

Louvain School of Management

Les scores ESG au sein du secteur automobile

Annexes

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Master en Sciences de gestion Financial management

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Annexe 1 : Détail du score de transparence ESG de Stellantis

STELLANTIS NV Equity FA Menu de fonctions connexes											
STLAP FP € C 23.765 -0.10 P23.765 /23.77P 46398 x400											
Le 16 Feb d Vol 3,583,100 O 24.20P H 24.42P B 23.755P Val 85.82M											
STLAP FP Equity % Actions % Exporter % Options											
Stellantis NV IFRS 16 Période 10 Année Dev FRC (EUR)											
1) Stats clés 2) Cpte rés 3) Bilan 4) C/F 5) Ratios 6) Segments 7) Autres 8) ESG 9) Personnalisé											
10) Résumé 11) Environnement 12) Responsabilité sociale 13) Gouvernance 14) Rémun excé et admin 15) Ratios ESG 16) CDP 17) Taxonomie UE											
En millions de EUR sauf Par action											
12 mois se terminant											
	2013 Y	2014 Y	2015 Y	2016 Y	2017 Y	2018 Y	2019 Y	2020 Y	2021 Y	2022 Y	
	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	
ESG Financial Materiality Scores											
BESG ESG Score			2.75	2.53	2.53	2.90	3.18	4.10	5.52	4.79	
Score du pilier Environnement BESG			2.08	2.09	2.20	2.25	2.24	2.75	5.84	6.08	
Score du pilier Société BESG			2.02	1.38	1.40	2.39	2.22	4.41	4.71	1.70	
Score du pilier Gouvernance BESG			4.97	4.87	4.58	4.74	6.33	6.43	5.85	6.55	
ESG Disclosure Scores											
Score de divulgation ESG	51.71	61.25	71.59	72.72	72.72	73.19	73.19	74.48	73.58	70.97	
Score de divulgation Environnement	50.05	59.68	64.30	67.68	67.68	69.10	69.10	71.40	69.68	71.10	
Score de divulgation Société	41.02	39.45	54.26	54.26	54.26	54.26	54.26	55.83	54.87	44.89	
Score de divulgation Gouvernance	64.00	84.53	96.12	96.12	96.12	96.12	96.12	96.12	96.12	96.81	
Environnement											
Qualité de l'air											
Emissions d'oxydes d'azote	1.4	1.4	1.4	1.3	1.4	1.3	1.2	1.0	1.5	1.3	
Emissions COV		15.1	14.4	14.6	14.9	14.1	12.4	9.5	16.0	15.6	
Emissions de particules	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Emissions de dioxyde de soufre / ox...	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
Changement climatique											
Initiatives en matière de réduction ...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique en matière de changement ...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Opportunités concernant le changem...	Non	Non	Non	Non	Non	Non	Non	Non	Non	Non	
Risques liés au changement climatiq...	Non	Non	Non	Non	Non	Non	Non	Non	Oui	Oui	
Emissions SAO			0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
GES Scope 1	1,198.2	1,203.3	1,121.5	1,039.1	1,101.3	1,129.3	1,058.4	877.6	1,641.0	1,526.8	
GES Scope 2 selon le lieu	2,980.1	3,079.3	2,962.1	2,860.1	2,713.8	2,796.0	2,296.7	1,983.9	2,233.5	1,916.4	
GES Scope 2 selon le marché						2,470.1	2,359.1	2,035.6	2,200.0	1,900.0	
GES Scope 3	208.9	239.5	1,528.7	1,536.8	1,550.6	1,588.0	1,491.0	1,296.0	523,305.0	447,230.0	
Etendue de divulgation										2.00	
Carbon per Unit of Production			0.47	0.46	0.41	0.45	0.45	0.53	0.66	0.60	
Impacts écologiques et biodiversité											
Politique de biodiversité	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Nombre d'amendes pour pollution en...		4									
Montant d'amendes pour pollution e...		0.1									
Energie											
Politique en matière d'efficacité éne...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Consommation d'énergie totale	13,422.9	13,512.5	13,456.8	13,181.4	13,391.0	12,595.9	11,618.8	9,882.0	16,058.2	15,494.9	

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	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	
Environnement											
Qualité de l'air											
Emissions d'oxydes d'azote	1.4	1.4	1.4	1.3	1.4	1.3	1.2	1.0	1.5	1.3	
Emissions COV		15.1	14.4	14.6	14.9	14.1	12.4	9.5	16.0	15.6	
Emissions de particules	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Emissions de dioxyde de soufre / ox...	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
Changement climatique											
Initiatives en matière de réduction ...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique en matière de changement ...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Opportunités concernant le changem...	Non	Non	Non	Non	Non	Non	Non	Non	Non	Non	
Risques liés au changement climatiq...	Non	Non	Non	Non	Non	Non	Non	Non	Oui	Oui	
Emissions SAO			0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
GES Scope 1	1,198.2	1,203.3	1,121.5	1,039.1	1,101.3	1,129.3	1,058.4	877.6	1,641.0	1,526.8	
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GES Scope 2 selon le marché						2,470.1	2,359.1	2,035.6	2,200.0	1,900.0	
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Carbon per Unit of Production			0.47	0.46	0.41	0.45	0.45	0.53	0.66	0.60	
Impacts écologiques et biodiversité											
Politique de biodiversité	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Nombre d'amendes pour pollution en...		4									
Montant d'amendes pour pollution e...		0.1									
Energie											
Politique en matière d'efficacité éne...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Consommation d'énergie totale	13,422.9	13,512.5	13,456.8	13,181.4	13,391.0	12,595.9	11,618.8	9,882.0	16,058.2	15,494.9	
Utilisation d'énergie renouvelable	1,302.4	1,209.3	1,303.5	1,598.6	1,769.7	819.8	816.8	694.5	2,957.0	3,537.7	
Electricité utilisée	5,909.0	6,004.2	6,039.4	6,126.8	6,153.3	5,333.5	4,922.1	4,212.1	6,488.1	6,404.7	
Combustible utilisé - Charbon/Lignite			30.9	19.7	26.6	33.4	32.0	22.8	21.4	20.5	
Combustible utilisé - Gaz naturel	567,140.0	575,340.0	533,827.0	506,220.0	529,346.0	539,398.0	506,542.0	421,690.0			
Combustible utilisé - Pétrole brut/di...			1.7	1.7	1.9	1.9	1.8	1.4	0.0	5.5	
Energy Per Unit of Production			1.65	1.65	1.56	1.69	1.69	1.89	2.80	2.70	
Matériaux et déchets											
Politique de réduction des déchets	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Déchets dangereux	39.1	37.8	36.2	32.0	31.9	24.1	23.3	10.3	63.7	55.6	
Total des déchets	1,890.1	1,744.3	1,478.2	1,385.0	982.0	875.2	806.4	635.9	305.5	302.9	

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Matériaux et déchets											
Politique de réduction des déchets	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Déchets dangereux	39.1	37.8	36.2	32.0	31.9	24.1	23.3	18.3	63.7	55.6	
Total des déchets	1,809.1	1,744.3	1,478.2	1,385.0	982.0	875.2	806.4	635.9	305.5	302.9	
Déchets recyclés	-	-	-	-	-	-	-	483.3	206.7	212.3	
Déchets envoyés à la décharge	438.7	295.4	220.2	179.7	230.4	238.9	205.4	138.9	37.2	34.7	
Chaîne logistique											
Gestion environnementale de la cha...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Eau											
Politique concernant l'eau	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Prélèvement d'eau total	24,936.0	24,653.0	24,929.0	24,431.0	24,115.0	21,651.0	18,816.0	15,751.0	27,540.0	26,661.0	
Total de l'eau évacuée	16,196.0	16,300.0	19,566.0	17,636.0	15,788.0	17,167.0	13,277.0	10,544.0	19,148.0	18,699.0	
Consommation d'eau	-	-	-	5,900.0	7,700.0	4,500.0	5,540.0	5,207.0	8,392.0	7,962.0	
Eau par unité de production	-	-	3,090.00	3,190.00	3,120.00	3,100.00	3,000.00	3,200.00	4,770.00	4,560.00	
Responsabilité sociale											
Communauté et clients											
Politique en matière des droits hum...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique contre le travail des enf...	Non	Non	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique d'assurance de la qualité e...	-	-	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique de protection des données ...	-	-	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Dépenses en faveur de la communau...	19.7	24.2	22.0	24.0	25.6	24.0	28.0	37.0	15.2	20.2	
Diversité											
Politique en matière d'égalité des c...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Gender Pay Gap Breakout	Non	Non	Non	Non	Non	Non	Non	Non	Oui	Oui	
% femmes à la direction	-	-	-	-	-	-	-	20.00	24.00	27.00	
% femmes à la direction (moyenne o...	13.10	13.20	13.10	14.10	14.90	16.70	16.60	16.90	-	-	
% femmes dans les effectifs	19.60	20.30	20.60	21.20	21.50	20.20	20.40	20.60	20.51	20.79	
% minorités dans les effectifs	2.70	-	-	-	-	-	-	-	-	-	
% handicapés dans les effectifs	-	-	-	-	-	-	-	-	-	3.26	
80%+ Workforce Gender Pay Gap Wate...	-	-	-	-	-	-	-	-	6.00	7.00	
Ethique et conformité											
Politique en matière d'éthique	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique en matière d'éthique anti-...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Contributions politiques	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	

