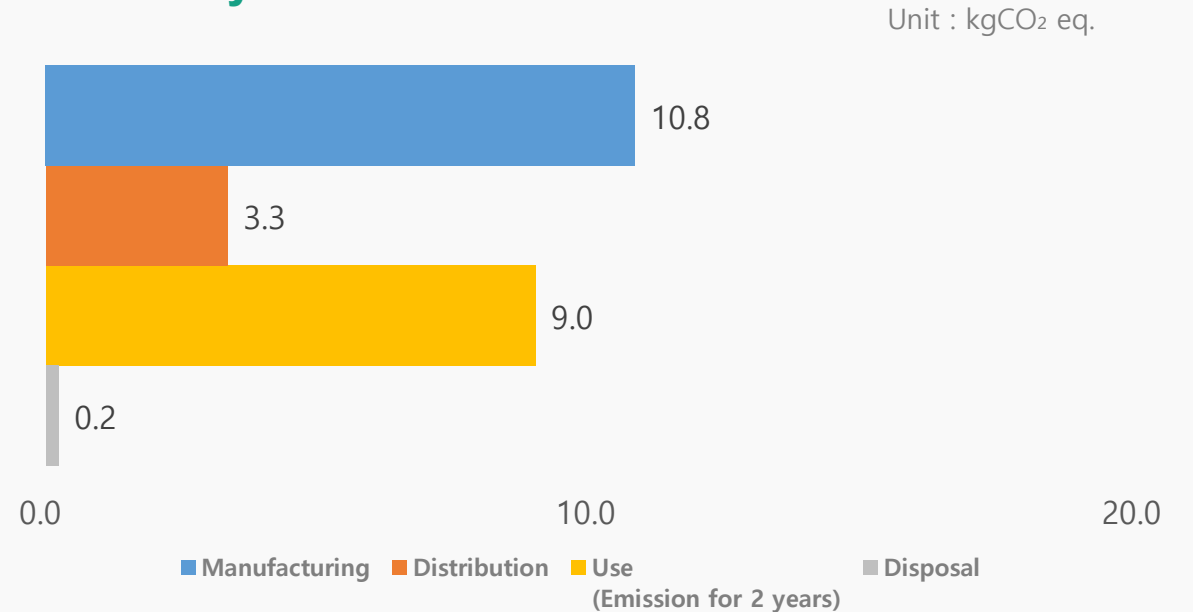
● Characterized Environment Impact



● Global Warming Impact Profile



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy A12

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environmental impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

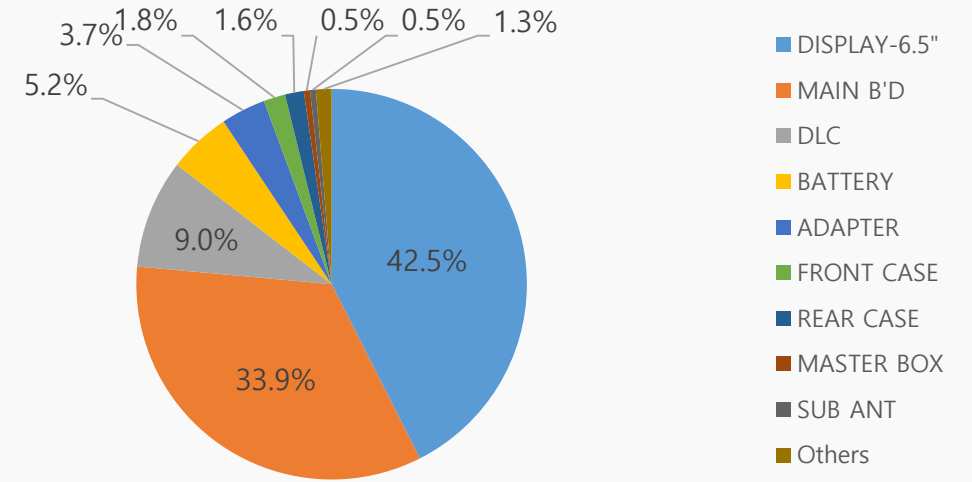
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

