



Sustainalytics' Product Involvement

Research Methodology

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INTRODUCTION

Product Involvement Product (PI) provides research on company involvement in products and services, which allows clients to screen companies according to specific criteria motivated by ethical, impact, compliance or ESG risk considerations.

PI includes the following features:

- Products and revenue analysis.
- Ranges of revenues derived from products (i.e. 0-4.9%, 5-9.9%, 10-24.9%, 25-49.9%, 50-100%).
- Percentage of revenues derived from products.
- Production capacity ranges and capacity percentage for relevant energy involvement categories as additional datapoints.
- Percentage of ownership in companies involved in the product.

**Kindly note that the percentages shown above go to the .99% range, the display is used for simplicity purposes. The 0-4.9% range also includes 0% revenues, applicable to companies that are involved in revenue-based areas, but that are not currently deriving revenues from the activities.*

PI currently covers a comprehensive set of involvement areas (27), from energy and environment to defense and health and life, including over 60 different product categories.

Energy	Environment	Defense & Military	Business practices	Health	Values-based
Thermal Coal	Genetically Modified Plants and Seeds	Controversial Weapons*	Animal Testing	Alcoholic Beverages	Adult Entertainment
Oil Sands		Small Arms	Fur and Specialty Leather	Tobacco Products	Gambling
Arctic Oil & Gas Exploration	Pesticides	Military Contracting	Predatory Lending	Cannabis	Pork Products
Shale Energy	Palm Oil	Riot Control	Private Prisons		Abortion
Oil & Gas			Whale Meat		Contraceptives
Nuclear Power					Human Embryonic Stem Cell and Fetal Tissue

** More comprehensive research available through the Controversial Weapons Radar product*

RESEARCH METHODOLOGY

Categories of involvement

Product Involvement areas track companies' involvement in certain products or services in terms of:

- **Direct involvement:** a company is directly involved (by itself or a majority owned subsidiary) in a product or service in one or more ways such as production, distribution, or related services; or
- **Indirect involvement:** a company is indirectly involved in a product or service through ownership of an involved company ("Significant ownership").

Involvement through corporate ownership

- If a company holds a majority stake (i.e. more than 50%) of another company that is considered directly involved, the parent company is considered involved in the same category of involvement as the subsidiary.* In these cases, we associate relevant revenues of the involved subsidiary attributed to the parent following the exact revenues methodology described below. **(direct involvement)**
- If a company holds a minority stake (i.e. 10-50%), of another company that is considered directly involved, the parent company's involvement is tracked using the 'Significant ownership' category. In this case, the revenues of the subsidiary are not attributed to the parent but instead the percentage of the ownership stake is captured in order to signal the level of control and influence present in the relationship. **(indirect involvement)**

Level of involvement

For 21 of the 27 PI areas, the level of involvement is indicated using revenues as a proxy.

For the six PI areas for which revenue data is not relevant (e.g. Animal Testing, Abortion), the level of involvement is binary — involved or not involved. Revenues are not considered relevant because the activity giving the involvement status cannot be linked to a specific product/service revenue, and often they are not continuous in time, referring to also capabilities in certain cases.

For clients who wish to use production capacity (instead of revenues) as a proxy for involvement, we offer production capacity data for the following four energy-related categories:

Thermal Coal – Power Generation, Nuclear Power – Production, Oil & Gas - Generation and Oil Sands - Extraction. See Capacity Percentage section below.

Revenue Percentage

For the 21 involvement areas that have a revenue-based level of involvement, Product Involvement provides exact revenue percentage data through the following data points:

- **Revenue Percentage:** The exact percentage of revenues derived from the relevant Product Involvement Category in a fiscal year.
- **Revenue Analysis Source:** An indication of whether the Revenue Percentage is reported by the company or estimated by our research team.

The revenue percentage is determined as follows:

- **Reported revenues:** if a company reports actual revenues or percentage of revenues derived from the involvement, we capture this reported figure in the Revenue Percentage and Standard Analysis fields.
- **Estimated revenues:** if a company does not report actual revenues or a percentage of revenues derived from the involvement, we either:
 - Estimate a revenue range based on a review of business segment revenues, sales data, and quantity and quality of disclosed product information; and then,
 - Take the mid-point of the estimated revenue range as the Revenue Percentage. For example, if the estimated revenue range is 10-20%, the Revenue Percentage figure will be the mid-point of this range, 15%. The standard analysis will include language referring to the estimation being done according to Sustainalytics' methodology.
 - or
 - Provide a more precise estimate if the company has high-quality/sufficient disclosure. The standard analysis will include language explaining the estimation logic.
 - *In case of weak disclosure, the Research Team does not provide an overestimation of involvement. A minimum involvement will be considered depending on disclosure or upon receiving better information, in order not to penalize companies in lack of evidence.*

Capacity Percentage

For four energy-related involvement categories – Nuclear Power – Production involvement category, Thermal Coal – Power Generation involvement category, Oil & Gas – Generation involvement category and Oil Sands – Extraction, we provide exact percentage production capacity data through the following data points:

- **Capacity Percentage:** The exact production capacity percentage derived from the relevant Product Involvement Category.
- **Capacity Analysis Source:** An indication of whether the Capacity Percentage is reported by the company or estimated by our research team.

