

Acción urgente por la Transformación Climática



III Conferencia
Internacional
Educación en
Cambio Climático
y Desarrollo Sostenible

22 al 24
JUNIO | 9:00 a
16:30 hrs

#ECC2021

ORGANIZAN



SIEMENS | Stiftung



Con el apoyo de la
Oficina de
Santiago

PATROCINA



“La naturaleza como Unidad”

Alexander von Humboldt y Francisco José de Caldas, Aportes desde Latinoamérica al Mundo



<https://www.dw.com/es/tras-el-rastro-de-alexander-von-humboldt-en-europa/g-50424058>



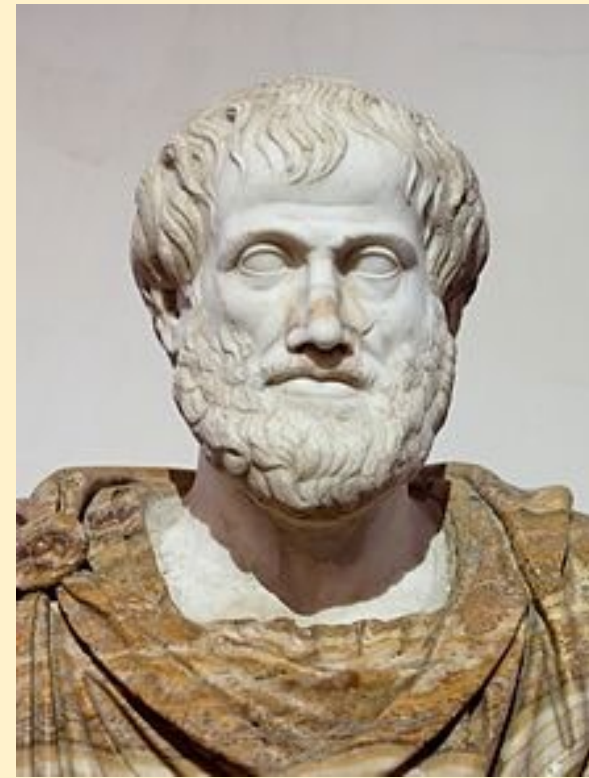
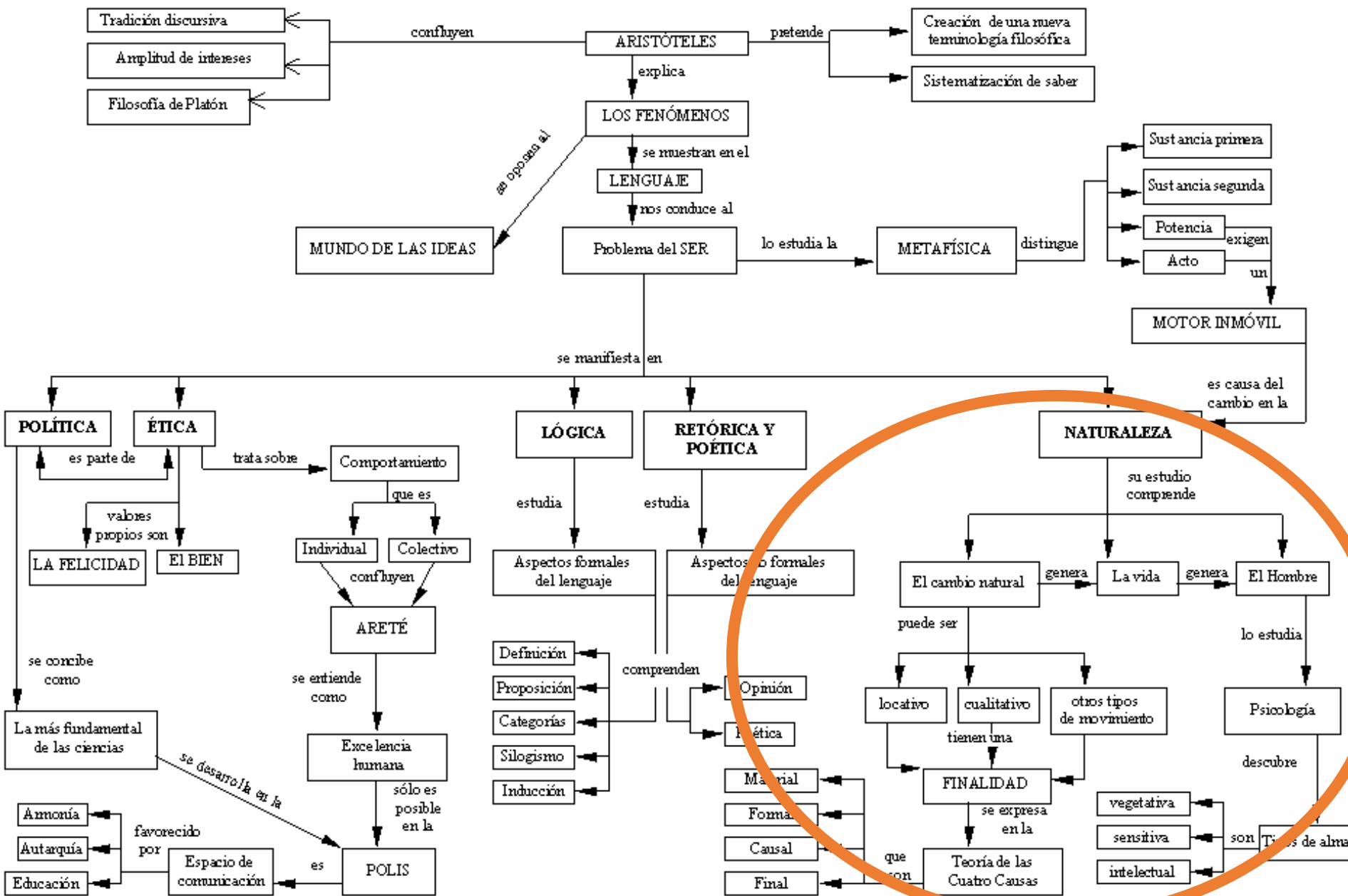
<https://www.elcolombiano.com/cultura/la-ciencia-que-vivio-en-el-sabio-caldas-XM3835451>