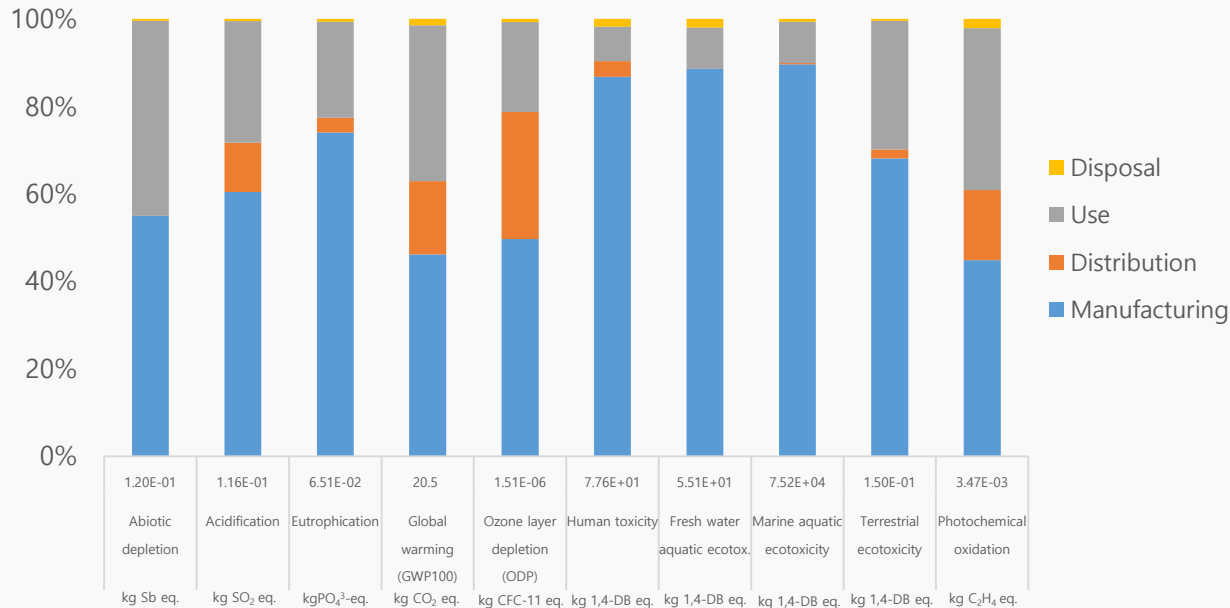


Model name	SM-A127F(Galaxy A12)
Dimension	164 × 75.8 × 8.9 mm
Display	LCD 6.5"
Weight	Product&Acc. : 268.45 g Packages : 93.77 g

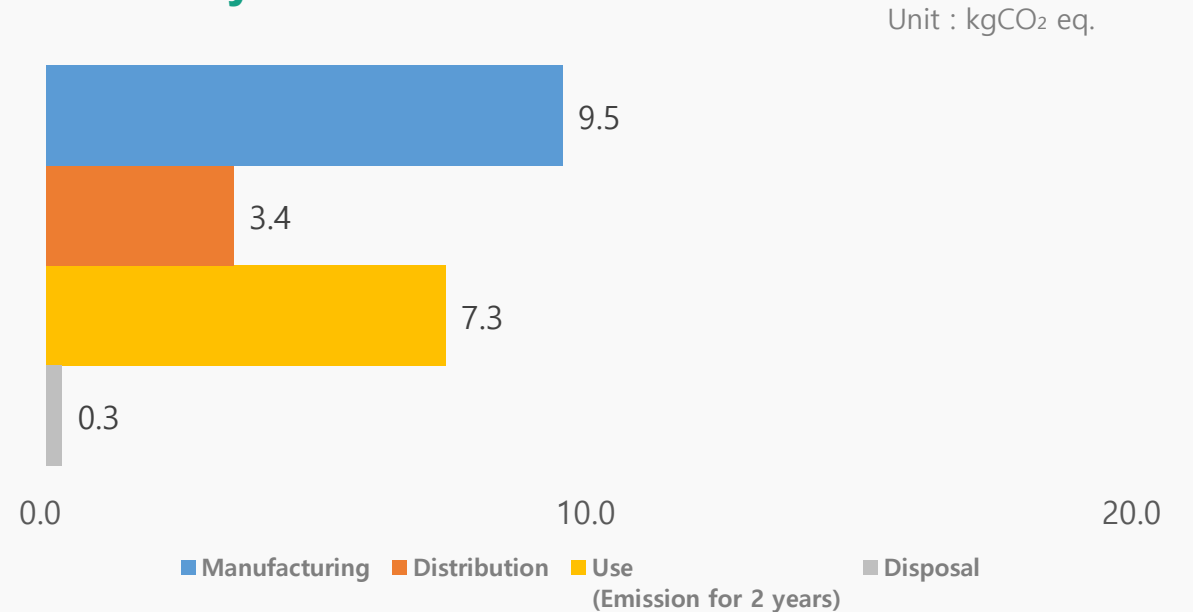
● Global Warming Impact Profile



● Characterized Environment Impact



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Galaxy Note20 Ultra

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase. To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used SimaPro 9.1.1.1 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material(BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 10 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 3.6
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2 baseline 2000 V2.05 / the Netherlands, 1997 as provided in the SimaPro 9.1.1.1 LCA tool
LCA software	SimaPro 9.1.1.1