The capacity percentage is determined using the same approach as for revenue percentage (see above).

Coverage

Product Involvement research has broad global coverage of more than 18,000 issuers of equity and fixed-income securities in emerging and developed markets.

To further support investors to fulfill their mandates, we offer full coverage of their securities through our custom portfolio screening service.

- **Eligibility:** Generally, the following entities are not eligible for PI research:
 - Extinct entities or those with no publicly available information that can be researched.
 - Entities in the following categories:
 - Foundation/Charitable Institutions
 - Government Institutions
 - Educational Institutions
 - Public/private funds (non-REIT) that are not corporate-like issuers.

These type of entities cannot be evaluated meaningfully from a PI ESG point of view, given the revenue-oriented nature of the PI assessments. They might be eligible for other ESG products research.

- **Historical data:** Historical data is available for all companies with involvement for all involvement areas going back to 2012, except for the 11 that were launched after 2012. Beginning in 2019, historical data also includes not involved companies. Since fall 2019, historical data is being archived on a monthly basis.

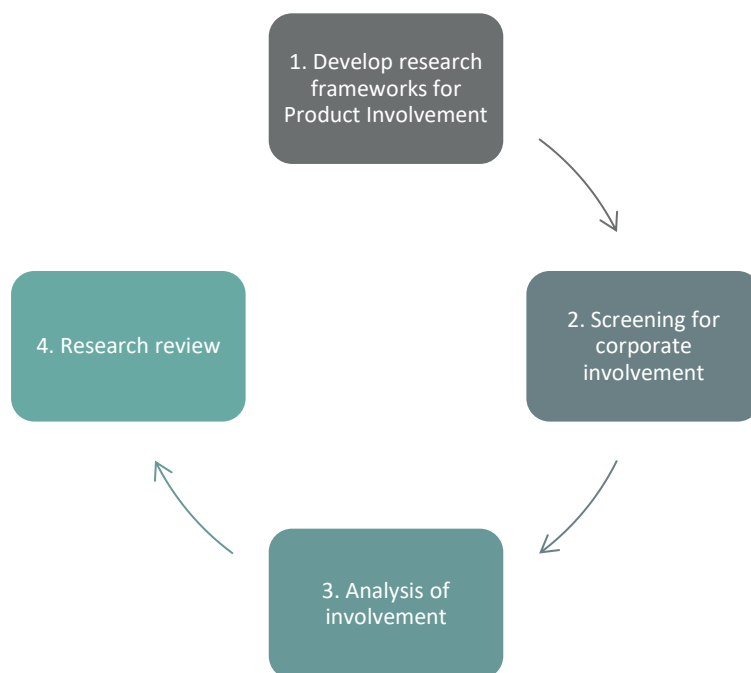
Start years per PI indicator:

Product Involvement Indicator	Start year
Abortion	2012
Adult Entertainment	2012
Alcoholic Beverages	2012
Animal Testing	2015
Arctic Oil & Gas Exploration	2016
Cannabis	2018
Contraceptives	2012
Controversial Weapons	2012
Fur and Specialty Leather	2012
Gambling	2012
Genetically Modified Plants and Seeds	2012
Human Embryonic Stem Cell and Fetal Tissue	2012
Military Contracting	2012
Nuclear	2012
Oil & Gas	2017
Oil Sands	2016
Palm Oil	2015
Pesticides	2012
Pork Products	2015
Predatory Lending	2014
Private Prisons	2021
Riot Control	2015
Shale Energy	2016
Small Arms*	2017
Thermal Coal	2015
Tobacco Products	2012
Whale Meat	2017

**While historical data for the Small Arms indicator goes back to 2012, the framework for this indicator changed in 2018. This means that data from FY2017 and onwards is not comparable with historical data from 2012-2017.*

RESEARCH PROCESS

Sustainalytics has a dedicated research team specialized in analyzing companies' involvement in certain products and services. The following 4-step approach is used to produce the research:



1. **Develop research frameworks for Product Involvement:** When selecting Product Involvement areas and when defining criteria for involvement in each area, we aim to align with market expectations. For framework development, we solicit input from relevant in-house specialists (e.g. industry analysts, methodology experts, etc.).
2. **Screening for corporate involvement:** SMART technologies are leveraged for web-crawling, including screening annual reports, financial disclosure statements and corporate websites for relevant thematic involvement. This process is used to confirm existing research, as well as to identify new involvement.
3. **Analysis of involvement:** Written assessments outlining the nature of involvement, level of involvement and revenue analysis are drafted.
4. **Review:** Research is reviewed by senior analysts and framework development specialists.

RESEARCH CYCLE

- **Annual update:** Research is updated annually on an on-going basis and in line with companies' corporate reporting.
- **Quarterly updates:** New companies added to the universe as a result of quarterly rebalancing are researched and updated in client systems within three months of the rebalancing.

- **Corporate actions:** Corporate actions are processed in client systems on a quarterly basis in order to capture any involvement changes arising from mergers, acquisitions or other corporate actions.

DELIVERY CHANNELS

- **Data Services:** The product is available via a data feed, allowing for seamless data integration into client systems.
- **Global Access:** The product is available on our online platform, Global Access, including in our screening tool. This allows clients to upload portfolios and identify companies involved in any or all involvement areas.
- **Third-party data providers:** The product is available on the following platforms: Morningstar, Yahoo Finance, Factset, Bloomberg.