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12 mois se terminant	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	
Ethique et conformité											
Politique en matière d'éthique	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique en matière d'éthique anti-...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Contributions politiques	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	
Santé et sécurité											
Politique en matière de santé et séc...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Mortalité - Employés	2	1	3	0	2	1	2	0	1	0	
Mortalité - Sous-traitants	1	4	-	-	-	-	-	-	-	-	
Mortalité - Total	3	5	-	-	-	-	-	-	-	-	
Taux d'heures perdues pour incident...	-	-	-	-	-	-	-	0.20	0.25	-	
Taux total d'incidents enregistrables...	0.38	0.30	0.24	0.20	0.18	0.14	0.12	0.11	0.76	0.75	
Capital humain											
Politique de formation	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Politique en matière de rémunératio...	Non	Non	Non	Non	Non	Non	Non	Non	Non	Oui	
Nb d'employés - CSR	225,587	228,690	234,621	231,019	235,915	198,545	191,752	298,879	281,595	272,367	
% employés qui ont quitté la société	11.59	12.28	12.29	14.16	13.09	10.96	14.53	12.52	7.40	7.70	
% employés syndiqués	90.00	90.00	85.00	83.00	85.30	83.50	84.00	84.00	87.00	89.00	
Coût de formation des salariés	76.0	65.6	61.0	65.0	54.0	40.0	34.0	25.0	141.0	197.0	
Total des heures investies par socié...	4,200,000.00	4,297,000.00	2,800,000.00	3,200,000.00	2,400,000.00	1,700,000.00	1,400,000.00	1,100,000.00	3,490,000.00	3,170,000.00	
Chaîne logistique											
Gestion sociale de la chaîne d'appro...	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Nombre de fournisseurs audités	-	-	-	-	-	-	-	-	-	2,974	
Nombre d'audits effectués chez le fo...	72	65	60	53	48	88	57	0	-	-	
Gouvernance											
Risque et surveillance d'audit											
Années d'emploi d'auditeur	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	1.00	2.00	
Taille du comité d'audit	-	3	4	4	4	4	4	4	3	3	
Nombre d'administrateurs indépenda...	-	2	4	4	4	4	4	4	3	3	
Réunions du comité d'audit	-	2	10	10	10	8	10	13	7	9	
Taux de participation à réunion du c...	-	100.00	96.00	100.00	100.00	100.00	100.00	98.00	100.00	77.78	
Composition du conseil											
Société procède à des évaluations d...	-	-	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	
Board Size	9	11	11	11	11	12	12	12	11	11	

Composition du conseil										
☒ Société procède à des évaluations d...	—	—	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui
☒ Board Size	9	11	11	11	11	12	12	12	11	11
☒ Nombre de dirigeants / Gestionnaire...	3	20	18	19	7	9	8	8	11	12
☒ Nombre de directeurs non exécutifs ...	6	9	9	9	9	10	9	9	9	9
☒ Nb de réunions du conseil par an	—	—	6	6	4	9	18	13	6	6
☒ % participation à la réunion du cons...	—	—	100,00	97,00	100,00	95,00	89,81	100,00	100,00	95,45
Rémunération										
☒ Société a des lignes directrices en ...	—	—	Non	Non	Non	Non	Non	Non	Non	Oui
☒ Lignes directrices en matière d'acti...	—	—	Non	Non	Non	Non	Non	Non	Non	Non
☒ Taille du comité de rémunération	—	3	3	3	3	3	3	3	3	5
☒ Nb d'administrateurs indépendants a...	—	3	3	3	3	3	3	3	3	3
☒ Nombre de réunions du comité de ré...	—	1	2	2	2	4	3	4	5	5
☒ Taux de participation aux réunions d...	—	67,00	100,00	100,00	100,00	100,00	88,89	100,00	100,00	100,00
Diversité										
☒ Nombre de femmes dirigeantes	0	1	1	1	1	1	0	0	0	0
☒ Nombre de femmes au conseil	2	3	3	3	3	3	2	2	3	3
☒ Age de l'administrateur le plus jeune	—	38	39	40	41	42	43	44	45	46
☒ Age de l'administrateur le plus âgé	—	73	74	75	72	73	71	72	71	72
Indépendance										
☒ Nb d'administrateurs indépendants	4	7	7	7	7	8	7	7	6	6
Surveillance de gouvernance et nomin...										
☒ Taille du comité de nomination	3	3	3	3	3	3	3	3	5	5
☒ Nb d'administrateurs indépendants a...	2	2	2	2	2	2	2	2	4	4
☒ Nombre de réunions du comité de no...	—	—	1	1	1	1	1	4	4	2
☒ Taux de participation aux réunions d...	—	—	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00
Gouvernance de la durabilité										
☒ Type de vérification	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui
☒ Formation des employés à CSR	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui	Oui
Mandat										
☒ Durée de mandat au conseil (années)	3	1	1	1	1	1	1	1	2	2
☒ Dépenses en faveur de la communau...	19,7	24,2	22,0	24,0	25,6	24,0	28,0	37,0	15,2	20,2

<< < > >> Résultats précédents: 02/15/24 | EVFS » Analyser résultats | MDOL »

Annexe 2 : Détail des scores ESG de Stellantis repris sur la plateforme Eikon Refinitiv

Resource Use (Weight 8.1%)	A	A	A+	A+	A+
Resource Reduction Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Water Efficiency	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Energy Efficiency	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Sustainable Packaging	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Environmental Supply Chain	TRUE	TRUE	TRUE	TRUE	TRUE
Resource Reduction Targets	FALSE	FALSE	FALSE	TRUE	TRUE
Targets Water Efficiency	FALSE	FALSE	FALSE	TRUE	TRUE
Targets Energy Efficiency	FALSE	FALSE	FALSE	TRUE	TRUE
Environment Management Team	TRUE	TRUE	TRUE	TRUE	TRUE
Environment Management Training	TRUE	TRUE	TRUE	TRUE	TRUE
Environmental Materials Sourcing	TRUE	TRUE	TRUE	TRUE	TRUE
Toxic Chemicals Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
Total Energy Use / Million in Revenue \$	290.23	340.34	336.07	344.83	358.09
Energy Use Total	55781600	57809600	35575019	41827609	45345387
Energy Purchased Direct	55760900	57809600	35575019	41827609	45345387
Energy Produced Direct	20718	--	--	--	--
Indirect Energy Use	--	--	--	--	--
Electricity Purchased	23057000	23357300	15163523	17119553	19200530
Electricity Produced	20718	--	--	--	--
Grid Loss Percentage	--	--	--	--	--
Renewable Energy Use Ratio	0.13%	0.11%	7.03%	7.03%	6.51%
Renewable Energy Supply	--	--	--	--	--
Total Renewable Energy To Energy Use in million	1667.78	1052.11	70281.96	70297.8	65084.42
Total Renewable Energy	93031.2	60822	2500282	2940389	2951278
Renewable Energy Purchased	72313.2	60822	2500282	2940389	2951278
Renewable Energy Produced	20718	--	--	--	--
Renewable Energy Use	TRUE	TRUE	TRUE	TRUE	TRUE
Cement Energy Use	--	--	--	--	--
Coal Produced (Raw Material in Tonnes), Total	--	--	--	--	--
Green Buildings	TRUE	TRUE	TRUE	TRUE	TRUE
Total Water Use / Million in Revenue \$	138.72	162.13	148.79	155.15	170.38
Water Withdrawal Total	26661000	27540000	15751000	18816000	21651000
Fresh Water Withdrawal Total	26661000	27540000	15742000	18814000	21478000
Water Recycled	--	--	1750284000	2201293000	2318700000
Environmental Supply Chain Management	TRUE	TRUE	TRUE	TRUE	TRUE
Environmental Supply Chain Monitoring	TRUE	TRUE	TRUE	TRUE	TRUE
Env Supply Chain Partnership Termination	TRUE	TRUE	TRUE	TRUE	TRUE
Land Environmental Impact Reduction	FALSE	FALSE	FALSE	FALSE	FALSE
Total Energy Use To EVIC USD in million	752.82	589.73	657.14	1106.52	1143.54
Water Use To EVIC USD in million	359.81	280.34	290.35	497.76	548.87
Electricity Purchased Per Tonne of Aluminum Production	--	--	--	--	--
Electricity Purchased Per Tonne of Chlorine Production	--	--	--	--	--
Emissions (Weight 9.7%)	A+	A+	A+	A+	A+
Policy Emissions	TRUE	TRUE	TRUE	TRUE	TRUE
Targets Emissions	TRUE	TRUE	FALSE	TRUE	TRUE
Emission Reduction Target Percentage	50.00%	50.00%	--	32.00%	32.00%
Emission Reduction Target Year	2025	2025	--	2020	2020
Electricity Emission Reduction	TRUE	TRUE	TRUE	TRUE	TRUE