● System boundary of LCA

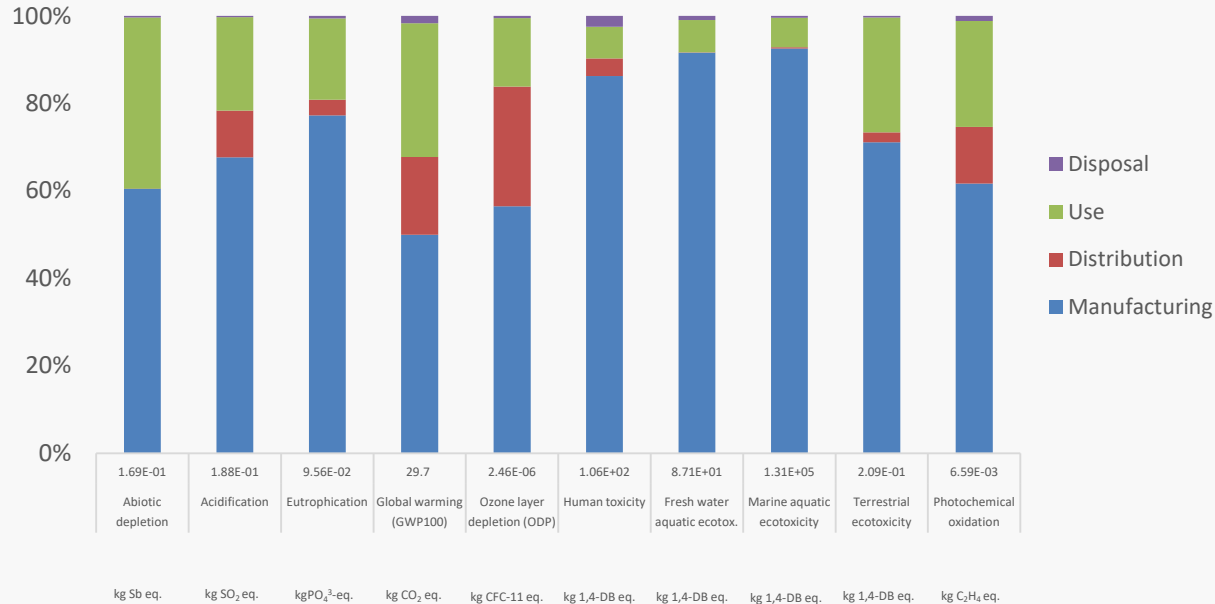
Pre-manufacturing	Parts and materials constituting the products and its transportation
Manufacturing	Product assembly by Samsung Electronics
Distribution	From Korea to EU
Use	2 years use
Disposal	Waste treatment of parts and material