PRODUCT INVOLVEMENT AREAS

Below table provides an overview of available product involvement areas and their ESG concerns. More detailed information per involvement area can be found in the individual guidance documents.

	Abortion	This involvement area provides an assessment of whether companies engage in providing medical procedures which include abortion and contraceptive surgical procedures, as well as the production and distribution of abortifacients. Abortion can be considered controversial from a religious or ethical point of view, but also from a women's rights point of view. It is often seen as essentially a moral issue, concerning the commencement of human personhood, the rights of the fetus, and a woman's rights over her own body.
	Adult entertainment	This involvement area provides an assessment of whether companies derive revenue from adult entertainment. This includes producers of adult movies, cinemas that show adult movies, adult entertainment magazines, and the broadcasting of adult entertainment. Adult Entertainment can be considered controversial as it is claimed that it may undermine faith and family values. Other concerns are that the materials show the subordination of (wo)men.
	Alcoholic beverages	This involvement area provides an assessment of whether companies derive revenue from alcoholic beverages. These include producers of these beverages as well as retails and distributors and suppliers of alcohol-related products/services to alcoholic beverage manufacturers. Alcoholic beverages are considered controversial because excessive drinking can lead to social problems (addiction) and health problems. Furthermore, certain religions prohibit the use of intoxicants such as alcohol.
	Animal testing	This involvement area provides an assessment of whether companies are involved in conducting testing on animals, for pharmaceutical products or/and medical devices and/or biotechnology, as well as non-pharmaceutical

		products. This includes both cosmetics as well as chemicals such as pesticides or food additives. Animal testing can cause pain, suffering and distress to the animals involved. Additionally, the necessity of testing on animals is disputed.
	Arctic oil & gas exploration	This involvement area provides an assessment of whether companies derive revenues from oil and gas exploration in offshore Arctic regions. Exploring for oil and natural gas in the Arctic is controversial in the context of global climate change as well as because of the increased risk of environmental disasters.
	Cannabis	This involvement area provides an assessment of whether companies derive revenue from cannabis products that are used as plant-based medicine (medical cannabis) or as psychoactive drug (recreational cannabis). This includes producers and distributors of recreational and/or medical cannabis. Cannabis is considered controversial because it can create dependence and become addictive, and because of the health risks associated with heavy, long-term use. However, active substances of cannabis have been shown to have analgesic and anti-inflammatory properties, and are therefore used as treatment for chronic pain and for symptoms of difficult to treat conditions such as cancer, HIV/AIDS or multiple sclerosis.
	Contraceptives	This involvement area provides an assessment of whether companies are involved in the manufacturing of contraceptives. Contraceptives are considered controversial by people who believe that the union between people has procreation as a primary purpose. A second issue relates to whether certain forms of birth control act purely as a contraceptive or whether they have abortive intention or potential. Others view contraception as positive, as it allows women and couples to have the number of children they want, when they want them, which is everybody's right under the United Nations Declaration of Human Rights. Other benefits include lowering the number of teenage pregnancies and reducing pregnancy-related risks for vulnerable girls and women.
	Controversial weapons	This involvement area provides an assessment of whether companies are involved in the manufacturing of controversial weapons or components or services thereof. Controversial weapons, in contrast to conventional weapons, have a disproportionate and indiscriminate impact on civilian populations, sometimes even years after a conflict has ended. Certain controversial weapons are illegal, as their production and use are prohibited by international treaties and bans. In various countries there is legislation in place regarding investments in controversial weapons.
	Fur and specialty leather	This involvement area provides an assessment of whether companies derive revenue from fur or specialty leather. Fur and specialty leather are considered controversial as many alternatives are available for the production of consumer products, and the animal suffering and death are considered unnecessary.

	Gambling	This involvement area provides an assessment of whether companies derive revenue from gambling. This includes companies that offer gambling services (operation of casinos, lotteries, bookmaking, online gambling, etc.), gambling products (slot machines and other gambling devices) or supporting products/services to gambling operations. Gambling is considered controversial because it can lead to addiction, with sufferers exhibiting many of the same problems as those with substance addictions, creating severe social problems.
	GMO plants and seeds	This involvement area provides an assessment of whether companies derive revenue from the development and/or cultivation of genetically modified seeds and/or plants, as well as the growth of genetically modified crops. The use of genetically modified seeds is considered controversial because of health and socio-economic (patented bio-technology) concerns as well as environmental risks associated with the spreading of GMOs to other plants in the ecosystems. Other concerns are increasingly pesticide resistant weeds and insects due to increased use of chemicals.
	Human embryonic stem cells	This involvement area provides an assessment of whether companies engage in human embryonic stem cell research and technology development as well as the use of fetal cell lines for vaccines. The main area of controversy surrounding this research arises from the harvesting of stem cells for research. The most flexible stem cells are obtained from embryos and harvesting those stem cells is a process that destroys the embryo. Benefits of embryonic stem cell therapies are that they have been proposed for regenerative medicine and tissue replacement after injury or disease.
	Military contracting	This involvement area provides an assessment of whether companies derive revenue from the manufacturing of weapons or weapon components or from providing tailor-made products or services to the army or the defense industry. Military contracting, also referred to as the defense or armaments industry, can be considered controversial for reasons of pacifism, asymmetric defense-related purchasing power between countries, negative effects on economic growth and development particularly in post-conflict areas as a result of defense spending, potential issues around transparency and corruption, and its potential for (re-)fueling wars and conflicts.
	Nuclear power	This involvement area provides an assessment of whether companies are involved in the production or distribution of energy from nuclear sources or developing products or services that support the nuclear power industry. The use of Nuclear Power has advantages in that it has low CO2 emission, is not a scarce resource, and that some isotopes can be used for medical applications. Significant downsides are the substantial environmental damage and long-term health concerns for living organisms in case of accidents, nuclear waste disposal, and potential usage of waste as input for nuclear weapons.