Andrés Villegas Cortés
Bogotá - 2021

La naturaleza como unidad

***“Humboldt reveló que la naturaleza es una enorme red interconectada y fue más allá. Si bien en su época la ciencia y el arte eran vistos como agua y aceite, el alemán integró a sus observaciones científicas una respuesta emocional.”
(Semana, 2021)***

ARISTÓTELES



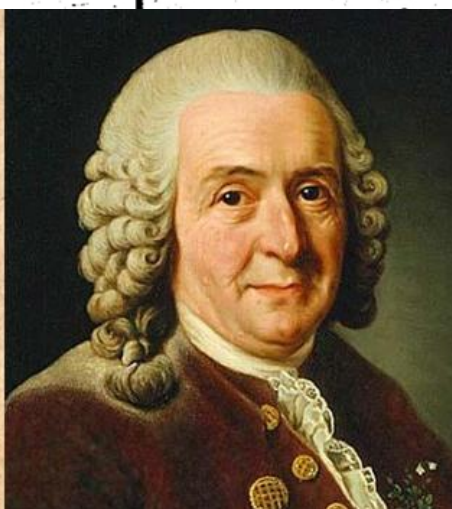
<https://es.wikipedia.org/wiki/Arist%C3%B3teles>

ARISTOTELES

				I CÆSALPINI	pag. 1
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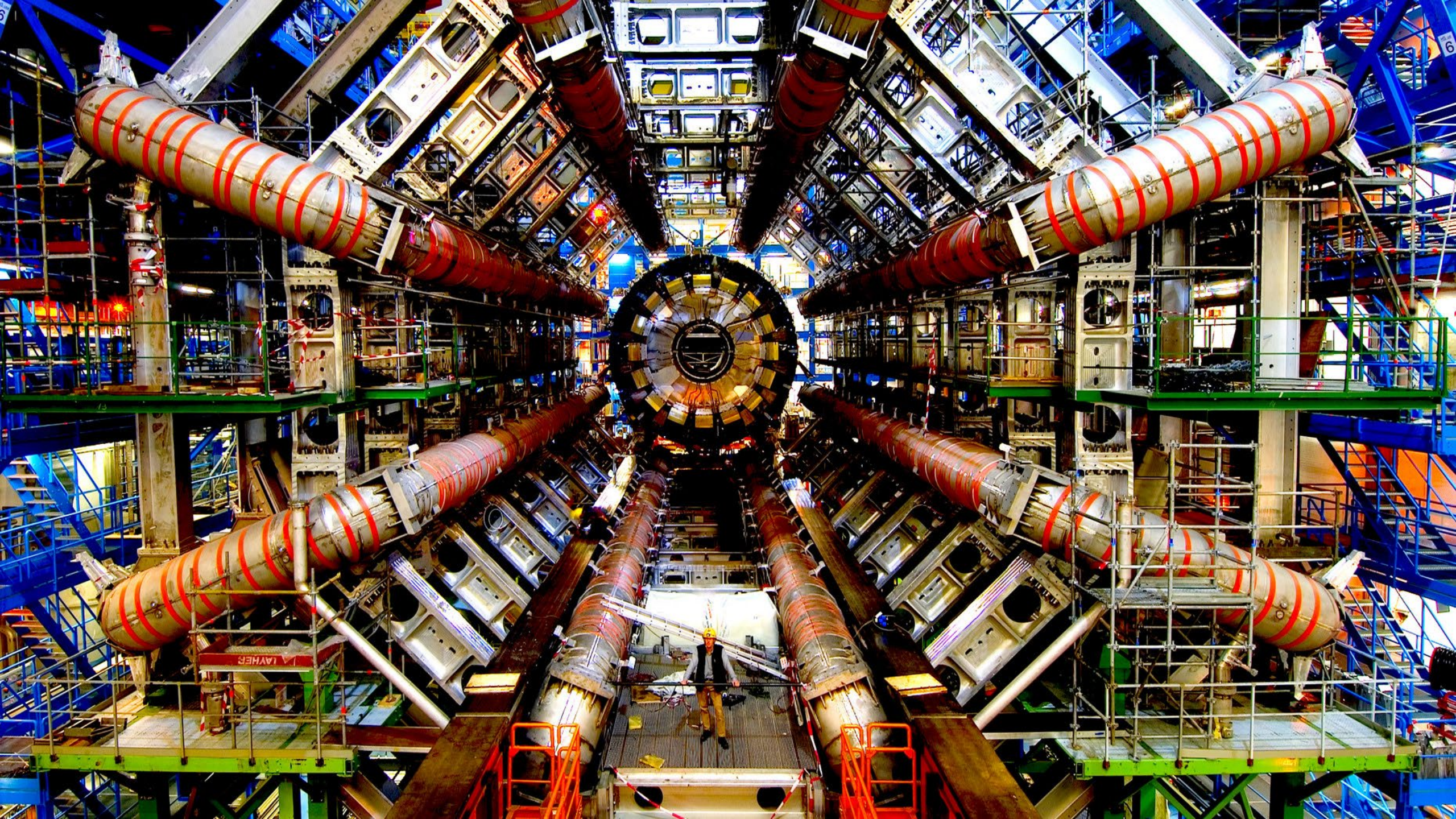
SIE SIGIS. MITIS SVETICÆ ARCHIATRI; MEDIC. & BOTAN.
PROFESS. UPSAL; EQUITIS AUR. DE STELLA POLARI;
REC. NON ACAD. IMPER. MONSPEL. BEROL. TOLOS.
UPSAL. STOCKH. SOC. & PARIS. CORESP.

EXHIBENTES
PLANTAS RITE COGNITAS,
AD
GENERA RELATAS,
CUM
DIFFERENTIIS SPECIFICIS,
NOMINIBUS TRIVIALIBUS,
SYNONYMIS SELECTIS,
LOCIS NATALIBUS,
SECUNDUM
SYSTEMA SEXUALE
DIGESTAS.

[illegible]

https://es.wikipedia.org/wiki/Denis_Diderot

Denis Diderot



Modelo

Estándar

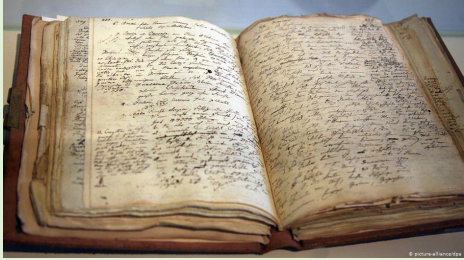
de

Partículas...

Tres generaciones de la materia (fermiones)

	I	II	III		
masa →	2,4 MeV/c ²	1,27 GeV/c ²	171,2 GeV/c ²	0	0
carga →	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$	0	0
espín →	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1	2
nombre →	u up	c charm	t top	γ Foton	G Graviton
Quark	4,8 MeV/c ²	104 MeV/c ²	4,2 GeV/c ²	0	? GeV/c ²
	$-\frac{1}{3}$	$-\frac{1}{3}$	$-\frac{1}{3}$	0	0
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1	0
	d down	s strange	b bottom	g Gluon	H Boson Higgs
Lepton	<2,2 eV/c ²	<0,17 MeV/c ²	<15,5 MeV/c ²	91,2 GeV/c ²	
	0	0	0	0	
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1	
	ν_e Neutrino electrónico	ν_μ Neutrino muónico	ν_τ Neutrino tauónico	Z⁰ Boson Z	
	0,511 MeV/c ²	105,7 MeV/c ²	1,777 GeV/c ²	80,4 GeV/c ²	
	-1	-1	-1	±1	
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1	
	e Electrón	μ Muón	τ Tau	W[±] Boson W	
					Bosones de gauge