● Product Features

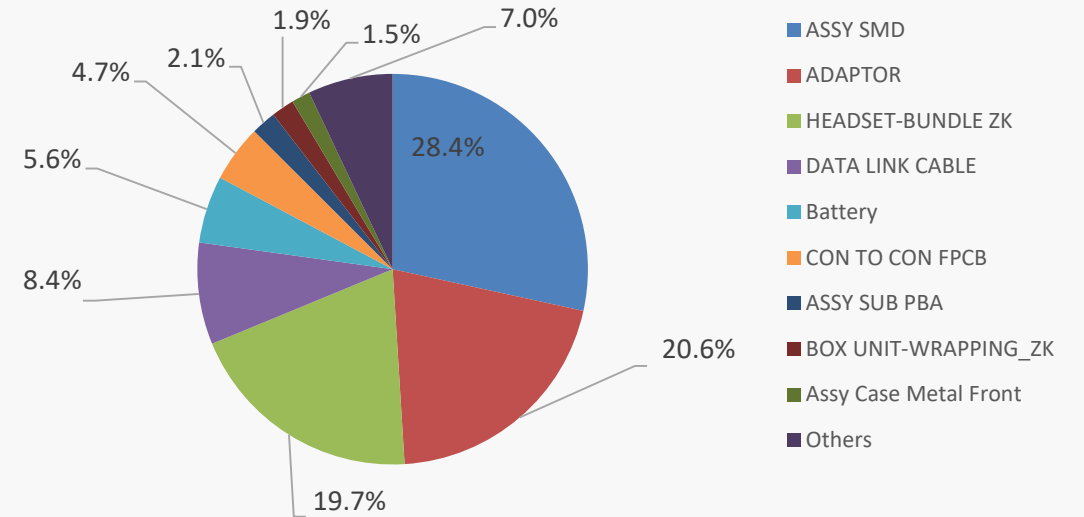


Model name	SM-N986B (Galaxy Note20 Ultra)
Processor	Octa-Core 3.09GHz,2.4GHz,1.8GHz
Dimension	164.8 x 77.2 x 8.1 mm
Display	OLED 6.9"
Memory	ROM 256GB, RAM 12GB
Battery	4500 mAh
Camera	Main : 108M pixel / Sub : 10M pixel
Weight	Product&Acc. : 303.79g / PKG 252.14g

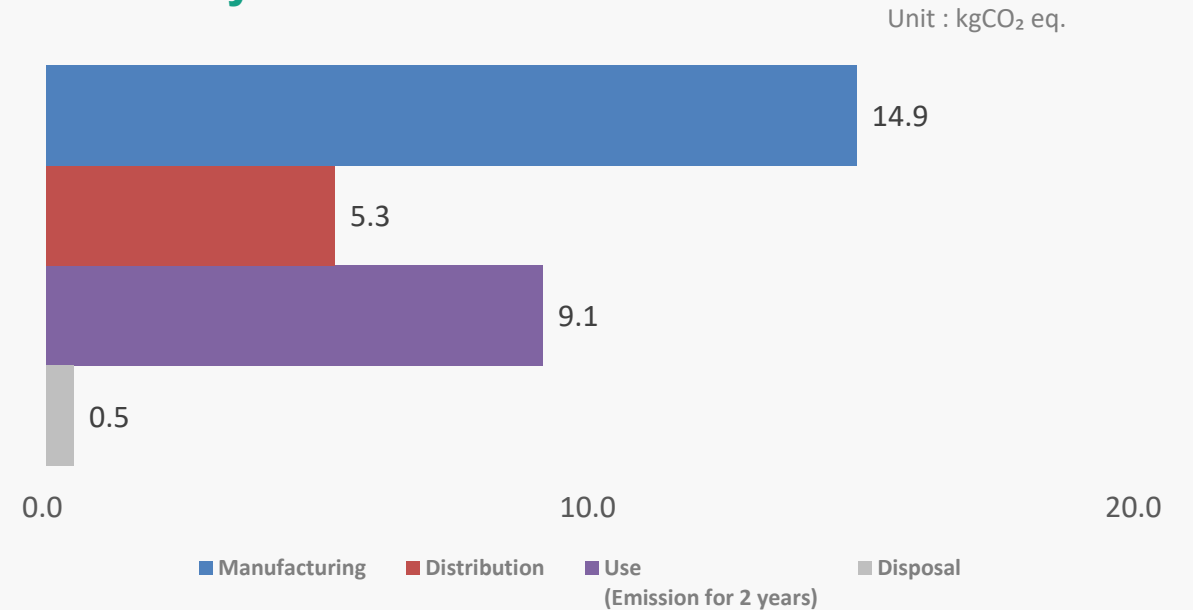
● Characterized Environment Impact



● Global Warming Impact Profile



● Life Cycle Carbon Emissions



* The results differ from to region, But not by much.

Life Cycle Assessment for Mobile Products

● Background

Samsung has developed strong technical experience in assessing the life cycle environmental impacts of its smart phones. The most recent life cycle assessment (LCA) has been for the Samsung Galaxy S6; Note5; J1x; On5x; Note8. The assessment considers potential environmental impacts across the whole life cycle including; pre-manufacturing; product manufacturing; distribution; product use; and disposal phase.

To ensure technical quality; the analysis methodology has been completed according to international standard ISO 14040 series. Samsung has used Simapro7 software and a dedicated LCA S/W database to measure environmental impacts using a wide range of data categories including; Product bill of material (BOM), parts and components logistics, energy consumption in product use and end-of-life scenario data in order to attain the highest level of accuracy. The outcome of the LCA confirmed and quantified 12 potential environment impact categories including; global warming; abiotic depletion; ocean acidification; eutrophication; and ozone layer depletion; where each impact category has been assessed for each life cycle stage. These LCA results will continue to be considered during product development phase as we aspire to improve the environmental specifications of our products.