 Oil & Gas	This involvement area provides an assessment of whether companies derive revenue from involvement in oil and gas industries. It includes the oil and gas upstream, midstream, downstream and power generation industries. Petrochemicals and distribution activities are not included. The Oil & Gas industry is controversial because of its high carbon intensity and the impact on climate change. Also, it is very resource intense in terms of land and water resources. Its impacts on ecosystems include spillages, waste management issues, and spontaneous flaring, which can lead to fines and are associated with reputational risks. In certain geographies oil & gas operations are associated with strained relations with local communities and with issues with governance and business practices. Health and safety issues are also important as repetitive accidents can lead to operational disruption or fatalities.
 Oil sands	This involvement area provides an assessment of whether companies are involved in oil sands extraction. Oil sands are considered unconventional because they are extremely carbon intensive, and dirty – their extraction methods cause air pollution ‘in situ’, as well as water withdrawal, and contamination from mining.
 Palm oil	This involvement area provides an assessment of whether companies derive revenue from palm oil production and/or distribution. Palm Oil is considered controversial because large areas of tropical forests and other ecosystems with high conservation values (in Africa, Asia & Latin America) have been cleared to make room for vast monoculture oil palm plantations – destroying critical habitat for many endangered species. Other major ESG concerns related to palm oil production are violations of human, labour and land rights.
 Pesticides	This involvement area provides an assessment of whether companies derive revenue from manufacturing or marketing pesticides including herbicides, fungicides and insecticides for agricultural application/crop protection. The use of pesticides is considered beneficial as it can help farmers prevent damage to their crops and control the number of invasive species. However, pesticides are considered controversial because of their potential toxicity to humans and animals and their bioaccumulation. Especially when applied for crop protection in agriculture and in large-scale horticulture these negative effects may occur. Recently certain pesticides have been associated with mass deaths of pollinators such as bees.
 Pork products	This involvement area provides an assessment of whether companies derive revenue from pork products. This includes producers and distributors of pork meat as well as providers of pork-related products/services. Pork products are considered controversial for Islamic investors that abide by the Sharia law, because it is one of the forbidden foods.
 Predatory lending	This involvement area provides an assessment of whether companies derive revenue from exploitive lending practices. Predatory Lending is considered controversial due to its questionable or immoral business ethics and the potential socio-economic impacts of high interest rates and/or unfavorable terms on borrowers.

	Private prisons	This involvement area provides an assessment of whether companies derive revenue from owning or operating private prisons. This includes immigration detention centres, and provision of in-house correctional or ancillary services. Private prisons are considered controversial because the rights of inmates can be compromised; targeted cost cutting can result in poorer services and conditions; and the business model of private prisons is linked to an increase in the incarcerated population.
	Riot control	This involvement area provides an assessment of whether companies are involved in the manufacturing of protection equipment and/or riot control weapons. The primary concern with riot control is that crowds are sometimes suppressed violently, leading to injury or death of civilians.
	Shale energy	This involvement area provides an assessment of whether companies derive revenue from shale energy (gas and/or oil) extraction and/or production. Shale energy production involves environmental risks like water pollution and carbon emissions. Rock fracture, fracking, is needed to make natural gas flow through the shale, which poses environmental concerns due to its potential effects on the watershed. Shale energy is also associated with slightly higher carbon emissions than conventional resources.
	Small arms	This involvement area provides an assessment of whether companies derive revenue from firearms. It includes manufacturers of firearm weapons such as guns, rifles, and pistols, manufacturers of components of these weapons and retailers. Firearms can be considered controversial as they are reported to be a major factor in the increase of armed conflict worldwide. They are the weapon of choice for many terrorist groups around the world and often hinder smoother rebuilding and development after a conflict has ended. Besides the loss of human life and physical harm, armed violence also has significant (direct and indirect) economic costs.
	Thermal coal	This involvement area provides an assessment of whether companies derive revenue from mining thermal coal, generating electricity from thermal coal or providing supporting products or services for thermal coal extraction. On a lifecycle basis thermal coal is more carbon intensive than other fossil fuel sources, while from an energy generation perspective it is easily substitutable. Thermal coal, also known as energy coal, or steam coal, is mainly used in power generation.
	Tobacco products	This involvement area provides an assessment of whether companies derive revenue from tobacco products including cigarettes, cigars, tobacco, electronic cigarettes, paper used by end consumers for rolling cigarettes, filters, snuff tobacco, etc. It includes tobacco products manufacturers, retailers and distributors, as well as companies providing tobacco-related products or services. Tobacco is considered controversial because of the negative health consequences (cancer) of long-term use of tobacco products, also leading to substantial medical costs for society. Tobacco companies are exposed to



Whale meat

significant financial and reputational risks as a result of legal cases and class actions brought against them.

