



PREFACE

MPRC100 is a list of top-100 Oil & Gas Services and Equipment (OGSE) companies in Malaysia, ranked based on their revenue. We conducted our study by obtaining financial information of OGSE companies that are registered in Malaysia on a consolidated basis. The purpose of this list is to highlight the growth of OGSE companies in the industry and provide a point of reference for industry players, potential investors and other stakeholders.

Within this document, we have mapped the industry segments where the MPRC100 companies are operating in. You will also find an industry commentary, which attempts to provide an aggregated view of the OGSE industry in Malaysia, as well as supplemental analysis.

ABOUT MPRC

Malaysia Petroleum Resources Corporation (MPRC), an agency under the Prime Minister's Department, was established in 2011. The agency is responsible for growing Malaysian OGSE firms and leveraging on Malaysia's strategic geographical location to enhance its position as the preferred hub for OGSE activities in the region. As the OGSE development agency, MPRC helps to promote, catalyse and globalise the country's OGSE capabilities in the upstream, midstream and downstream segments.

REPORT PREPARED BY: Syed Azlan Syed Ibrahim Eric Chua Norman Matthieu Vanhaecke William Goh Adlina Mohd Adnan

EDITORIAL COMMITTEE: Datuk Shahrol Halmi Ir Dr Shahreen Madros



OUR VISION AND STRATEGIC THRUSTS

Making Malaysia the number one Oil & Gas services and equipment hub in the Asia Pacific Region.

Investment & Finance

We assist you in your search for business partners, facilitate and provide practical advice on your investment interests in Malaysia.

How we can help vou?

Promotion & Business Opportunities

We promote Malaysia's OGSE industry and facilitate your regional expansion into the Asia Pacific region from Malaysia.



Human Capital & Technology Development

We support the development of quality talents and technology for the Oil & Gas industry.

Industry & Market Enabler

We support the OGSE industry's growth by providing market intelligence to support a competitive market environment.

Images courtesy of Petroliam Nasional Berhad (PETRONAS). All rights reserved

FOREWORD

2015 was marked as the first full year of low oil prices. Adjustments had to be made in the transition from high to lower oil prices. What used to be profitable may no longer be and the pressure to trim costs will become ever more important.

In the past decade of elevated oil prices, global upstream oil investments grew. We also saw how the high levels of activity and stable growth during this period sent the OGSE sector into a spending frenzy to build up resources in terms of manpower and assets. At the same time, high oil prices With global oil majors inuring themselves to the "real" normal, services and equipment players have to respond accordingly. Companies that bring game-changing solutions or distinctive technologies to support operators' current agenda will emerge as winners

also encouraged new technological breakthroughs in shale oil extraction, unlocking vast amounts of reserves particularly in the US.

Then came the plunge. From its peak of USD115 a barrel in July 2014, oil has more than halved in value. OPEC's sway over the oil markets has now been replaced by shale players. In this "real" normal, it has become uneconomical for operators to maintain their previous levels of exploration and production.

With global oil majors inuring themselves to the "real" normal—keeping costs under control and staying fit at USD50 or less—services and equipment players have to respond accordingly. Those that only knew how to operate during the oil boom and fail to adjust would not sustain for long. Those that are cost competitive will survive. But we believe companies that bring *game-changing solutions* or *distinctive technologies* to support operators' current agenda will emerge as winners.

While Malaysian OGSE firms were not spared from the price declines, our analyses showed that MPRC100 companies fared better than their regional and international peers. This is attributed mainly to continued domestic upstream investments in the industry, albeit at a reduced quantum.

Based on our analyses, there is considerable diversity in the segments MPRC100 companies operate in as well. Compared to other regional OGSE players, Malaysian firms generally provide a wider range of services across the supply chain. This, as a whole, demonstrates the strength and potential of MPRC100 companies.

Ultimately, oil & gas is a cyclical business. The question is, what can be done to position Malaysian OGSE companies to become even more competitive in the new landscape.

To the companies in the FY2015 edition of MPRC100, congratulations for making it to the list. We know that it has been a tough year, but together we can shape a sustainable and rewarding future for the OGSE industry.