● Calculation basis

Standard	ISO 14040:2006 and 14044:2006
Database	Ecoinvent 2.2
Method for impact assessment	Life cycle impact assessment classification and characterization factors according to CML 2001 as provided in the SimaPro 7.1.5 LCA tool
LCA software	SimaPro 7.1.5

● System boundary of LCA

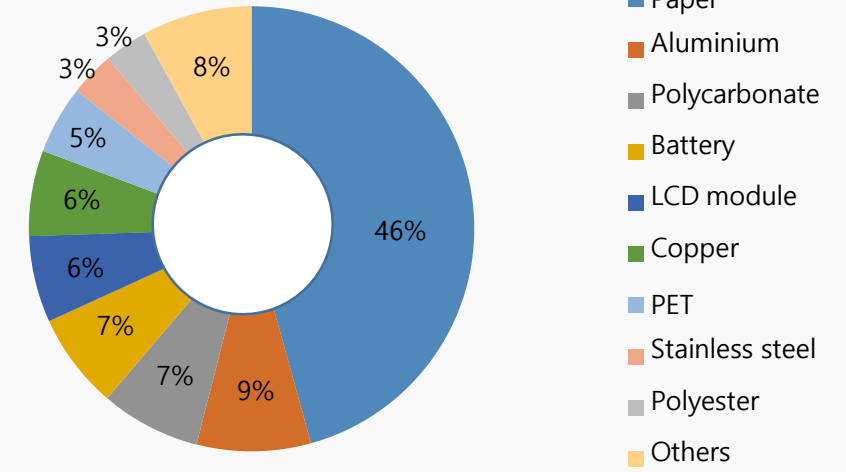
Pre-manufacturing	Parts and materials constituting the products and its transportation (from supplier to Samsung factory)
Manufacturing	Product assembly by Samsung Electronics (Data collection period : 3 months ahead of assessment)
Distribution	From China or Vietnam to United States
Usage	2 years use
Disposal	Waste treatment of parts and material

● Product Features

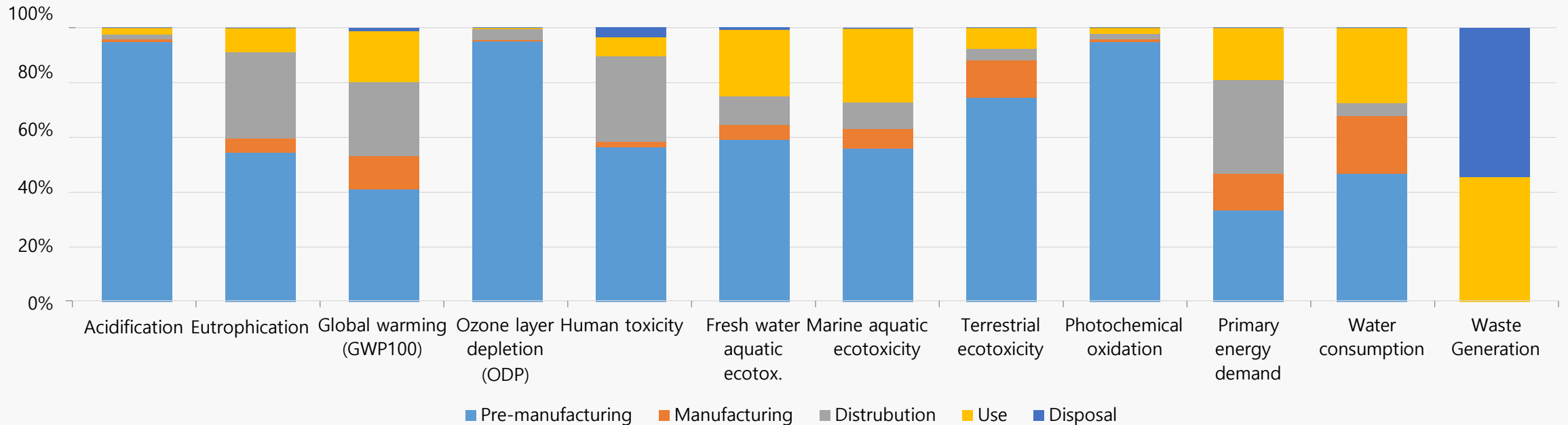


Model name	SM-N950U (Galaxy Note8)
Processor	Qualcomm 2.35GHz, 1.9GHz Octa-Core 64bit
Dimension	162.5 x 74.8 x 8.6 mm
Display	6.3" 2960 x 1440, 16M In-Cell Touch LCD
Battery	Li-Ion 3300 mAh
Camera	12 MP / 5MP
Wt.(g)	186.34g