Biodiversity Impact Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
Estimated CO2 Equivalents Emission Total	3443120	3874430	2914000	3417000	3738000
CO2 Estimation Method	Reported	Reported	Reported	Reported	Reported
Total CO2 Emissions / Million in Revenue \$	17.91	22.81	21.53	28.18	29.52
CO2 Equivalent Emissions Total	3443120	3874430	2914000	3417000	3738000
CO2 Equivalent Emissions Direct, Scope 1	1526770	1641030	878000	1058000	1129000
CO2 Equivalent Emissions Indirect, Scope 2	1916360	2233460	2036000	2359000	2609000
CO2 Equivalent Emissions Indirect, Scope 3 To Revenues USD in million	2326.91	3080.8	12.24	12.29	12.54
CO2 Equivalent Emissions Indirect, Scope 3	447230000	523305000	1296000	1491000	1588000
Carbon Offsets/Credits	--	--	--	--	--
Emissions Trading	FALSE	FALSE	FALSE	FALSE	FALSE
Cement CO2 Equivalents Emission	--	--	--	--	--
Climate Change Commercial Risks Opportunities	TRUE	TRUE	TRUE	TRUE	TRUE
Flaring Gases To Revenues USD in million	--	--	--	--	--
Flaring Gases	--	--	--	--	--
Ozone-Depleting Substances To Revenues USD in million	0	0	0	0	0
Ozone-Depleting Substances	0.05	0.04	3.3	2.6	3.8
NOx and SOx Emissions Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
NOx Emissions To Revenues USD in million	0.01	0.01	0.01	0.01	0.01
NOx Emissions	1346.08	1463.48	974	1170	1263
SOx Emissions To Revenues USD in million	0	0	0	0	0
SOx Emissions	218.28	110.15	89	124	130
VOC or Particulate Matter Emissions Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
VOC Emissions Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
Particulate Matter Emissions Reduction	TRUE	TRUE	FALSE	FALSE	FALSE
VOC Emissions To Revenues USD in million	0.08	0.09	0.09	0.1	0.11
VOC Emissions	15638	16031	9456	12406	14075
Total Waste / Million in Revenue \$	1.58	1.8	6.01	6.65	6.31
Waste Recycled To Total Waste	70.11%	67.65%	77.63%	73.77%	71.61%
Total Hazardous Waste / Million in Revenue \$	0.29	0.37	0.17	0.19	0.19
Waste Total	302858	305468	635874	806396	875170
Non-Hazardous Waste	247255	241775	617620	783141	851072
Waste Recycled Total	212333	206656	493629	594880	626736
Waste Recycling Ratio	70.11%	67.65%	77.63%	73.77%	71.61%
Hazardous Waste	55603	63693	18254	23256	24099
Waste Reduction Initiatives	TRUE	TRUE	TRUE	TRUE	TRUE
e-Waste Reduction	FALSE	FALSE	FALSE	FALSE	FALSE
Total Water Pollutant Emissions / Million in Revenue \$	--	--	--	--	--
Water Discharged	18693000	19148000	10544000	13277000	17167000
Water Pollutant Emissions	--	--	--	--	--
ISO 14000 or EMS	BOTH	BOTH	BOTH	BOTH	BOTH
EMS Certified Percent	92.00%	93.00%	100.00%	100.00%	100.00%
Environmental Restoration Initiatives	TRUE	TRUE	TRUE	TRUE	TRUE
Staff Transportation Impact Reduction	TRUE	TRUE	FALSE	FALSE	FALSE
Accidental Spills To Revenues USD in million	--	--	--	--	--
Accidental Spills	--	--	--	--	--
Environmental Expenditures Investments	TRUE	TRUE	TRUE	TRUE	TRUE
Environmental Expenditures	--	--	193,000,000.00	194,000,000.00	177,000,000.00
Environmental Provisions	--	--	--	--	--

Environmental Provisions	--	--	--	--	--
Environmental Investments Initiatives	TRUE	TRUE	TRUE	TRUE	TRUE
Self-Reported Environmental Fines To Revenues in million	--	--	--	--	--
Self-Reported Environmental Fines	--	--	--	--	--
Environmental Partnerships	TRUE	TRUE	TRUE	TRUE	TRUE
Internal Carbon Pricing	FALSE	FALSE	FALSE	FALSE	FALSE
Internal Carbon Price per Tonne	--	--	--	--	--
Policy Nuclear Safety	FALSE	FALSE	FALSE	FALSE	--
Emissions Target Type	Absolute	Absolute	--	--	--
GHG Emission Method	GHG Protocol	GHG Protocol	--	--	--
Emissions Target Annual Reduction	--	--	--	--	--
Fleet Co2 per Passenger Kilometer	--	--	--	--	--
Carbon Intensity per Energy Produced	--	--	--	--	--
Carbon Intensity per Clinker Produced	--	--	--	--	--
Upstream scope 3 emissions Purchased goods and services	38800000	43500000	--	--	--
Upstream scope 3 emissions Capital goods	--	--	--	--	--
Upstream scope 3 emissions Fuel- and Energy-related Activities	--	--	--	--	--
Upstream scope 3 emissions Transportation and Distribution	1400000	1200000	--	--	--
Upstream scope 3 emissions Waste Generated in Operations	--	--	--	--	--
Upstream scope 3 emissions Business Travel	30000	5000	--	--	--
Upstream scope 3 emissions Employee Commuting	--	--	--	--	--
Upstream scope 3 emissions Leased Assets	--	--	--	--	--
Downstream scope 3 emissions Transportation and Distribution	1100000	1200000	--	--	--
Downstream scope 3 emissions Processing of Sold Products	--	--	--	--	--
Downstream scope 3 emissions Use of Sold Products	403900000	475100000	--	--	--
Downstream scope 3 emissions End-of-life Treatment of Sold Products	2000000	2300000	--	--	--
Downstream scope 3 emissions Leased Assets	--	--	--	--	--
Downstream scope 3 emissions Franchises	--	--	--	--	--
Downstream scope 3 emissions Investments	--	--	--	--	--
Upstream scope 3 emissions Other	--	--	--	--	--
Downstream scope 3 emissions Other	--	--	--	--	--
Climate Related Risks Assessment Process	TRUE	FALSE	FALSE	FALSE	FALSE
Transition Plan Financial Planning	FALSE	FALSE	FALSE	FALSE	FALSE
Transition Plan Scope 3 Emissions	FALSE	FALSE	FALSE	FALSE	FALSE
Transition Plan Time Horizon Coverage	TRUE	TRUE	FALSE	FALSE	FALSE
Transition Plan Offsets	TRUE	FALSE	FALSE	FALSE	FALSE
Financial Exposure To Transition Risk	TRUE	TRUE	FALSE	FALSE	FALSE
Financial Exposure To Physical Risk	TRUE	TRUE	FALSE	FALSE	FALSE
Portfolio Alignment	FALSE	FALSE	FALSE	FALSE	FALSE
Total CO2 Equivalent Emissions To EVIC USD in million	46.47	39.52	53.83	30.33	34.76
Total Waste To EVIC USD in million	4.03	3.12	11.75	21.33	22.19
Total Hazardous Waste To EVIC USD in million	0.75	0.65	0.34	0.62	0.61
Water Pollutant Emissions To EVIC USD in million	--	--	--	--	--
Flaring Gases To EVIC USD in million	--	--	--	--	--
Ozone-Depleting Substances To EVIC USD in million	0	0	0	0	0
NOx Emissions To EVIC USD in million	0.02	0.01	0.02	0.03	0.03
SOx Emissions To EVIC USD in million	0	0	0	0	0
VOC Emissions To EVIC USD in million	0.21	0.16	0.17	0.33	0.36
Accidental Spills To EVIC USD in million	--	--	--	--	--