Alexander Von Humboldt



1769	1791 -	1799 -	1808 -	1845	1859
<p>Friedrich Wilhelm Heinrich Alexander von Humboldt Su padre: Oficial del ejército y chambelán de la Princesa Su madre: Marie Elisabeth von Holwede</p>	<p>1791: Escuela de minas de Freiberg (22) 1795: Consejo Superior de Minas (26)</p>	<p>1799: Viaja a España, Venezuela (30) 1800: Viaja a Cuba (31) 1801: Visita Colombia 1802-1804: Perú, Ecuador, México, EUA (32-34)</p>	<p>1808: Publicación de Ansichten de Natur (Aspectos de la Naturaleza) (39) 1827: se terminan de publicar los 35 volúmenes de su obra (58)</p>	<p>1845: Publicación de Kosmos (iniciada en 1834) reside en Berlín y está dedicado a la diplomacia. (76)</p>	<p>Fallece a los 89 años de edad</p>



Francisco José de Caldas



1768

1793

1805

1810

1816

1801

1808

1812

Nace Popayán (Colombia)
29/oct/1768
Padres: José de Caldas y
Vicenta Tenorio
Estudia en Popayán

1793: termina sus
estudios de Derecho (25)
1801: inicia fluida
comunicación con Mutis,
y ese año conoce a Von
Humbolt (33)

1805: Nombrado
astrónomo de la Real
Expedición Botánica (37)
1808: Nombrado director
del Observatorio
Astronómico (40)

1810: Cerrado proyecto
Expedición Botánica (42)
1811: Nombrado Cuerpo
Ingenieros (43)
1812: Se desvincula de su
protector A. Nariño (44)

1816:
Muere
Fusilado
(47)



Wf 55 (10)



*Officielle par la Société de Géographie de Paris
Maison où a vécu le Baron Alexandre de Humboldt*