● Material Use



● Characterized Environment Impact

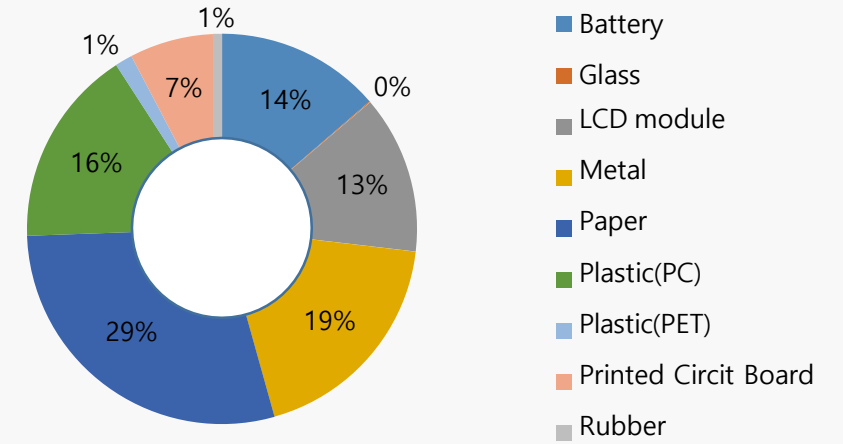


● Product Features

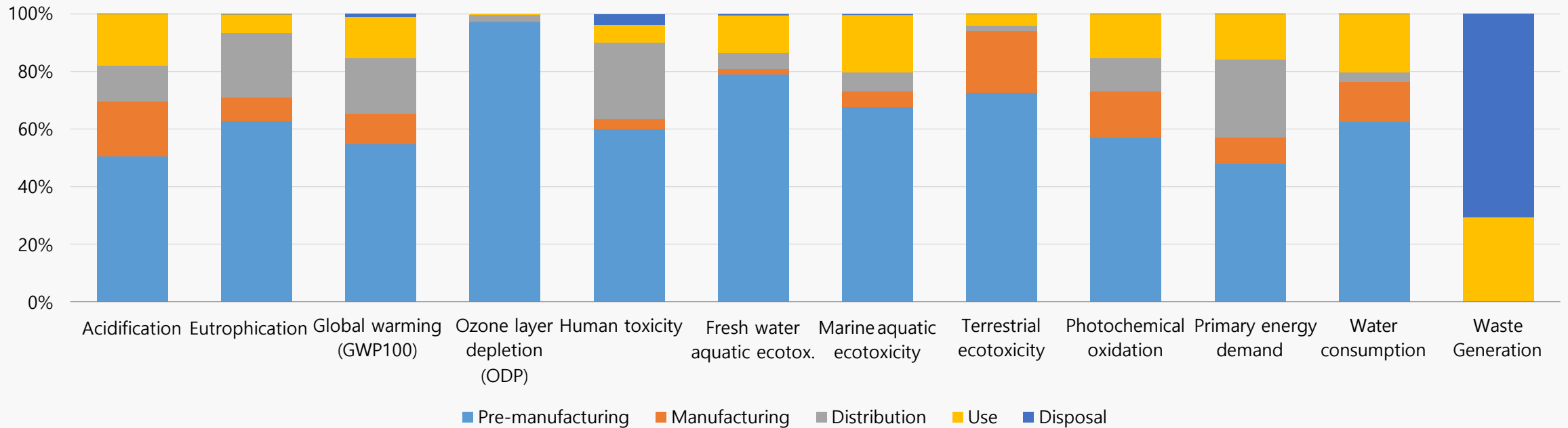


Model name	SM-G5510 (Galaxy On5x)
Processor	Quad-Core 1.4GHz
Dimension	142.8 x 69.5 x 8.1 mm
Display	LCD 5"
Battery	Li-Ion 2600 mAh
Camera	12 MP / 5MP
Wt.(g)	149 g