Innovation (Weight 16.2%)	A+	A+	A+	A+	A+
Environmental Products	TRUE	TRUE	TRUE	TRUE	TRUE
Eco-Design Products	TRUE	TRUE	TRUE	TRUE	TRUE
Revenue from Environmental Products	--	--	--	--	--
Percentage of Green Products	--	--	--	--	--
Total Env R&D / Million in Revenue	--	--	--	--	--
Environmental R&D Expenditures	--	--	--	--	--
Noise Reduction	TRUE	TRUE	TRUE	TRUE	TRUE
Fleet Fuel Consumption	--	--	7.63	7.3	7.63
Hybrid Vehicles	TRUE	TRUE	TRUE	TRUE	TRUE
Fleet CO2 Emissions	136.75	151.9	89	124.8	124.4
Environmental Assets Under Mgt	FALSE	FALSE	FALSE	FALSE	FALSE
ESG Assets Under Management	--	--	--	--	--
Equator Principles	FALSE	FALSE	FALSE	FALSE	FALSE
Equator Principles or Env Project Financing	--	--	--	--	--
Environmental Project Financing	FALSE	FALSE	FALSE	FALSE	FALSE
Nuclear	FALSE	FALSE	FALSE	FALSE	FALSE
Nuclear Production	--	--	--	--	--
Labeled Wood Percentage	--	--	--	--	--
Labeled Wood	FALSE	FALSE	FALSE	FALSE	FALSE
Organic Products Initiatives	FALSE	FALSE	FALSE	FALSE	FALSE
Product Impact Minimization	TRUE	TRUE	TRUE	TRUE	TRUE
Take-back and Recycling Initiatives	TRUE	TRUE	TRUE	TRUE	TRUE
Products Recovered to Recycle	--	--	--	--	--
Product Environmental Responsible Use	TRUE	TRUE	TRUE	TRUE	TRUE
GMO Products	FALSE	FALSE	FALSE	FALSE	FALSE
Agrochemical Products	--	--	--	--	--
Agrochemical 5 % Revenue	FALSE	FALSE	FALSE	FALSE	FALSE
Animal Testing	FALSE	FALSE	FALSE	FALSE	FALSE
Animal Testing Cosmetics	FALSE	FALSE	FALSE	FALSE	FALSE
Animal Testing Reduction	FALSE	FALSE	FALSE	FALSE	FALSE
Renewable/Clean Energy Products	TRUE	TRUE	TRUE	TRUE	TRUE
Water Technologies	FALSE	FALSE	FALSE	FALSE	FALSE
Sustainable Building Products	FALSE	FALSE	FALSE	FALSE	FALSE
Real Estate Sustainability Certifications	--	--	--	--	--
Fossil Fuel Divestment Policy	FALSE	FALSE	FALSE	FALSE	FALSE
Fossil Fuel Divestment Target Year	--	--	--	--	--
Green Capex	FALSE	FALSE	FALSE	FALSE	FALSE
Green Capex Target	FALSE	FALSE	FALSE	FALSE	FALSE
Green Revenues Target	FALSE	FALSE	FALSE	FALSE	FALSE

Workforce (Weight 10.1%)	A-	A-	A-	A-	A-
Health & Safety Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Employee Health & Safety	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Supply Chain Health & Safety	TRUE	TRUE	TRUE	TRUE	TRUE
Training and Development Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Skills Training	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Career Development	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Diversity and Opportunity	TRUE	TRUE	TRUE	TRUE	TRUE
Targets Diversity and Opportunity	TRUE	TRUE	FALSE	TRUE	TRUE
Employees Health & Safety Team	TRUE	TRUE	TRUE	TRUE	TRUE
Health & Safety Training	TRUE	TRUE	TRUE	TRUE	TRUE
Supply Chain Health & Safety Training	TRUE	TRUE	TRUE	TRUE	TRUE
Supply Chain Health & Safety Improvements	FALSE	FALSE	FALSE	FALSE	FALSE
Employees Health & Safety OHSAS 18001	TRUE	TRUE	TRUE	TRUE	TRUE
HSMS Certified Percent	85.00%	95.00%	97.00%	95.00%	96.00%
Employee Satisfaction	83.00%	--	--	--	--
Salary Gap	351	315	216	223	--
Salaries and Wages from CSR reporting	--	17,180,600,000.00	--	--	--
Net Employment Creation	-3.28%	48.53%	-1.17%	-3.42%	1.04%
Number of Employees from CSR reporting	263932	281595	189512	191752	198545
Trade Union Representation	89.00%	91.50%	87.10%	87.30%	88.80%
Average Employee Length of Service	--	--	--	--	--
Turnover of Employees	7.70%	7.40%	12.52%	14.53%	10.97%
Voluntary Turnover of Employees	--	--	--	--	--
Involuntary Turnover of Employees	--	--	--	--	--
Announced Layoffs To Total Employees	0.48%	0.00%	0.00%	0.00%	0.00%
Announced Layoffs	1350	--	--	--	--
Gender Pay Gap Percentage	--	--	--	--	--
Women Employees	20.79%	20.51%	20.60%	20.40%	20.20%
New Women Employees	30.25%	31.84%	32.53%	21.60%	24.14%
Women Managers	27.00%	24.00%	16.90%	16.60%	16.70%
HRC Corporate Equality Index	95	90	90	90	100
Flexible Working Hours	TRUE	TRUE	TRUE	TRUE	TRUE
Day Care Services	TRUE	TRUE	TRUE	TRUE	TRUE
Employees With Disabilities	3.37%	4.04%	3.70%	3.70%	--
Employee Health & Safety Training Hours	350717	363410	--	--	--
Injuries To Million Hours	3.19	3.28	--	--	--
Total Injury Rate Total	3.19	3.28	--	--	--
Total Injury Rate Contractors	--	--	--	--	--
Total Injury Rate Employees	3.19	3.28	--	--	--
Accidents Total	1682	1849	--	--	--
Contractor Accidents	--	--	--	--	--

Human Rights (Weight 14.6%)	A	A	A+	A+	A+
Human Rights Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Freedom of Association	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Child Labor	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Forced Labor	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Human Rights	TRUE	TRUE	TRUE	TRUE	TRUE
Fundamental Human Rights ILO UN	TRUE	TRUE	TRUE	TRUE	TRUE
Human Rights Contractor	TRUE	TRUE	TRUE	TRUE	TRUE
Ethical Trading Initiative ETI	FALSE	FALSE	FALSE	FALSE	FALSE
Human Rights Breaches Contractor	TRUE	TRUE	TRUE	TRUE	TRUE
Community (Weight 8.1%)	A+	A+	A+	A+	A+
Policy Fair Competition	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Bribery and Corruption	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Business Ethics	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Community Involvement	TRUE	TRUE	TRUE	TRUE	TRUE
Improvement Tools Business Ethics	TRUE	TRUE	TRUE	TRUE	TRUE
Whistleblower Protection	TRUE	TRUE	TRUE	TRUE	TRUE
OECD Guidelines for Multinational Enterprises	TRUE	TRUE	TRUE	TRUE	TRUE
Extractive Industries Transparency Initiative	FALSE	FALSE	FALSE	FALSE	FALSE
Donations / Million in Revenue	109.63	96.37	438.11	258.81	217.37
Donations Total	119,700,000.00	114,400,000.00	137,800,000.00	128,000,000.00	124,000,000.00
Community Lending and Investments	--	--	--	--	--
Political Contributions	10.00	10.00	10.00	10.00	10.00
Lobbying Contribution Amount	--	--	--	--	11,200,000.00
Employee Engagement Voluntary Work	TRUE	TRUE	TRUE	TRUE	TRUE
Corporate Responsibility Awards	TRUE	TRUE	TRUE	TRUE	TRUE
Product Sales at Discount to Emerging Markets	FALSE	FALSE	FALSE	FALSE	FALSE
Diseases of the Developing World	FALSE	FALSE	FALSE	FALSE	FALSE
Crisis Management Systems	TRUE	TRUE	TRUE	TRUE	TRUE
Critical Country 1	--	--	--	--	--
Critical Country 2	--	--	--	--	--
Critical Country 3	--	--	--	--	--
Critical Country 4	--	--	--	--	--
Critical Country 5	--	--	--	--	--
Product Responsibility (Weight 8.7%)	A-	A+	A	A+	A+
Policy Customer Health & Safety	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Data Privacy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Cyber Security	TRUE	TRUE	TRUE	TRUE	FALSE
Policy Responsible Marketing	FALSE	FALSE	FALSE	FALSE	FALSE
Policy Fair Trade	FALSE	FALSE	FALSE	FALSE	FALSE
Product Responsibility Monitoring	FALSE	FALSE	FALSE	FALSE	FALSE
Quality Mgt Systems	TRUE	TRUE	TRUE	TRUE	TRUE