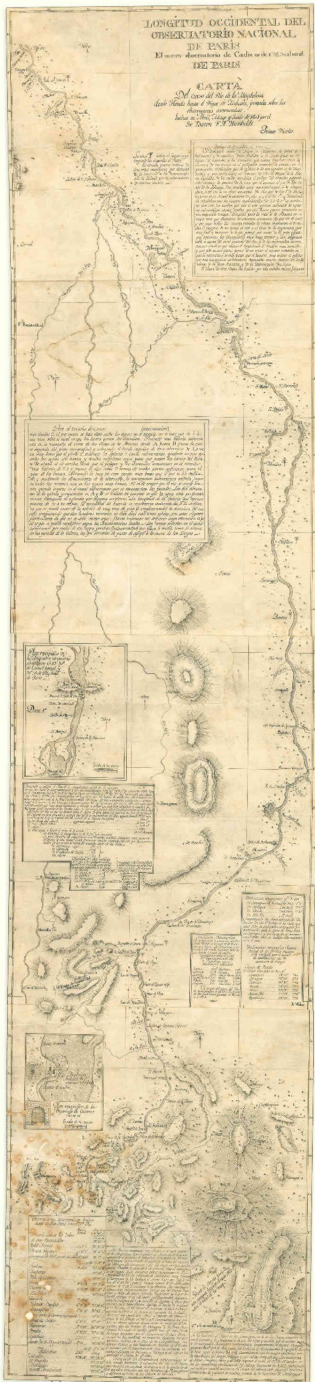
Bogotá

Wf 55

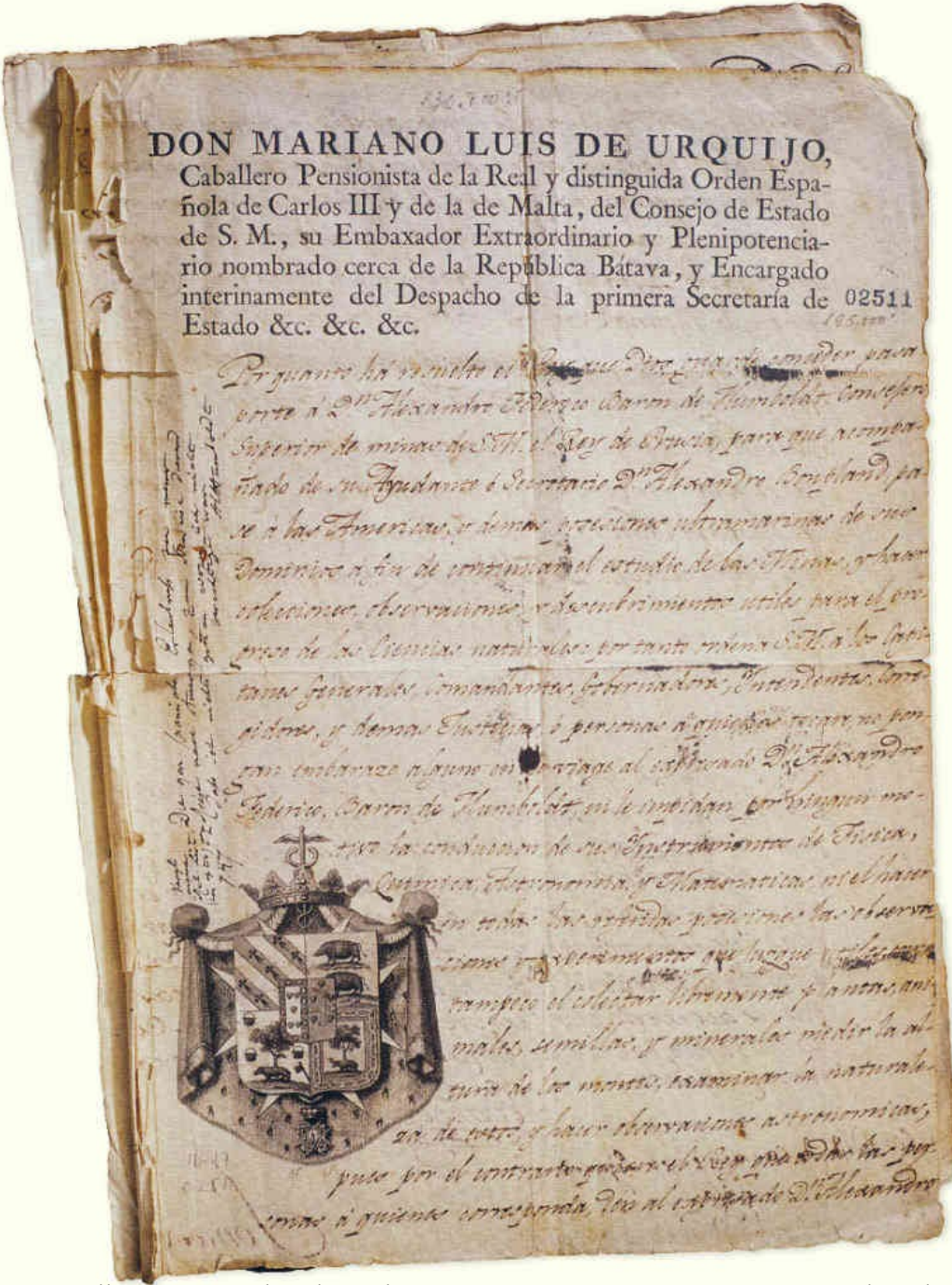


https://es.wikipedia.org/wiki/Casa_Museo_Francisco_Jos%C3%A9_de_Caldas

