

PetroMall

**Putting relevant science and engineering back
into every decision made!**

Responsible Investment in Oil and Gas

December 6th 2019

Oil and Gas Reputation at Risk

- Low market valuations
- Market liquidity challenged
- Price takers- commodity view
- High levels of debt- US Shale E&P's
- Environmental risk
- Social Impact risk
- Governance challenges- board oversight, exec comp, risk mgmt.?

And Climate Change- Are we to blame?

Repsol and Enagasan announce net carbon neutral by 2050

Funds \$12tn in US & \$35tn Globally in ESG

Growth of ESG Incorporation by Money Managers 2005 – 2018

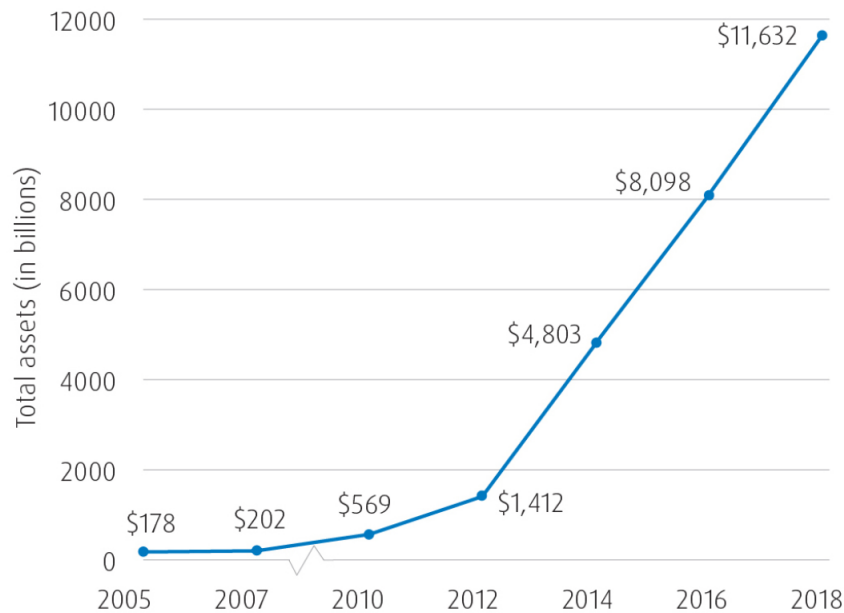
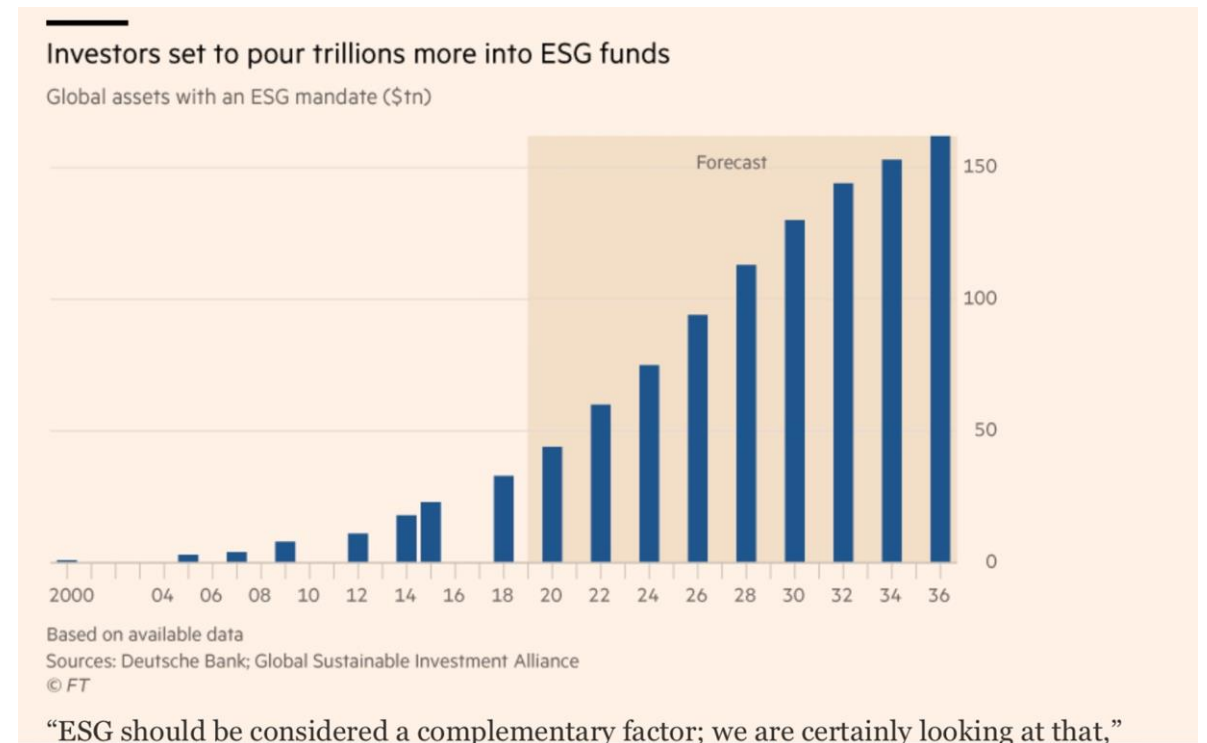
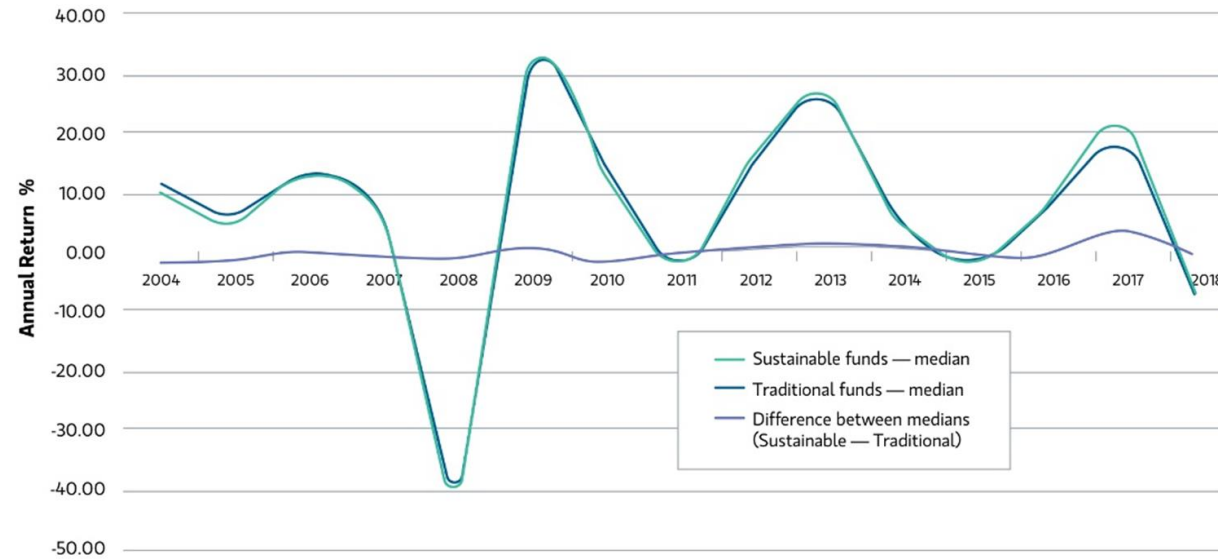