● Material Use



● Characterized Environment Impact

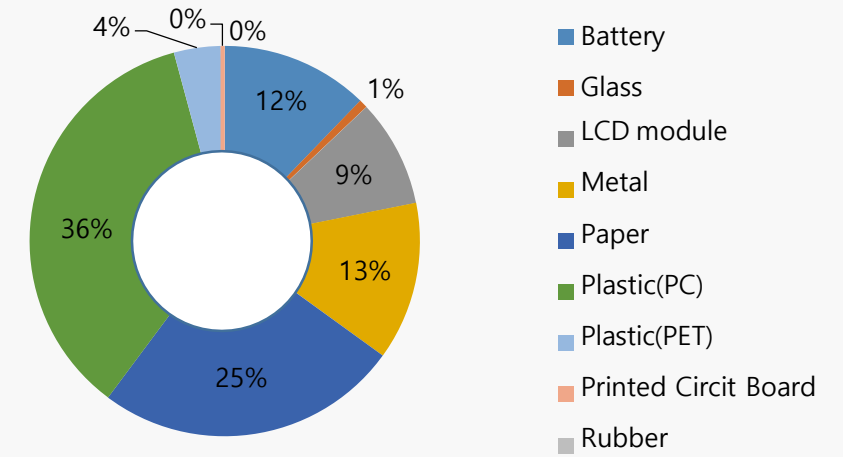


● Product Features

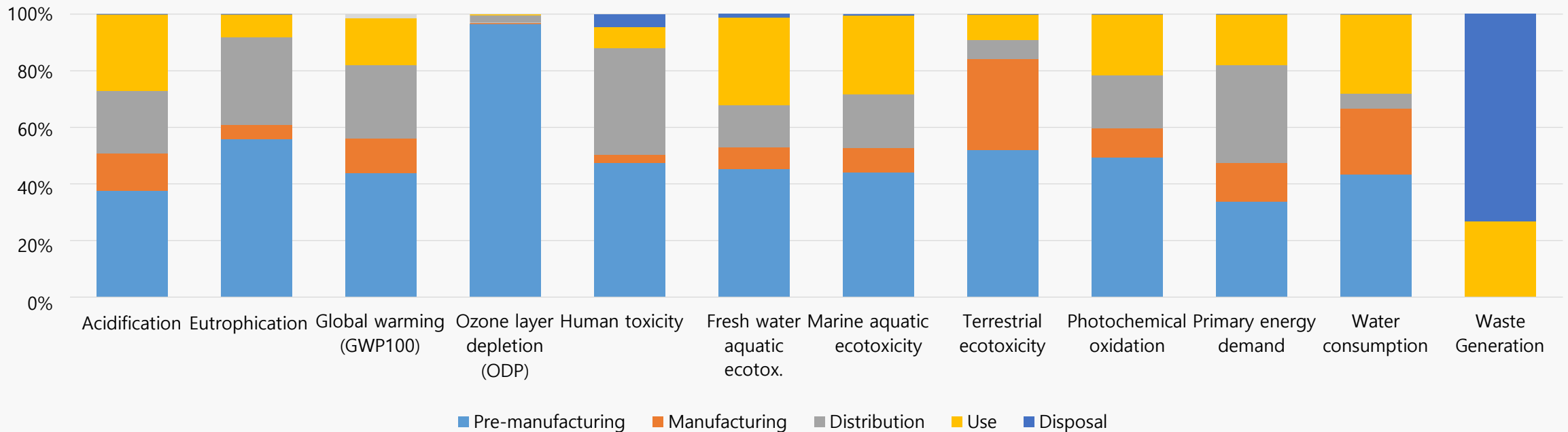


Model name	SM-J120A (Galaxy J1x)
Processor	Quad-core 1.2 GHz
Dimension	132.6 x 69.3 x 8.9 mm
Display	AMOLED 4.5"
Memory	microSD, up to 128 GB
Battery	Li-Ion 2050 mAh
Camera	5 MP
Wt.(g)	132 g