Management (Weight 16.23)	B	B+	B+	B+	A
Board Functions Policy	FALSE	FALSE	FALSE	FALSE	FALSE
Corporate Governance Board Committee	TRUE	TRUE	TRUE	TRUE	TRUE
Nomination Board Committee	FALSE	FALSE	FALSE	FALSE	FALSE
Audit Board Committee	TRUE	TRUE	TRUE	TRUE	TRUE
Compensation Board Committee	TRUE	TRUE	TRUE	TRUE	TRUE
Board Structure Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Board Size	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Board Independence	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Board Diversity	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Board Experience	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Executive Compensation Performance	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Executive Compensation ESG Performance	TRUE	TRUE	FALSE	FALSE	FALSE
Policy Executive Retention	TRUE	TRUE	TRUE	TRUE	TRUE
Compensation Improvement Tools	TRUE	TRUE	TRUE	TRUE	TRUE
Internal Audit Department Reporting	TRUE	TRUE	TRUE	TRUE	TRUE
Succession Plan	TRUE	TRUE	TRUE	TRUE	TRUE
External Consultants	TRUE	TRUE	TRUE	TRUE	TRUE
Audit Committee Independence	100.00%	100.00%	100.00%	100.00%	100.00%
Audit Committee Mgt Independence	TRUE	TRUE	TRUE	TRUE	TRUE
Audit Committee Expertise	TRUE	TRUE	TRUE	TRUE	TRUE
Audit Committee NonExecutive Members	100.00%	100.00%	100.00%	100.00%	100.00%
Compensation Committee Independence	75.00%	75.00%	75.00%	75.00%	75.00%
Compensation Committee Mgt Independence	TRUE	TRUE	TRUE	TRUE	TRUE
Compensation Committee NonExecutive Members	100.00%	100.00%	100.00%	100.00%	100.00%
Nomination Committee Independence	--	--	--	--	--
Nomination Committee Mgt Independence	FALSE	FALSE	FALSE	FALSE	FALSE
Nomination Committee Involvement	--	--	--	--	--
Nomination Committee NonExecutive Members	--	--	--	--	--
Board Attendance	TRUE	FALSE	TRUE	TRUE	TRUE
Number of Board Meetings	6	6	13	18	9
Board Meeting Attendance Average	35.45%	100.00%	100.00%	88.94%	95.24%
Committee Meetings Attendance Average	88.70%	100.00%	98.86%	98.08%	100.00%
Board Structure Type	Unitary	Unitary	Unitary	Unitary	Unitary
Board Size More Ten Less Eight	1	1	1	1	2
Board Size	11	11	11	11	12
Board Background and Skills	TRUE	TRUE	TRUE	TRUE	TRUE
Board Gender Diversity, Percent	27.27%	27.27%	18.18%	18.18%	25.00%
Board Specific Skills, Percent	45.45%	45.00%	45.45%	33.33%	23.08%
Average Board Tenure	5.58 Yrs	5.93 Yrs	8.95 Yrs	7.73 Yrs	7.42 Yrs
Non-Executive Board Members	61.82%	85.00%	61.82%	83.33%	76.92%
Independent Board Members	54.55%	65.00%	63.64%	66.67%	61.54%
Strictly Independent Board Members	45.45%	--	--	--	61.54%
CEO Chairman Duality	FALSE	FALSE	FALSE	FALSE	FALSE
CEO Board Member	TRUE	TRUE	TRUE	TRUE	TRUE
Chairman is ex-CEO	FALSE	FALSE	FALSE	FALSE	FALSE
Board Member Affiliations	1.73	1.05	0.64	0.58	0.54
Board Individual Re-election	TRUE	TRUE	TRUE	TRUE	TRUE
Board Member Membership Limits	No Limit	No Limit	No Limit	No Limit	No Limit
Board Member Term Duration	1	1	1	1	1
Executive Compensation Policy	TRUE	TRUE	TRUE	TRUE	TRUE

Current CEO Chairman Duality	TRUE	FALSE	TRUE	FALSE	TRUE
Shareholders (Weight 4.3%)	A+	C+	B-	B+	C+
Shareholder Rights Policy	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Equal Voting Right	TRUE	TRUE	TRUE	TRUE	TRUE
Policy Shareholder Engagement	FALSE	FALSE	FALSE	FALSE	FALSE
Different Voting Right Share	FALSE	FALSE	FALSE	FALSE	FALSE
Equal Shareholder Rights	TRUE	TRUE	TRUE	TRUE	TRUE
Voting Cap	FALSE	FALSE	FALSE	FALSE	FALSE
Voting Cap Percentage	100.00%	100.00%	100.00%	100.00%	100.00%
Minimum Number of Shares to Vote	FALSE	FALSE	FALSE	FALSE	FALSE
Director Election Majority Requirement	TRUE	TRUE	TRUE	TRUE	FALSE
Shareholders Vote on Executive Pay	TRUE	TRUE	TRUE	TRUE	TRUE
Public Availability Corporate Statutes	TRUE	TRUE	TRUE	TRUE	TRUE
Veto Power or Golden share	FALSE	FALSE	FALSE	FALSE	FALSE
State Owned Enterprise SOE	FALSE	FALSE	FALSE	FALSE	FALSE
Anti Takeover Devices Above Two	5	5	4	4	4
Poison Pill	--	--	--	--	--
Poison Pill Adoption Date	--	--	--	--	--
Poison Pill Expiration Date	--	--	--	--	--
Unlimited Authorized Capital or Blank Check	FALSE	FALSE	FALSE	FALSE	FALSE
Classified Board Structure	FALSE	FALSE	FALSE	FALSE	FALSE
Staggered Board Structure	FALSE	FALSE	FALSE	FALSE	FALSE
Supermajority Vote Requirement	TRUE	TRUE	TRUE	TRUE	TRUE
Golden Parachute	FALSE	FALSE	FALSE	FALSE	FALSE
Limited Shareholder Rights to Call Meetings	TRUE	TRUE	TRUE	TRUE	TRUE
Elimination of Cumulative Voting Rights	--	--	--	--	--
Pre-emptive Rights	FALSE	FALSE	FALSE	FALSE	FALSE
Company Cross Shareholding	--	--	--	--	--
Confidential Voting Policy	FALSE	FALSE	FALSE	FALSE	FALSE
Limitation of Director Liability	TRUE	TRUE	TRUE	TRUE	TRUE
Shareholder Approval Significant Transactions	TRUE	TRUE	TRUE	TRUE	TRUE
Fair Price Provision	--	--	--	--	--
Limitations on Removal of Directors	TRUE	TRUE	--	--	--
Advance Notice for Shareholder Proposals	TRUE	TRUE	TRUE	TRUE	TRUE
Advance Notice Period Days	60	60	60	60	60
Written Consent Requirements	--	--	--	--	--
Expanded Constituency Provision	--	--	--	--	--
Litigation Expenses To Revenues in million	27.84	--	8675.39	4390.55	6774.63
Litigation Expenses	15,000,000.00	--	1752,000,000.00	1475,000,000.00	1748,000,000.00
Non-audit to Audit Fees Ratio	0.00%	0.83%	2.52%	0.32%	1.85%
Auditor Tenure	3	8	7	6	5
Enterprise Value including Cash and ST Investments in USD	74097200000	38026800000	54135727366	37801072067	33446400535
Exchange Rate to USD	1	1	1	1	1
Sales in USD	1.92199E+11	1.6386E+11	1.05857E+11	1.21278E+11	1.26632E+11
CSR Strategy (Weight 3.2%)	A-	A-	A-	A-	A-
CSR Sustainability Committee	TRUE	TRUE	TRUE	TRUE	TRUE
Integrated Strategy in MD&A	FALSE	FALSE	FALSE	--	--
Global Compact Signatory	TRUE	TRUE	TRUE	TRUE	TRUE
Stakeholder Engagement	TRUE	TRUE	TRUE	TRUE	TRUE

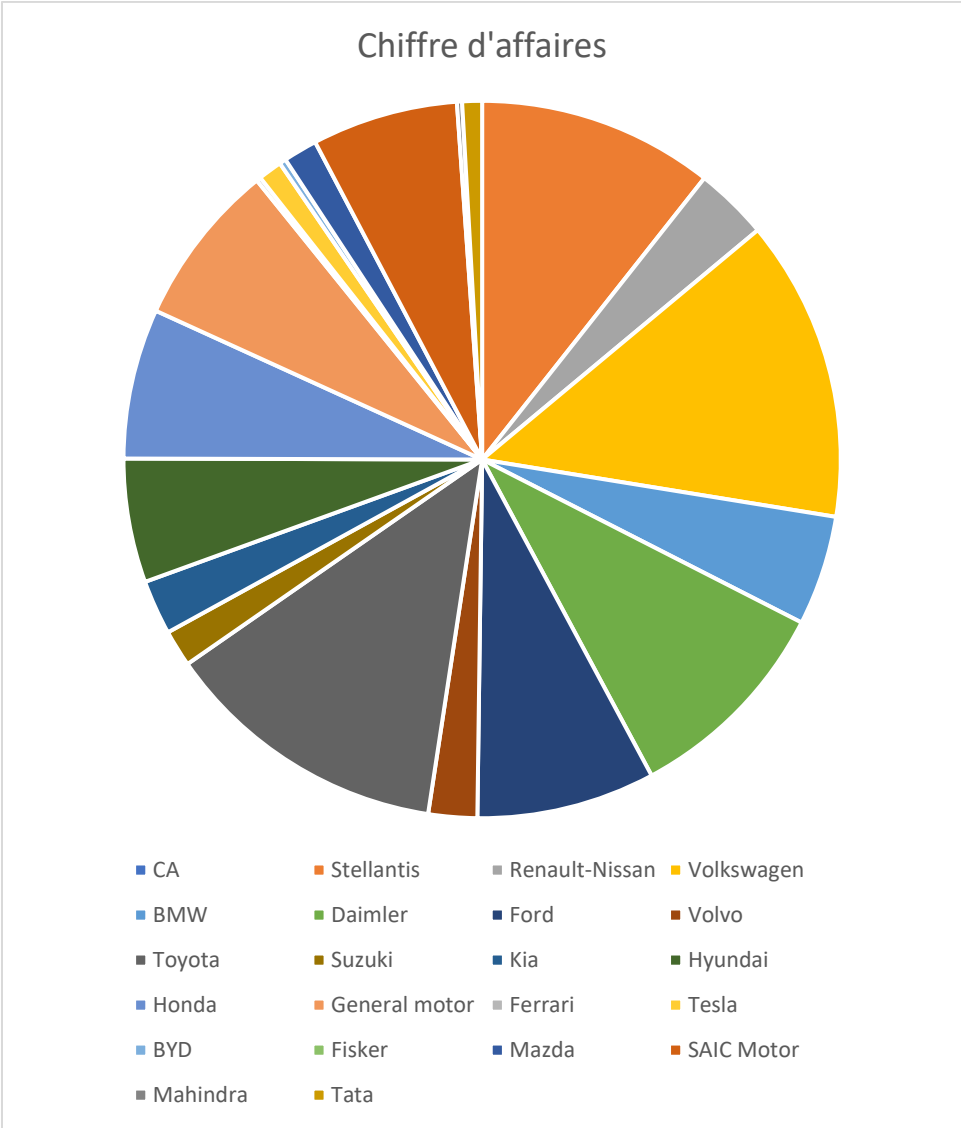
Annexe 3 : Légende conversion des scores ESG venant de la plateforme Eikon Refinitiv