This involvement area provides an assessment of whether companies derive revenue from whale meat production.

Whaling is considered controversial since the number of whales has declined increasingly during years of overexploitation and some species are at the point of becoming extinct. The controversy on an ethical level also concerns the suffering that the animals are subjected to when hunted.

INVOLVEMENT AREAS FRAMEWORKS

Below table provides an overview of the different categories of involvement per area, as well as available revenue ranges and thresholds, where available. Proxies used for each area are also provided. More detailed information can be found in the individual guidance documents.

Cat. ID	Category of Involvement	Description	Level of Involvement (Ranges)				
ABORTION			Proxy: revenue data not available				
AB1	Operations	The company owns and/or operates one or more acute care hospitals or surgical centers.	n/a	n/a	n/a	n/a	n/a
AB2	Significant ownership (operations)	The company owns 10-50 per cent of another company with involvement in owning and/or operating one or more acute care hospitals or surgical centers.	n/a	n/a	n/a	n/a	n/a
AB3	Production	The company manufactures drugs that have abortifacient properties.	n/a	n/a	n/a	n/a	n/a
AB4	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in manufactures drugs that have abortifacient properties.	n/a	n/a	n/a	n/a	n/a

ADULT ENTERTAINMENT			Proxy: revenues Percentage of revenues data available.				
AE1	Production	The company is involved in the production of adult entertainment and/or owns/operates adult entertainment establishments.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AE2	Significant ownership (Production)	The company owns 10-50 per cent of another company with involvement in the production of adult entertainment and/or owns/operates adult entertainment establishments.	n/a	n/a	n/a	n/a	n/a
AE3	Distribution	The company is involved in the distribution of adult entertainment materials.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AE4	Significant ownership (Distribution)	The company owns 10-50 per cent of another company with involvement in the distribution of adult entertainment.	n/a	n/a	n/a	n/a	n/a
ALCOHOLIC BEVERAGES			Proxy: revenues Percentage of revenues data available.				
AL1	Production	The company manufactures alcoholic beverages.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AL2	Significant ownership (Production)	The company owns 10-50 per cent of another company with involvement in manufacturing alcoholic beverages.	n/a	n/a	n/a	n/a	n/a
AL3	Related Products/Services	The company is a supplier of alcohol-related products/services to alcoholic beverage manufacturers.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AL4	Significant ownership (Related products/services)	The company owns 10-50 per cent of another company with involvement in the supply of related products/services to alcoholic beverage manufacturers.	n/a	n/a	n/a	n/a	n/a
AL5	Retail	The company derives revenues from the distribution and/or retail sale of alcoholic beverages.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AL6	Significant ownership (Retail)	The company owns 10-50 per cent of another company with involvement in the distribution and/or retail of alcoholic beverages.	n/a	n/a	n/a	n/a	n/a
ANIMAL TESTING			Proxy: revenue data not available				
AT1	Pharmaceutical products	The company conducts animal testing for pharmaceutical products, medical devices and biotechnology.	n/a	n/a	n/a	n/a	n/a
AT2	Significant ownership Pharmaceutical products	The company has a significant ownership (10-50%) in a company that conducts animal testing for pharmaceutical products, medical devices and biotechnology.	n/a	n/a	n/a	n/a	n/a
AT3	Suspected involvement Pharmaceutical products	Based on the company's activities and products, the company is likely to be involved in animal testing for	n/a	n/a	n/a	n/a	n/a

		pharmaceutical products, medical devices and biotechnology.					
AT4	Non-pharmaceutical products	The company conducts animal testing for non-pharmaceutical products.	n/a	n/a	n/a	n/a	n/a
AT5	Significant ownership (Non-pharmaceutical products)	The company has a significant ownership (10-50%) in a company that conducts animal testing for non-pharmaceutical products.	n/a	n/a	n/a	n/a	n/a
AT6	Suspected involvement Non-pharmaceutical products	Based on the company's activities and products, the company is likely to be involved in animal testing for non-pharmaceutical products.	n/a	n/a	n/a	n/a	n/a
ARCTIC OIL & GAS EXPLORATION			Proxy: revenues Percentage of revenues data available.				
AC1	Extraction	The company is involved in oil and gas exploration in Arctic regions.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
AC2	Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in oil and gas exploration in Arctic regions.	n/a	n/a	n/a	n/a	n/a
CANNABIS			Proxy: revenues Percentage of revenues data available.				
CB1	Production (Medical Cannabis)	The company is involved in the development and/or cultivation of medical cannabis.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
CB2	Significant ownership (Production Medical Cannabis)	The company owns 10-50 per cent of another company with involvement in the development and/or cultivation of medical cannabis.	n/a	n/a	n/a	n/a	n/a
CB3	Retail (Medical Cannabis)	The company derives revenues from the distribution and/or retail sale of medical cannabis.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
CB4	Significant ownership (Retail Medical Cannabis)	The company owns 10-50 per cent of another company with involvement in the distribution and/or retail sale of medical cannabis.	n/a	n/a	n/a	n/a	n/a
CB5	Production (Recreational Cannabis)	The company is involved in the development and/or cultivation of cannabis for recreational purposes.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
CB6	Significant ownership (Production Recreational Cannabis)	The company owns 10-50 per cent of another company with involvement in the development and/or cultivation of cannabis for recreational purposes.	n/a	n/a	n/a	n/a	n/a
CB7	Retail (Recreational Cannabis)	The company derives revenues from the distribution and/or retail sale of cannabis for recreational purposes.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
CB8	Significant ownership	The company owns 10-50 per cent of another company with involvement in the distribution and/or retail sale of cannabis	n/a	n/a	n/a	n/a	n/a