● Material Use



● Characterized Environment Impact

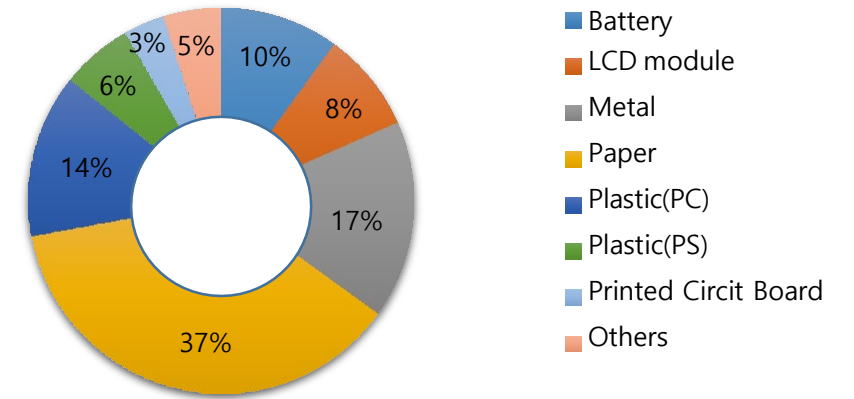


● Product Features

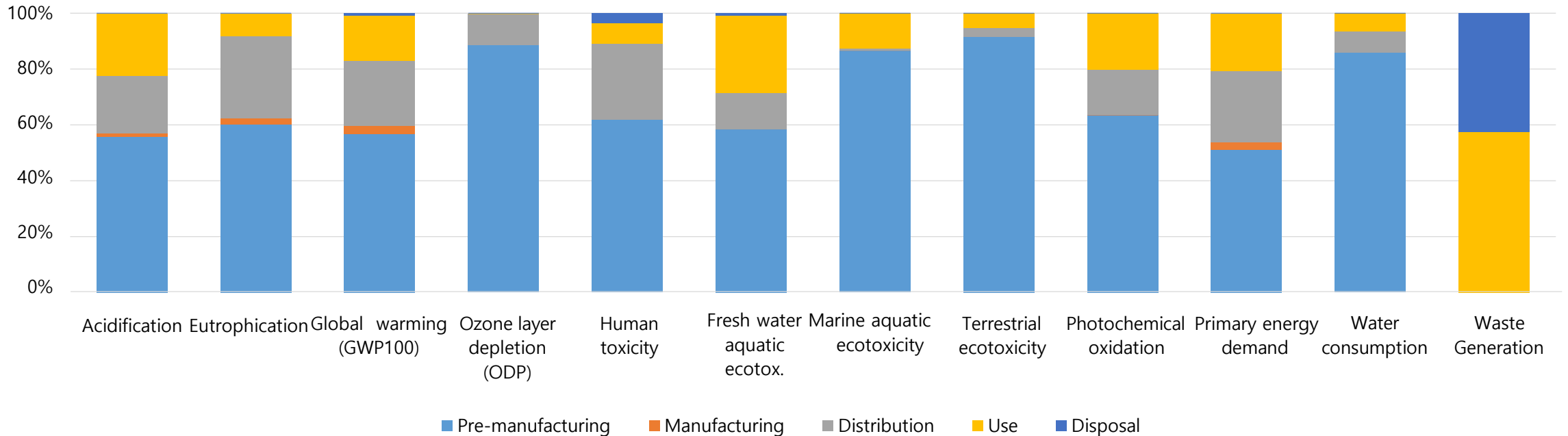


Model name	SM-N920V (Galaxy Note5)
Processor	Octa-Core 2.1GHz, 1.5GHz
Dimension	153.2 x 76.2 x 7.62 mm
Display	Super AMOLED 5.7”
Memory	32GB, 4GB RAM
Battery	3000mAh
Camera	Main : 16M pixel / Front : 5M pixel
Wt.(g)	Product : 192g / Packaging 259 g

● Material Use



● Characterized Environment Impact

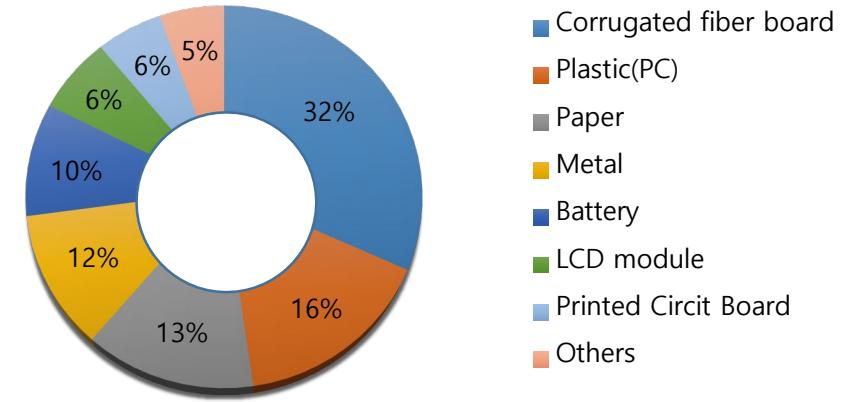


● Product Features



Model name	SM-G920V (Galaxy S6)
Processor	Octa-Core 2.1GHz, 1.5GHz
Dimension	143.4 x 70.5 x 6.8 mm
Display	Super AMOLED 5.1"
Memory	32GB
Battery	2550mAh
Camera	Main : 16M pixel / Front : 5M pixel
Wt.(g)	Product : 138g / Packaging 261 g

● Material Use



● Characterized Environment Impact