Légende	
D-	0
D	0.08333
D+	0.16667
C-	0.25
C	0.33333
C+	0.41667
B-	0.5
B	0.58333
B+	0.66667
A-	0.75
A	0.83333
A+	0.91667

Annexe 4 : Chiffres d'affaires des entreprises étudiées

CA	2018	2019	2020	2021	2022	
Stellantis	184,439,000,000.00	182,918,000,000.00	134,332,000,000.00	149,419,000,000.00	179,592,000,000.00	2021 Fusion de PSA et FCA
Renault-Nissan	57,419,000,000.00	55,537,000,000.00	43,474,000,000.00	46,213,000,000.00	46,391,000,000.00	
Volkswagen	235,849,000,000.00	252,632,000,000.00	222,884,000,000.00	250,200,000,000.00	279,232,000,000.00	
BMW	85,846,000,000.00	104,210,000,000.00	98,990,000,000.00	111,239,000,000.00	142,610,000,000.00	
Daimler	167,362,000,000.00	172,745,000,000.00	121,778,000,000.00	133,893,000,000.00	150,017,000,000.00	
Ford	139,521,406,195.61	127,786,885,245.90	94,376,221,000.00	111,400,565,000.00	139,653,767,000.00	
Volvo	37,183,331,747.69	42,078,706,409.51	33,659,473,000.00	36,228,681,000.00	42,499,933,000.00	
Toyota	224,219,644,356.25	242,639,479,810.55	251,931,674,398.99	209,519,593,502.19	232,751,075,508.09	
Suzuki	28,674,494,390.60	31,078,879,344.95	29,425,837,199.49	24,468,465,624.76	26,467,734,757.45	
Kia	42,667,506,576.98	44,879,214,424.09	44,615,433,802.35	51,664,558,544.03	63,984,143,492.85	
Hyundai	96,812,609,000.00	105,746,422,000.00	103,997,601,000.00	117,610,626,000.00	142,527,535,000.00	
Honda	117,233,809,051.36	127,547,700,088.30	125,946,933,783.21	101,397,482,485.18	107,941,670,375.32	
General motor	127,957,709,711.10	112,489,344,262.30	100,266,044,531.76	111,661,684,543.70	146,208,022,388.06	
Ferrari	3,420,321,000.00	3,766,615,000.00	3,459,790,000.00	4,270,894,000.00	5,095,254,000.00	
Tesla	18,674,730,247.13	20,145,901,639.34	25,680,782,000.00	47,530,025,000.00	76,311,722,000.00	
BYD	5,192,882,408.75	6,787,371,492.93	9,163,041,979.95	12,319,064,073.48	14,493,839,059.94	
Fisker				93,195.01	319,029.85	
Mazda	26,513,195,451.42	28,611,800,594.04	28,935,343,736.82	22,188,513,357.46	23,144,555,703.90	
SAIC Motor	114,136,765,732.46	107,941,374,741.10	92,999,053,931.17	107,874,424,057.10	100,612,941,095.57	
Mahindra	4,001,560,319.04	5,287,129,482.85	3,469,826,288.99	3,027,374,809.26	4,403,014,441.72	
Tata	15,467,309,322.03	23,579,844,764.16	16,831,387,160.07	18,227,049,820.03	29,021,337,822.08	

Annexe 5 : Part de marché des entreprises étudiées



Annexe 6 : Analyse de la diminution du score de performance sociale entre 2020 et 2022 (Bloomberg)

	2020	2021	2022
	S	S	S
Stellantis	4.41	4.71	1.7
Renault-N	3.57	4.24	3.85
Volkswage	3.6	3.85	3.23
BMW	4.03	5.03	4.48
Daimler	2.5	1.92	3.19
Ford	5.88	5.85	5.18
Volvo	3.17	3.36	3.4
Toyota	5.69	5.73	6.29
Suzuki	2.05	2.05	2.05
Kia	5.99	6.04	6.14
Hyundai	5.69	5.78	5.58
Honda	3.37	3.08	3.24
General m	6.53	4.96	6.66
Ferrari	4.2	4.47	4.28
Tesla	5.24	4.99	5.63
BYD	2.3	3.47	3.82
Fisker		1.12	1.12
Mazda	5.59	5.21	5.17
SAIC Moto	4.8	3.96	4.07
Mahindra	0.73	0.76	0.78
Tata	3.68	3.68	3.68
Moyennes	4.151	4.012	3.978

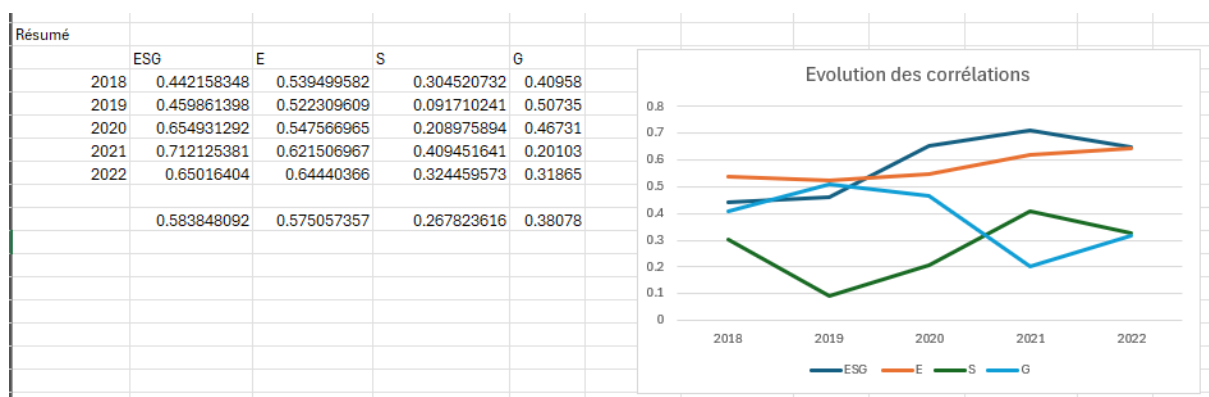
Annexe 7 : Analyse de la diminution du score de performance de gouvernance entre 2021 et 2022 (Bloomberg)

	2021	2022
	G	G
Stellantis	5.85	6.55
Renault-N	6.43	6.03
Volkswage	5.56	5.69
BMW	6.77	6.83
Daimler	6.57	6.19
Ford	6.34	6.16
Volvo	6.4	5.97
Toyota	5.61	5.56
Suzuki	5.76	6.04
Kia	5.25	5.27
Hyundai	5	4.65
Honda	7.19	6.93
General m	8.36	8.31
Ferrari	6.25	6.27
Tesla	5.47	6.29
BYD	7.06	4.66
Fisker	6.17	6.16
Mazda	4.55	4.73
SAIC Moto	5.23	5.04
Mahindra	5.73	5.31
Tata	4.92	5.05
Moyennes	6.022	5.890