	(Recreational Cannabis)	for recreational purposes.					
CONTRACEPTIVES			Proxy: revenue data not available				
CO1	Production	The company manufactures contraceptives.	n/a	n/a	n/a	n/a	n/a
CO2	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in manufacturing contraceptives.	n/a	n/a	n/a	n/a	n/a
CONTROVERSIAL WEAPONS			Proxy: revenue data not available				
CW1	Tailor-made and essential	The company is involved in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon.	n/a	n/a	n/a	n/a	n/a
CW2	Significant ownership (Tailor-made and essential)	The company is involved, through corporate ownership, in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon.	n/a	n/a	n/a	n/a	n/a
CW3	Non tailor-made or non essential	The company provides components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon.	n/a	n/a	n/a	n/a	n/a
CW4	Significant ownership (non tailor-made or non essential)	The company provides, through corporate ownership, components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon.	n/a	n/a	n/a	n/a	n/a
FUR AND SPECIALTY LEATHER			Proxy: revenues Percentage of revenues data available.				
FL1	Production	The company manufactures products made from fur or specialty leather.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FL2	Significant ownership (Production)	The company owns 10-50 per cent of another company with involvement in manufacturing products made from fur or specialty leather.	n/a	n/a	n/a	n/a	n/a
FL3	Retail (≥10% total revenues)	The company derives 10 per cent or more of its revenues from the distribution and/or retail sale (>10% total revenues) of products made from fur or specialty leather.	n/a	n/a	10-24.9%	25-49.9%	50-100%
FL4	Significant ownership (Retail)	The company owns 10-50 per cent of another company with involvement in the distribution and/or retail sale of products made from fur or specialty leather.	n/a	n/a	n/a	n/a	n/a

GAMBLING			Proxy: revenues Percentage of revenues data available.				
GB1	Operations	The company owns and/or operates a gambling establishment.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
GB2	Significant ownership (Operations)	The company owns 10-50 per cent of another company with involvement in owning and/or operating a gambling establishment.	n/a	n/a	n/a	n/a	n/a
GB3	Specialized Equipment	The company manufactures specialized equipment used exclusively for gambling.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
GB4	Significant ownership (Specialized Equipment)	The company owns 10-50 per cent of another company with involvement in manufacturing specialized equipment used exclusively for gambling.	n/a	n/a	n/a	n/a	n/a
GB5	Supporting Products/Services	The company provides supporting products/services to gambling operations.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
GB6	Significant ownership (Supporting Products/Services)	The company owns 10-50 per cent of another company with involvement in providing supporting products/services to gambling operations.	n/a	n/a	n/a	n/a	n/a
GENETICALLY MODIFIED PLANTS AND SEEDS			Proxy: revenues Percentage of revenues data available.				
GM1	Development	The company is involved in the development and/or cultivation of genetically modified seeds and/or plants.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
GM2	Significant ownership (Development)	The company owns 10-50 per cent of another company with involvement in the development and/or cultivation of genetically modified seeds and/or plants.	n/a	n/a	n/a	n/a	n/a
GM3	Growth	The company grows genetically modified crops.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
GM4	Significant ownership (Growth)	The company owns 10-50 per cent of another company with involvement in growing genetically modified crops.	n/a	n/a	n/a	n/a	n/a
HUMAN EMBRYONIC STEM CELLS			Proxy: revenue data not available				
SC1	Use of human embryonic stem cells	The company is involved in the use of human embryonic stem cells.	n/a	n/a	n/a	n/a	n/a
SC2	Significant ownership (use of human embryonic stem cells)	The company owns 10-50 per cent of another company with involvement in the use of human embryonic stem cells.	n/a	n/a	n/a	n/a	n/a
SC3	Use of fetal cell lines	The company is involved in the use of fetal cell lines for vaccine or biologics development.	n/a	n/a	n/a	n/a	n/a
SC4	Significant ownership (use of fetal cell lines)	The company owns 10-50 per cent of another company with involvement in the	n/a	n/a	n/a	n/a	n/a