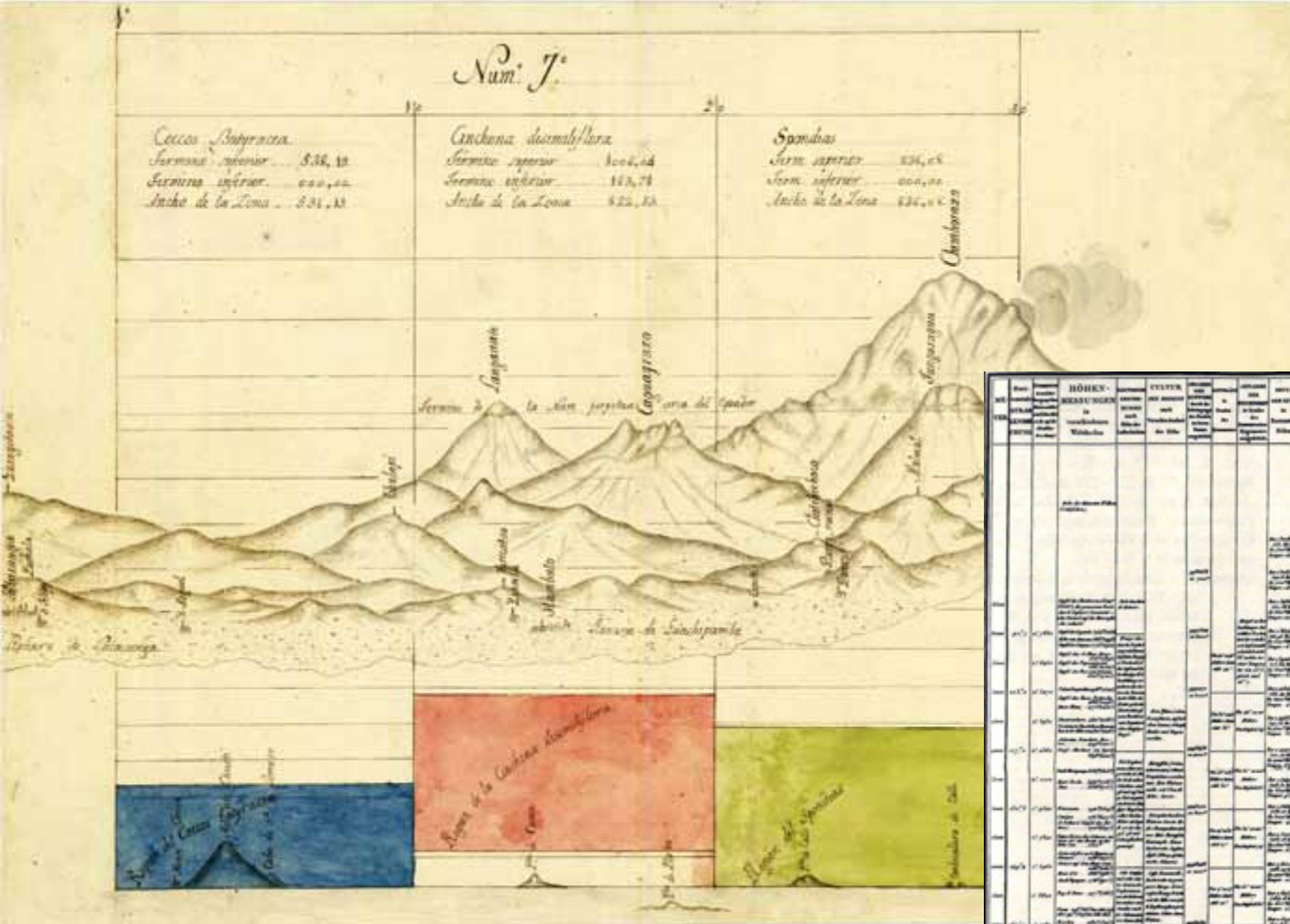
<https://www.semana.com/libros/articulo/humboldt-en-la-nueva-granada-reconstruyendo-sus-pasos/70792/>