Figure 1: US SIF Foundation's 2018 Report on US Sustainable, Responsible and Impact Investing Trends



ESG/Sustainable Funds Performance

Median Total Returns of Sustainable and Traditional Funds, 2004–2018:



Difference in median returns (Sustainable - Traditional)	-1.50	-1.17	0.18	-0.37	-0.80	0.84	-1.37	-0.08	0.63	1.38	1.18	0.00	-0.23	3.63	-0.03
	**						**							***	
Statistical Significance	99%+	***		95%+	**		90%+	*							

Source: Morgan Stanley analysis of Morningstar data, 2019.

July 2019 O&G UK(Industry Association) View

- The UK offshore oil and gas industry has delivered stable environmental performance whilst the sector has increased production levels, according to a flagship report published today (Wednesday, July 24) by OGUK.
- The 2019 Environment Report,to the end of 2018.
- The insight also provides a summary of activities undertaken by OGUK groups over the last year to support the development of new legislation, whilst **acknowledging the industry's critical role in achieving a net-zero future and its integral part in transitioning to a low carbon economy.**
- Key findings include:
 - There was a **three per cent reduction in CO2 emissions** in 2018, compared to 2017 whilst production increased by 4 per cent year-on-year
 - A total of 74 per cent CO2 emissions were from power generation
 - Upstream oil and gas operations contributed **3 per cent (14.65 million tonnes CO2e)** of total UK greenhouse gas emissions
 - Produced water discharged to sea fell by 3 per cent compared to 2017
 - 2018 saw a decrease in drill cuttings discharged to sea, with **21,450 tonnes discharged**
 - Just under **120,000 tonnes of waste** was generated in 2018, a 22 per cent decrease on 2017
 - 39 per cent increase in decommissioning waste from 2017 – however, 72 per cent was either re-used, recycled or used for power generation
 - **73% of chemicals discharged were classed as low hazard**, or PLONOR (Pose Little or No Risk to the Environment)
 - There was a 65 per cent decrease in accidental oil releases compare to 2017 – which is the lowest annual total since 2011
 - 95% of the mass of chemicals accidentally released were of PLONOR or low hazard chemicals, and less than 1kg of the highest hazard chemicals were released.

ESG Scorecards

PILLAR	CATEGORY SCORE	CATEGORY SCORES*	CATEGORY WEIGHTS	SUM OF CATEGORY WEIGHTS	FORMULA: SUM OF CATEGORY WEIGHTS	NEW CATEGORY WEIGHTS*	FORMULA: NEW CATEGORY WEIGHTS	PILLAR SCORES	FORMULA: PILLAR SCORES
Environmental	Resource use	72.57	11%	34%	(11%+12%+11%)	32.35%	(11%/34%)	77.84	72.56637*0.32352 94+86.504425*0.3 529412+73.67256* 0.3235294
Environmental	Emissions	86.50	12%			35.29%	(12%/34%)		
Environmental	Innovation	73.67	11%			32.35%	(11%/34%)		
Social	Workforce	90.93	16%	35.50%	(16%+4.5%+8%+7%)	45.07%	(16%/35.5%)	75.41	
Social	Human rights	78.10	4.50%			12.68%	(4.5%/35.5%)		
Social	Community	77.65	8%			22.54%	(8%/35.5%)		
Social	Product responsibility	35.62	7%	30.50%	(19%+7%+4.5%)	19.72%	(7%/35.5%)	50.36	
Corporate Governance	Management	47.25	19%			62.30%	(19%/30.5%)		
Corporate Governance	Shareholders	32.87	7%			22.95%	(7%/30.5%)		
Corporate Governance	CSR strategy	90.67	4.50%			14.75%	(4.5%/30.5%)		


QUALCOMM Incorporated

Communications Equipment | United States | NAS:QCOM

20.2 /100 Medium



Attribution Details

Issue Name	Contribution to					Management Score	ESG Risk Rating	Risk Category
	ESG Risk Rating	Subindustry Exposure	Company Exposure	Excess Exposure	Manageable Risk Factor			
Corporate Governance	27.5%	9.0	9.0	-	100%	48.0	4.7	<div><div></div><div></div><div></div><div></div></div>
 Business Ethics	25.4%	6.0	8.8	2.8	95%	17.3	7.3	<div><div></div><div></div><div></div><div></div></div>
Human Capital	18.3%	6.0	6.3	0.3	95%	54.6	3.0	<div><div></div><div></div><div></div><div></div></div>
Data Privacy and Security	11.0%	5.0	4.5	-0.5	80%	50.0	2.7	<div><div></div><div></div><div></div><div></div></div>
Carbon - Own Operations	7.8%	3.0	2.6	-0.5	100%	57.6	1.1	<div><div></div><div></div><div></div><div></div></div>
Product Governance	5.5%	2.0	1.8	-0.2	100%	65.0	0.6	<div><div></div><div></div><div></div><div></div></div>
Human Rights - Supply Chain	4.6%	2.0	1.9	-0.1	80%	71.9	0.8	<div><div></div><div></div><div></div><div></div></div>
Overall	100.0%	-	34.8	-	-	44.4	20.2	Medium

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Contacts

Greg.Coleman@petromall.org Phone +447788566028

David.Bamford@petromall.org Phone +447776226951

Website: www.petromall.org