		use of fetal cell lines for vaccine or biologics development.					
SC5	Technology development	The company develops technologies that enable human embryonic stem cell research.	n/a	n/a	n/a	n/a	n/a
SC6	Significant ownership (technology development)	The company owns 10-50 per cent of another company with involvement in the development of technologies that enable human embryonic stem cell research.	n/a	n/a	n/a	n/a	n/a
MILITARY CONTRACTING			Proxy: revenues Percentage of revenues data available.				
MC1	Weapons	The company manufactures military weapon systems and/or integral, tailor-made components for these weapons.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
MC2	Significant ownership (Weapons)	The company owns 10-50 per cent of another company with involvement in manufacturing military weapon systems and/or integral, tailor-made components for these weapons.	n/a	n/a	n/a	n/a	n/a
MC3	Weapon related products and/or services	The company provides tailor-made products and/or services that support military weapons.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
MC4	Significant ownership (weapon-related products and/or services)	The company owns 10-50 per cent of another company with involvement in tailor-made products and/or services that support military weapons.	n/a	n/a	n/a	n/a	n/a
MC5	Non-weapon related products and/or services	The company provides non-weapons related tailor-made products and/or services to the military or defence industry. Products or services in this category are customised for military application, but are not used for lethal and offensive purposes, nor do they support offensive weapon systems.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
MC6	Significant ownership (non-weapon-related products and/or services)	The company owns 10-50 per cent of another company with involvement in non-weapons related tailor-made products and/or services to the military or defence industry.	n/a	n/a	n/a	n/a	n/a
NUCLEAR POWER			Proxy: revenues Percentage of revenues data available. Percentage of production capacity data for NP1 - Production category of involvement also available.				
NP1	Production	The company produces nuclear power.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
NP2	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in the production of nuclear power.	n/a	n/a	n/a	n/a	n/a

NP3	Supporting Products and Services	The company provides products/services that support the nuclear power industry.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
NP4	Significant ownership (supporting products/services)	The company owns 10-50 per cent of another company with involvement in the provision of products/services that support the nuclear power industry.	n/a	n/a	n/a	n/a	n/a
NP5	Distribution	The company distributes electricity generated from nuclear power.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
NP6	Significant ownership (distribution)	The company owns 10-50 per cent of another company with involvement in the distribution of electricity generated from nuclear power.	n/a	n/a	n/a	n/a	n/a
OIL & GAS			Proxy: revenues Percentage of revenues data available. Percentage of production capacity data for the OG5 - Generation category of involvement also available.				
OG1	Production	The company is involved in oil and gas exploration, production, refining, transportation and/or storage. Subcategories: - Exploration and Production - Refining - Transportation - Storage	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
OG2	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in exploration, production, refining, transportation and storage of oil and/or gas.	n/a	n/a	n/a	n/a	n/a
OG3	Supporting Products/Services	The company provides tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
OG4	Significant ownership (Supporting Products/Services)	The company owns 10-50 per cent of another company with involvement in the provision of tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.	n/a	n/a	n/a	n/a	n/a
OG5	Generation	The company generates electricity from oil and/or gas.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
OG6	Significant ownership (generation)	The company owns 10-50 per cent of another company with involvement in the generation of electricity from oil and/or gas.	n/a	n/a	n/a	n/a	n/a

OIL SANDS			Proxy: revenues Percentage of revenues data available. Percentage of production capacity data for OS1- Extraction category of involvement also available.				
OS1	Extraction	The company extracts oil sands.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
OS2	Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in extraction of oil sands.	n/a	n/a	n/a	n/a	n/a
PALM OIL			Proxy: revenues Percentage of revenues data available.				
PM1	Production and distribution	The company is involved in the production and/or distribution of palm oil.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PM2	Significant ownership (production and distribution)	The company owns 10–50 per cent of a company that is involved in the production and/or distribution of palm oil.	n/a	n/a	n/a	n/a	n/a
PESTICIDES			Proxy: revenues Percentage of revenues data available.				
PE1	Production	The company manufactures pesticides.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PE2	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in the manufacturing of pesticides.	n/a	n/a	n/a	n/a	n/a
PE3	Retail (≥10% total revenues)	The company derives 10 per cent or more of its revenues from the distribution and/or retail sale of pesticides.	n/a	n/a	10-24.9%	25-49.9%	50-100%
RE4	Significant ownership (retail)	The company owns 10-50 per cent of another company with involvement in the distribution and/or retail sale (≥10% total revenues) of pesticide	n/a	n/a	n/a	n/a	n/a
PORK PRODUCTS			Proxy: revenues Percentage of revenues data available.				
PP1	Production	The company manufactures pork products.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PP2	Significant ownership (production)	The company owns 10–50 per cent of another company which is involved in the manufacture of pork products.	n/a	n/a	n/a	n/a	n/a
PP3	Related Products/ Services	The company provides pork-related products/services.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PP4	Significant ownership (related products/ services)	The company owns 10–50 per cent of another company which is involved in pork-related products/services.	n/a	n/a	n/a	n/a	n/a