Annexe 8 : Analyse de la variation du score de ESG Eikon Refinitiv

	2022	2021	2020	2019	2018	
Stellantis	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	A	A	A	A	A+
Renault-Nissan	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	A	A	A-	A-	A-
Volkswagen	ESG Reporting Scope	87.40%	87.50%	100%	100%	95.12%
	ESG Score (Weight 100.0%)	A-	A-	A	A	A-
BMW	ESG Reporting Scope	58.33%	70.06%	70.13%	68.80%	66.71%
	ESG Score (Weight 100.0%)	A	A	A-	A	A
Daimler	ESG Reporting Scope	100%	100%	100%	62.91%	100%
	ESG Score (Weight 100.0%)	A+	A+	A+	A+	A+
Ford	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	B+	A-	A-	A-	A-
Volvo	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	A	A	A+	A	A
Toyota	ESG Reporting Scope	18.97%	19.49%	20.64%	20.09%	20.15%
	ESG Score (Weight 100.0%)	A-	A-	A	A-	A-
Suzuki	ESG Reporting Scope	23.51%	23.38%	22.84%	22.79%	23.43%
	ESG Score (Weight 100.0%)	B-	B	B	B	B-
Kia	ESG Reporting Scope	67.80%	36.39%	36.96%	36.12%	38.48%
	ESG Score (Weight 100.0%)	A-	A-	B	B+	B+
Hyundai	ESG Reporting Scope	59.03%	59.32%	58.13%	56.29%	56.36%
	ESG Score (Weight 100.0%)	B	B	B	B+	B+
Honda	ESG Reporting Scope	32.19%	31.93%	30.71%	30.27%	30.03%
	ESG Score (Weight 100.0%)	A-	A-	A	A	A-
General moto	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	A-	A-	A-	A-	A
Ferrari	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	B	B-	B-	B	C+
Tesla	ESG Reporting Scope	51.00%	51.00%	51.00%	100%	100%
	ESG Score (Weight 100.0%)	B+	B	B	B-	C+
BYD	ESG Reporting Scope	100%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	B-	C+	B-	B-	B-
Fisker	ESG Reporting Scope	100%	100%	--	--	--
	ESG Score (Weight 100.0%)	C	C-	D		
Mazda	ESG Reporting Scope	12.00%	46.61%	45.97%	46.18%	45.46%
	ESG Score (Weight 100.0%)	B	B	B	B+	B+
SAIC Motor	ESG Reporting Scope	51.00%	100%	100%	100%	100%
	ESG Score (Weight 100.0%)	B-	B-	B-	C	C
Mahindra	ESG Reporting Scope	93.29%	95.32%	94.38%	93.70%	93.68%
	Social Pillar Score (Weight A)	A	A	A	A	B
Tata	ESG Reporting Scope	71.12%	41.57%	48.17%	33.30%	30.73%
	ESG Score (Weight 100.0%)	A	A-	A	A-	A-

Annexe 9 : Moyenne des corrélations des scores ESG Bloomberg



Annexe 10 : Corrélation des scores ESG Bloomberg toutes années confondues

	ESG Disclosure	ESG Performance		E Disclosure	E Performance		S Disclosure	S Performance		G Disclosure	G Performance	
ESG Disclosure	1			E Disclosure	1		S Disclosure	1		G Disclosure	1	
ESG Performanc	0.599297289	1		E Performanc	0.56545961	1	S Performanc	0.266274614	1	G Performanc	0.409782618	1

Annexe 11 : Corrélation du Score ESG et du Reporting scope calculé sur base des données reprises sur la plateforme Eikon Refinitiv

	ESG Reporting Scope	ESG Score (Weight 100.0%)
ESG Reporting Scope	1	
ESG Score (Weight 100.0%)	0.02268303	1

Annexe 12 : Corrélation des variables Bloomberg exemple

	ESG Disclosure	CA		ESG Disclosure	UE		ESG Disclosure	Juste Electrique	
ESG Disclo	1			ESG Disclosure	1		ESG Disclosure	1	
CA	0.501918659	1		UE	0.383074099	1	Juste Electrique	-0.523928311	1

	CA	UE		CA	Juste Electrique		UE	Juste Electrique	
CA	1			CA	1		UE	1	
UE	0.228113	1		Juste Electrique	-0.339004464	1	Juste Electrique	-0.267397704	1

Annexe 13 : Code R de l'analyse de la Régression linéaire de l'hypothèse 1 sur les données Bloomberg

```
> data$covid_dummy <- ifelse(data$Années == 2020, 1, 0)
> data$crise_semi_conducteurs_dummy <- ifelse(data$Années %in% c(2021, 2022), 1, 0)
> model_pooling <- plm(formula = ESG_performance ~ CA1 + ESG_Disclosure + UE + Juste_Electrique + covid_dummy +
+ crise_semi_conducteurs_dummy, data = data, index = c("Groupes", "Années"), model = "pooling")
> summary(model_pooling)
```

Pooling Model

Call:

```
plm(formula = ESG_performance ~ CA1 + ESG_Disclosure + UE + Juste_Electrique +
+ covid_dummy + crise_semi_conducteurs_dummy, data = data,
+ model = "pooling", index = c("Groupes", "Années"))
```

unbalanced Panel: n = 21, T = 2-5, N = 101

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-2.33252	-0.54577	0.12108	0.64248	1.49964

Coefficients:

	Estimate	Std. Error	t-value
(Intercept)	0.2902717	0.5766478	0.5034
CA1	0.0011308	0.0014306	0.7904
ESG_Disclosure	0.0556644	0.0104378	5.3330
UE	-0.0406999	0.2021353	-0.2013
Juste_Electrique	0.2163775	0.3260060	0.6637
covid_dummy	0.4020055	0.2479333	1.6214
crise_semi_conducteurs_dummy	0.6906073	0.2028329	3.4048

Pr(>|t|)

(Intercept)	0.6158762
CA1	0.4312719
ESG_Disclosure	6.635e-07 ***
UE	0.8408600
Juste_Electrique	0.5084925
covid_dummy	0.1082760
crise_semi_conducteurs_dummy	0.0009751 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares: 131.72

Residual Sum of Squares: 73.944

R-Squared: 0.43862

Adj. R-Squared: 0.40279

F-statistic: 12.2408 on 6 and 94 DF, p-value: 3.9152e-10

```
> bptest(model_pooling)
```

studentized Breusch-Pagan test

```
data: model_pooling
```

```
BP = 14.456, df = 6, p-value = 0.02494
```

```
> coeftest(model_pooling, vcov = vcovHC(model_pooling, type = "HC1"))
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value
(Intercept)	0.2902717	0.9072161	0.3200
CA1	0.0011308	0.0030277	0.3735
ESG_Disclosure	0.0556644	0.0175790	3.1665
UE	-0.0406999	0.4248735	-0.0958
Juste_Electrique	0.2163775	0.5643344	0.3834
covid_dummy	0.4020055	0.1521186	2.6427
crise_semi_conducteurs_dummy	0.6906073	0.2117543	3.2614

	Pr(> t)
(Intercept)	0.749710
CA1	0.709640
ESG_Disclosure	0.002080 **
UE	0.923889
Juste_Electrique	0.702274
covid_dummy	0.009635 **
crise_semi_conducteurs_dummy	0.001545 **

```
---
```

```
signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Annexe 14 : Code R de l'analyse de la Régression linéaire de l'hypothèse 1 sur les données Eikon Refinitiv

```

> library(readxl)
> eikon_donnees <- read_excel("~/eikon_donnees.xlsx")
> view(eikon_donnees)
> dataeikon <- read_excel("~/eikon_donnees.xlsx")
> dataeikon$covid_dummy <- ifelse(dataeikon$Années == 2020, 1, 0)
> dataeikon$crise_semi_conducteurs_dummy <- ifelse(dataeikon$Années
%in% c(2021, 2022), 1, 0)
> modeleikon_pooling <- plm(ESG_Score ~ CA1 + ESG_Reporting_Scope +
UE + Juste_Electrique + covid_dummy + crise_semi_conducteurs_dummy,
data=dataeikon, index = c("Entreprises", "Années"), model = "poolin
g")
> summary(modeleikon_pooling)
Pooling Model

```

Call:

```

plm(formula = ESG_Score ~ CA1 + ESG_Reporting_Scope + UE + Juste_El
ectrique +
      covid_dummy + crise_semi_conducteurs_dummy, data = dataeikon,
      model = "pooling", index = c("Entreprises", "Années"))

```

Unbalanced Panel: n = 21, T = 2-5, N = 102

Residuals:

	Min.	1st Qu.	Median	3rd Qu.	Max.
	-0.346944	-0.074430	0.019177	0.081587	0.206302

Coefficients:

	Estimate	Std. Error	t-value
(Intercept)	0.64999377	0.03989252	16.2936
CA1	0.00050501	0.00017891	2.8227
ESG_Reporting_Scope	-0.02735647	0.04741187	-0.5770
UE	0.10217118	0.03148313	3.2453
Juste_Electrique	-0.16275232	0.04239225	-3.8392
covid_dummy	0.02319766	0.03321061	0.6985
crise_semi_conducteurs_dummy	0.00423936	0.02681574	0.1581

Pr(>|t|)

(Intercept)	< 2.2e-16	***
CA1	0.0058010	**
ESG_Reporting_Scope	0.5653068	
UE	0.0016209	**
Juste_Electrique	0.0002225	***
covid_dummy	0.4865700	
crise_semi_conducteurs_dummy	0.8747195	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
Total sum of squares:    2.3958
Residual sum of squares: 1.3937
R-Squared:              0.41825
Adj. R-Squared:         0.38151
F-statistic: 11.3835 on 6 and 95 DF, p-value: 1.4858e-09
```