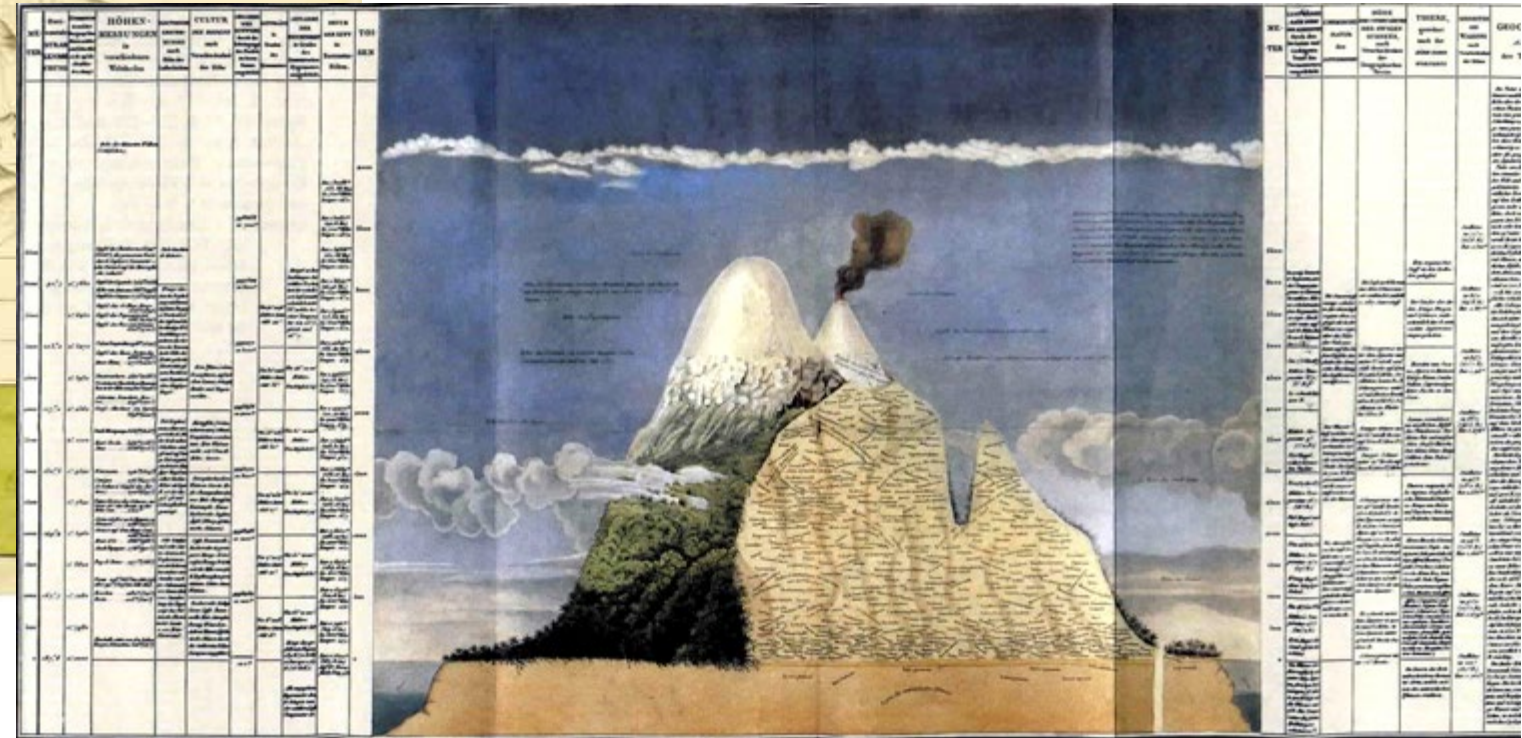
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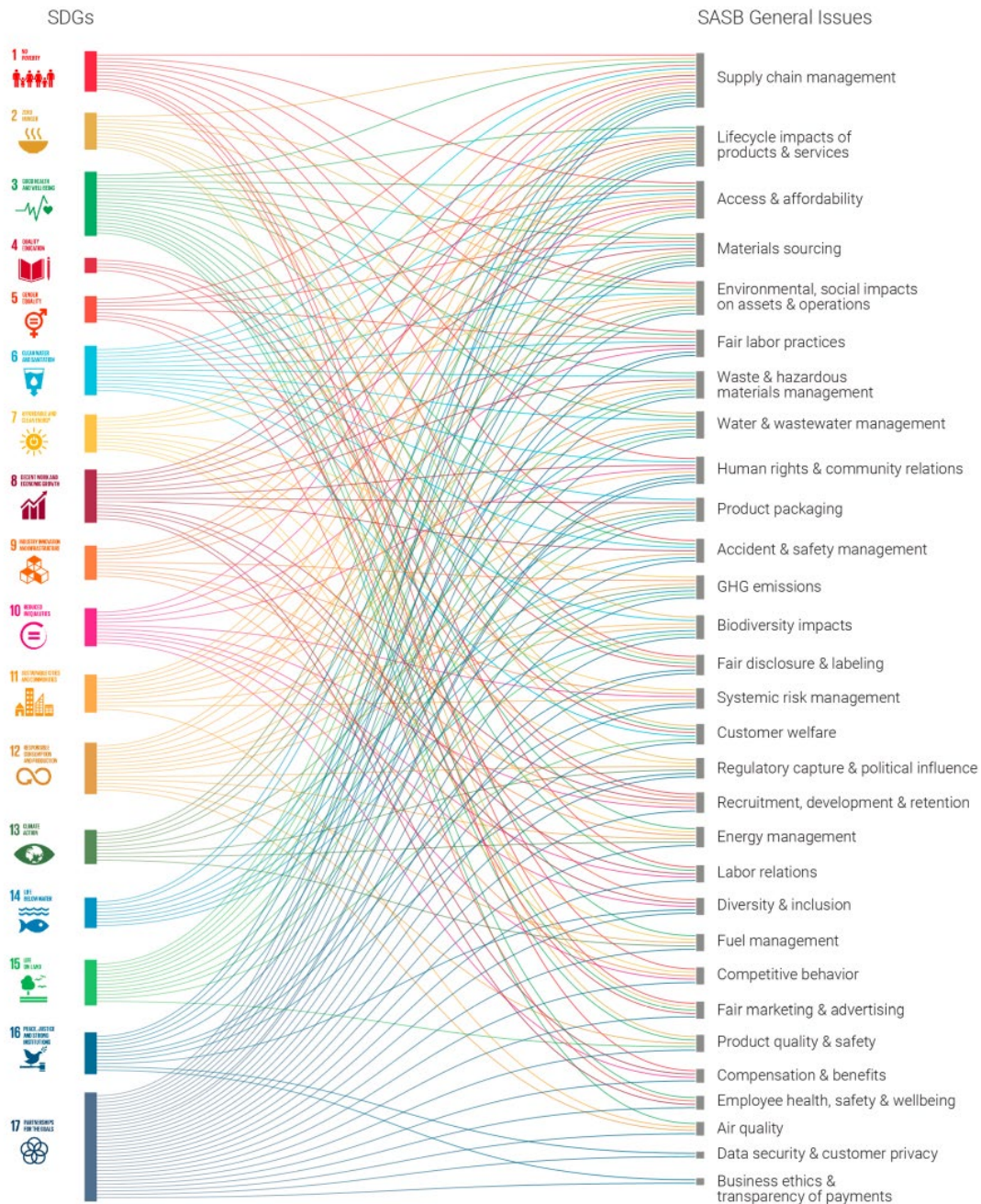
<https://noticias.masverdedigital.com/un-dibujo-hecho-por-humboldt-hace-200-anos-permite-apreciar-las-alteraciones-del-cambio-climatico-en-america-latina/>