PP5	Retail (≥10% total revenues)	The company derives 10 per cent or more of its revenues from the distribution and/or retail sale of pork products.	n/a	n/a	10-24.9%	25-49.9%	50-100%
PP6	Significant ownership (retail)	The company owns 10–50 per cent of another company which derives 10 per cent or more of its revenues from the distribution and/or retail sale of pork products.	n/a	n/a	n/a	n/a	n/a
PREDATORY LENDING			Proxy: revenues Percentage of revenues data available.				
PL1	Operations	The company is involved predatory lending activities.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PL2	Significant ownership (Operations)	The company owns 10-50 per cent of another company with involvement predatory lending activities.	n/a	n/a	n/a	n/a	n/a
PRIVATE PRISONS			Proxy: revenues Percentage of revenues data available.				
PS1	Operations	The company owns and/or operates private prisons.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
PS2	Significant ownership (Operations)	The company owns 10-50 percent of another company with involvement in owning and/or operating private prisons.	n/a	n/a	n/a	n/a	n/a
RIOT CONTROL			Proxy: revenue data not available				
RC1	Protection equipment and riot control weapons	The company manufactures protection equipment and riot control weapons.	n/a	n/a	n/a	n/a	n/a
RC2	Significant ownership (Protection equipment and riot control weapons)	The company owns 10-50 per cent of another company with involvement in manufacturing protection equipment and riot control weapons.	n/a	n/a	n/a	n/a	n/a
RC3	Riot control weapons	The company manufactures riot control weapons.	n/a	n/a	n/a	n/a	n/a
RC4	Significant ownership (Riot control weapons)	The company owns 10-50 per cent of another company with involvement in manufacturing riot control weapons.	n/a	n/a	n/a	n/a	n/a
RC5	Protection equipment	The company manufactures protection equipment.	n/a	n/a	n/a	n/a	n/a
RC6	Significant ownership (Protection equipment)	The company owns 10-50 per cent of another company with involvement in manufacturing protection equipment.	n/a	n/a	n/a	n/a	n/a

SHALE ENERGY			Proxy: revenues Percentage of revenues data available.				
SE1	Extraction	The company is involved in shale energy exploration and/or production.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
SE2	Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in shale energy exploration and/or production.	n/a	n/a	n/a	n/a	n/a
SMALL ARMS			Proxy: revenues Percentage of revenues data available.				
FA1	Civilian customers (Assault weapons)	The company manufactures and sells assault weapons to civilian customers.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA2	Significant ownership (Civilian customers – assault weapons)	The company owns 10-50 per cent of another company that manufactures and sells assault weapons to civilian customers.	n/a	n/a	n/a	n/a	n/a
FA3	Military/law enforcement customers	The company manufactures and sells small arms to military/law enforcement.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA4	Significant ownership (Military/law enforcement customers)	The company owns 10-50 per cent of another company manufactures and sells small arms to military/law enforcement.	n/a	n/a	n/a	n/a	n/a
FA5	Key components	The company manufactures and sells key components of small arms.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA6	Significant ownership (Key components)	The company owns 10-50 per cent of another company that manufactures and sells key components of small arms.	n/a	n/a	n/a	n/a	n/a
FA7	Retail/ Distribution (assault weapons)	The company is involved in the retail and/or distribution of assault weapons.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA8	Significant ownership (Retail/ Distribution – assault weapons)	The company owns 10-50 per cent of another company that is involved in retail and/or distribution of assault weapons.	n/a	n/a	n/a	n/a	n/a
FA9	Retail/distribution (Non-assault weapons)	The company is involved in the retail and/or distribution of small arms (non-assault weapons).	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA10	Significant ownership (Retail/ Distribution – non-assault weapons)	The company owns 10-50 per cent of another company that is involved in retail and/or distribution of small arms (assault weapons).	n/a	n/a	n/a	n/a	n/a

FA11	Civilian customers (Non-assault weapons)	The company manufactures and sells small arms (non-assault weapons) to civilian customers.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
FA12	Significant ownership (Civilian customers – non-assault weapons)	The company owns 10-50 per cent of another company that manufactures and sells small arms (non-assault weapons) to civilian customers.	n/a	n/a	n/a	n/a	n/a
THERMAL COAL			Proxy: revenues Percentage of revenues data available. Percentage of production capacity data for TC3 - Power Generation category of involvement also available.				
TC1	Extraction	The company extracts thermal coal.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TC2	Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in the extraction of thermal coal.	n/a	n/a	n/a	n/a	n/a
TC3	Power Generation	The company generates electricity from thermal coal. (additional proxy: generating capacity)	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TC4	Significant ownership (power generation)	The company owns 10-50 per cent of another company with involvement in the generation of electricity from thermal coal.	n/a	n/a	n/a	n/a	n/a
TC5	Supporting Products/Services	The company provides tailor-made products and services that support thermal coal extraction.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TC6	Significant ownership (supporting products/services)	The company owns 10-50 percent of another company with involvement in the provision of tailor-made products and services that support thermal coal extraction.	n/a	n/a	n/a	n/a	n/a
TOBACCO			Proxy: revenues Percentage of revenues data available.				
TP1	Production	The company manufactures tobacco products.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TP2	Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in manufacturing tobacco products.	n/a	n/a	n/a	n/a	n/a
TP3	Related Products/Services	The company supplies tobacco-related products/services.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TP4	Significant ownership (related products/services)	The company owns 10-50 per cent of another company with involvement in supplying tobacco-related products/services.	n/a	n/a	n/a	n/a	n/a
TP5	Retail	The company derives revenues from the distribution and/or retail sale of tobacco products.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
TP6	Significant ownership (retail)	The company owns 10-50 per cent of another company with involvement in the	n/a	n/a	n/a	n/a	n/a

		distribution and/or retail sale of tobacco products.					
WHALE MEAT			Proxy: revenue Percentage of revenues data available.				
WM1	Whale meat processing	The company processes whale meat.	0-4.9%	5-9.9%	10-24.9%	25-49.9%	50-100%
WM2	Significant ownership (whale meat processing)	The company owns 10-50 per cent of another company with involvement in processing whale meat.	n/a	n/a	n/a	n/a	n/a