```
> bptest(modeleikon_pooling)
```

studentized Breusch-Pagan test

```
data: modeleikon_pooling
BP = 14.882, df = 6, p-value = 0.02119
```

```
> coefTest(modeleikon_pooling, vcov = vcovHC(modeleikon_pooling, type = "HC1"))
```

t test of coefficients:

	Estimate	Std. Error	t value
(Intercept)	0.64999377	0.06044929	10.7527
CA1	0.00050501	0.00036263	1.3926
ESG_Reporting_Scope	-0.02735647	0.09634352	-0.2839
UE	0.10217118	0.07442940	1.3727
Juste_Electrique	-0.16275232	0.07205440	-2.2587
covid_dummy	0.02319766	0.01583323	1.4651
crise_semi_conducteurs_dummy	0.00423936	0.01732117	0.2448

	Pr(> t)
(Intercept)	< 2e-16 ***
CA1	0.16698
ESG_Reporting_Scope	0.77707
UE	0.17307
Juste_Electrique	0.02619 *
covid_dummy	0.14619
crise_semi_conducteurs_dummy	0.80718

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Annexe 15 : Code R de l'analyse de la Régression linéaire de l'hypothèse 2 sur les données Bloomberg

```

> modelbbg_pooling <- plm(Benef_net1 ~ CA1 + ESG_perf + Ratio_
_endettement + covid_dummy + crise_semi_conducteurs_dummy, da
ta = databbg, index = c("Groupes", "Années"), model = "poolin
g")
> summary(modelbbg_pooling)
Pooling Model

Call:
plm(formula = Benef_net1 ~ CA1 + ESG_perf + Ratio_endettement
+
      covid_dummy + crise_semi_conducteurs_dummy, data = databb
g,
      model = "pooling", index = c("Groupes", "Années"))

Unbalanced Panel: n = 21, T = 2-5, N = 101

Residuals:
      Min.      1st Qu.      Median      3rd Qu.      Max.
-10.40949  -1.76869  -0.22554   1.88602  16.05262

Coefficients:
              Estimate Std. Error t-value
(Intercept)  -1.2984303   1.5158296  -0.8566
CA1           0.0394005   0.0060223   6.5424
ESG_perf      0.3460304   0.4556568   0.7594
Ratio_endettement -0.1168967  0.3689146  -0.3169
covid_dummy   -1.3835840   1.1579889  -1.1948
crise_semi_conducteurs_dummy 2.0347855   1.0552045   1.9283
              Pr(>|t|)
(Intercept)      0.3938
CA1              3.044e-09 ***
ESG_perf         0.4495
Ratio_endettement 0.7520
covid_dummy      0.2351
crise_semi_conducteurs_dummy 0.0568 .
---
Signif. codes:
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```
Total sum of Squares: 2700.1
Residual sum of Squares: 1585.9
R-Squared: 0.41265
Adj. R-Squared: 0.38173
F-statistic: 13.3484 on 5 and 95 DF, p-value: 7.4718e-10
```

```
> bptest(modelbbg_pooling)
```

```
studentized Breusch-Pagan test
```

```
data: modelbbg_pooling
```

```
BP = 23.844, df = 5, p-value = 0.0002326
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value
(Intercept)	-1.298430	1.357556	-0.9564
CA1	0.039400	0.014349	2.7458
ESG_perf	0.346030	0.583575	0.5929
Ratio_endettement	-0.116897	0.735046	-0.1590
covid_dummy	-1.383584	0.679296	-2.0368
crise_semi_conducteurs_dummy	2.034785	1.002360	2.0300

```
Pr(>|t|)
```

(Intercept)	0.34127
CA1	0.00722 **
ESG_perf	0.55462
Ratio_endettement	0.87398
covid_dummy	0.04445 *
crise_semi_conducteurs_dummy	0.04515 *

```
---
```

```
Signif. codes:
```

```
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Annexe 16 : Code R de l'analyse de la Régression linéaire de l'hypothèse 2 sur les données Eikon Refinitiv

```

> modelep_pooling <- plm(Benef_net1 ~ CA1 + ESG_Score + Ratio_
_endettement + covid_dummy + crise_semi_conducteurs_dummy, da
ta = dataep, index = c("Groupe", "Années"), model = "poolin
g")
> summary(modelep_pooling)
Pooling Model

Call:
plm(formula = Benef_net1 ~ CA1 + ESG_Score + Ratio_endettemen
t +
      covid_dummy + crise_semi_conducteurs_dummy, data = datae
p,
      model = "pooling", index = c("Groupe", "Années"))

Unbalanced Panel: n = 21, T = 2-5, N = 101

Residuals:
      Min.      1st Qu.      Median      3rd Qu.      Max.
-11.39686  -3.04770  -0.70212   1.70887  16.80094

Coefficients:
              Estimate Std. Error t-value
(Intercept)  -3.2238452  2.4246223  -1.3296
CA1           0.0041846  0.0075907   0.5513
ESG_Score    9.4637874  4.0730308   2.3235
Ratio_endettement -0.2178220  0.4633004  -0.4702
covid_dummy  -1.0967767  1.3609642  -0.8059
crise_semi_conducteurs_dummy 2.0226335  1.1280106   1.7931

              Pr(>|t|)
(Intercept)  0.18682
CA1          0.58274
ESG_Score    0.02228 *
Ratio_endettement 0.63932
covid_dummy  0.42232
crise_semi_conducteurs_dummy 0.07614 .
---
Signif. codes:
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```
Total Sum of Squares: 2700.1
Residual Sum of Squares: 2329.3
R-Squared: 0.13732
Adj. R-Squared: 0.09192
F-statistic: 3.0245 on 5 and 95 DF, p-value: 0.014094
```

```
> bptest(modelep_pooling)
```

```
studentized Breusch-Pagan test
```

```
data: modelep_pooling
BP = 19.817, df = 5, p-value = 0.001353
```

```
> coeftest(modelep_pooling, vcovHC(modelep_pooling, type = "H
C1"))
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value
(Intercept)	-3.2238452	2.7398780	-1.1766
CA1	0.0041846	0.0158177	0.2646
ESG_Score	9.4637874	6.0765107	1.5574
Ratio_endettement	-0.2178220	0.5609575	-0.3883
covid_dummy	-1.0967767	0.8367460	-1.3108
crise_semi_conducteurs_dummy	2.0226335	0.9795353	2.0649

```
Pr(>|t|)
```

(Intercept)	0.24228
CA1	0.79193
ESG_Score	0.12269
Ratio_endettement	0.69866
covid_dummy	0.19310
crise_semi_conducteurs_dummy	0.04166 *

```
---
```

```
Signif. codes:
```

```
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Annexe 17 : Code R de l'analyse de la comparaison de l'évolution des scores ESG selon les secteurs (Eikon Refinitiv)

```
> pdata <- pdata.frame(H4, index = c("Entreprise", "Temps"))
> model <- plm(Score_ESG ~ Temps + Automobile + Textile + Informatique + Automobile:Temps + Textile:Temps + Informatique:Temps, data = pdata, model
= "within")
> view(pdata)
```

```
> summary(model)
Oneway (individual) effect within Model

Call:
plm(formula = Score_ESG ~ Temps + Automobile + Textile + Informatique +
      Automobile:Temps + Textile:Temps + Informatique:Temps, data = pdata,
      model = "within")
```

Unbalanced Panel: n = 69, T = 1-5, N = 336

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-0.2453821	-0.0292745	-0.0036796	0.0362736	0.1523810

Unbalanced Panel: n = 69, T = 1-5, N = 336

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-0.2453821	-0.0292745	-0.0036796	0.0362736	0.1523810

Coefficients: (4 dropped because of singularities)

	Estimate	Std. Error	t-value	Pr(> t)	
Temps2019	0.050000	0.016540	3.0230	0.0027575	**
Temps2020	0.060000	0.016540	3.6277	0.0003454	***
Temps2021	0.080000	0.016540	4.8369	2.284e-06	***
Temps2022	0.083090	0.016754	4.9596	1.291e-06	***
Temps2019:Automobile	-0.020833	0.024809	-0.8397	0.4018416	
Temps2020:Automobile	-0.032619	0.024727	-1.3192	0.1882987	
Temps2021:Automobile	-0.055000	0.024809	-2.2169	0.0275122	*
Temps2022:Automobile	-0.043805	0.024871	-1.7613	0.0793888	.
Temps2019:Textile	-0.019697	0.024175	-0.8148	0.4159615	
Temps2020:Textile	-0.022121	0.024175	-0.9151	0.3610281	
Temps2021:Textile	-0.026970	0.024175	-1.1156	0.2656379	
Temps2022:Textile	-0.040883	0.024511	-1.6679	0.0965603	.

 signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

 signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total sum of squares: 1.0354
 Residual sum of squares: 0.87197
 R-squared: 0.15786
 Adj. R-squared: -0.10634
 F-statistic: 3.98325 on 12 and 255 DF, p-value: 1.1813e-05

```
> bptest(model)
```

```
studentized Breusch-Pagan test
```

```
data: model
```

```
BP = 21.47, df = 14, p-value = 0.09018
```

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