Geographie der Pflanzen in den Tropen-Ländern;
ein Naturgemälde der Anden,
gegründet auf Beobachtungen und Messungen, welche vom 10.^{ten} Grade nördlicher bis zum 10.^{ten} Grade südlicher Breite angestellt worden sind, in den Jahren
von ALEXANDER VON HUMBOLDT und A. G. BONPLAND.



Relevancia de los Objetivos de Desarrollo Sostenible (ODS)



Producido en colaboración con **TROLLBACK + COMPANY** | TheGlobalGoals@trollback.com | +1.212.529.1010
Para cualquier duda sobre la utilización, por favor comuníquese con: dpcicampaigns@un.org

<https://sdgs.un.org/es/goals>

Sustainable Development Goals

Sustainable Accounting Standards Board

<https://materiality.sasb.org/>

Sustainable Development Goals

Sustainable Accounting Standards Board

Table 5. SDG Relevance Index (SRI) and Target Relevance Index (TRI).

SASB General Issue Category	# of SDGs Impacted	#of Targets Impacted	SRI	TRI
Environment				
GHG emissions	3	4	18.75%	3.74%
Air quality	3	7	18.75%	6.54%
Energy management	5	13	31.25%	12.15%
Fuel management	4	11	25.00%	10.28%
Water and wastewater management	7	24	43.75%	22.43%
Waste and hazardous materials management	7	20	43.75%	18.69%
Biodiversity impacts	6	17	37.50%	15.89%
Social Capital				
Human rights and community relations	6	24	37.50%	22.43%
Access and affordability	9	18	56.25%	16.82%
Customer welfare	5	12	31.25%	11.21%
Data security and customer privacy	1	1	6.25%	0.93%
Fair disclosure and labeling	4	8	25.00%	7.48%
Fair marketing and advertising	4	10	25.00%	9.35%
Human Capital				
Labor relations	4	16	25.00%	14.95%
Fair labor practices	7	18	43.75%	16.82%
Employee health safety and wellbeing	3	13	18.75%	12.15%
Diversity and inclusion	4	17	25.00%	15.89%
Compensation and benefits	3	8	18.75%	7.48%
Recruitment development and retention	5	14	31.25%	13.08%
Business Model and Innovation				
Lifecycle impacts of products and services	11	27	68.75%	25.23%
Environmental social impacts on assets & operations		19	56.25%	17.76%
Product packaging	6	10	37.50%	9.35%
Product quality and safety	4	9	25.00%	8.41%
Leadership and Governance				
Systemic risk management	5	7	31.25%	6.54%
Accident and safety management	7	13	43.75%	12.15%
Business ethics and transparency of payments	1	2	6.25%	1.87%
Competitive behavior	4	9	25.00%	8.41%
Regulatory capture and political influence	5	12	31.25%	11.21%
Materials sourcing	8	17	50.00%	15.89%
Supply chain management	14	36	87.50%	33.64%



SASB Materiality Map®

SASB's Materiality Map® identifies sustainability issues that are likely to affect the financial condition or operating performance of companies within an industry. In the left-hand column, SASB identifies 26 sustainability-related business issues, or General Issue Categories, which encompass a range of Disclosure Topics and their associated Accounting Metrics that vary by industry. For example, the General Issue Category of Customer Welfare encompasses both the Health and Nutrition topic in the Processed Foods industry and the Counterfeit Drugs topic in the Health Care Distributors industry. For commercial use terms of the SASB Materiality Map®, [please contact us](#).

The SASB Materiality Map® does not contain all guidance necessary for use of the standards. [To download the SASB standards, click here.](#)

マテリアリティマップの日本語版をご覧になるには、[ここをクリックしてください](#) To see a version of the Materiality Map in Japanese, please [click here](#).

Sector Level Map

- Issue is likely to be material for more than 50% of industries in sector
- Issue is likely to be material for fewer than 50% of industries in sector
- Issue is not likely to be material for any of the industries in sector

Industry Level Map

- Not likely a material issue for companies in the industry
- Likely a material issue for companies in the industry

		Consumer Goods	Extractives & Minerals Processing	Financials	Food & Beverage	Health Care	Infrastructure	Renewable Resources & Alternative Energy	Resource Transformation	Services	Technology & Communications	Transportation
Dimension	General Issue Category ^①	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand	Click to expand
Environment	GHG Emissions											
	Air Quality											
	Energy Management											
	Water & Wastewater Management											
	Waste & Hazardous Materials Management											
	Ecological Impacts											
Social Capital	Human Rights & Community Relations											
	Customer Privacy											
	Data Security											
	Access & Affordability											
	Product Quality & Safety											
	Customer Welfare											
Human Capital	Selling Practices & Product Labeling											
	Labor Practices											
	Employee Health & Safety											
	Employee Engagement, Diversity & Inclusion											
Business Model & Innovation	Product Design & Lifecycle Management											
	Business Model Resilience											
	Supply Chain Management											
	Materials Sourcing & Efficiency											
	Physical Impacts of Climate Change											
Leadership & Governance	Business Ethics											
	Competitive Behavior											
	Management of the Legal & Regulatory Environment											
	Critical Incident Risk Management											
	Systemic Risk Management											

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