DATUK SHAHROL HALMI President / Chief Executive Officer Malaysia Petroleum Resources Corporation

OUR APPROACH

Our study is based on PETRONAS-licensed companies whose primary business is related to the OGSE sector. We also include listed companies with licensed subsidiaries/ associates. Companies are assessed based on their consolidated financial results for financial year (FY) 2015. We had an initial population of 3,956 companies for 2015. Our primary source of data is Companies Commission of Malaysia's (SSM) Corporate and Business Information Data (CBID) database, from which we obtained financial records of these companies. The analyses and study are based on data available as of October 2016. After applying our methodology (see page 24 and 25), we arrived at a final population of 1,866 OGSE companies. These companies are further categorised into the top 100 companies, 243 non-MPRC100 Mid-Tiers and 1,523 non-MPRC100 Small and Medium-sized Enterprises (SMEs).

MOVEMENT

Among the new entrants into this year's MPRC100 include MISC Berhad, whose Offshore Business unit has been increasing in revenue contribution, and thus, we now consider part of the population. The major gainers in this edition, in terms of ranking, include E.A. Technique (M) Berhad, Petroleum Geo-Services Exploration (M) Sdn. Bhd., Grade One Marine Shipyard Sdn. Bhd., Hyperwave Systems Engineering Sdn. Bhd., Newwin Engineering (M) Sdn. Bhd. and CMC Engineering Sdn. Bhd.

And and a construction of the construction of

							ical /	sical	Ma Velo	Mani	ring	Consulta	sical	cs Se	QC Serv	Desi	Platfor	Platfor	Con	Tank	Con	dns e	Inst	SSO /
Io.	Company Name		evenue RM mil)		PBT Margin (%)	TFA (RM mil)	Geologi	Geophysical	Field Develog Resevoir Man	Project Mana	Engineering	HSE Cor	Geophysical	Geomatics	GA/GC	Building	Major PI	Minor PI	Onshore	Onshore	Offshore	Offshore	Pipeline Insta	FSO / FPSO Oberator / C
		FY2015	Rank 2015	Rank 2014	FY2015	FY2015	EXP	LORA	rion									DE	EVELC	OPMEN	т			
1	MISC BERHAD	10,908.4	1	NA	23.5	36,791.3																		
2	SAPURAKENCANA PETROLEUM BERHAD	9,943.0	2	1	16.3	28,845.8																		
3	DIALOG GROUP BERHAD	2,358.2	3	3	15.7	1,741.0																		
4	BUMI ARMADA BERHAD	2,179.7	4	6	-7.9	14,916.0																		
5	WAH SEONG CORPORATION BERHAD	1,839.5	5	4	1.9	1,602.0																		
6	KNM GROUP BERHAD	1,641.3	6	8	7.6	2,803.8																		
7	MUHIBBAH ENGINEERING (M) BHD.	1,604.8	7	9	10.3	1,095.2																		
8	SCOMI ENERGY SERVICES BHD.	1,560.2	8	11	6.9	775.4																		
9	HALLIBURTON ENERGY SERVICES (MALAYSIA) SDN. BHD.	1,261.7	9	10	-8.8	460.9																		
0	SCHLUMBERGER WTA (MALAYSIA) SDN. BHD.	1,178.1	10	12	16.8	201.2		-	-	-					-	-								
11	INTEGRATED PETROLEUM SERVICES SDN. BHD.	1,093.1	11	NA	2.9	3.3						•												
12	NAM CHEONG DOCKYARD SDN BHD	944.2	12	7	-2.3	752.9			-	-		-												
13	UMW OIL & GAS CORPORATION BERHAD	839.9	13	14	-41.5	6,089.2																		
4	DAYANG ENTERPRISE HOLDINGS BHD.	778.6	14	16	26.1	2,751.1																		
15	TECHNIP MARINE (M) SDN. BHD.	722.6	15	NA	-12.0	34.5												-						
16	DAYA MATERIALS BERHAD	718.8	16	21	-0.4	862.5																		
17	PETRA ENERGY BHD.	654.8	17	22	9.5	495.0																		
18	ENSCO GERUDI (M) SDN. BHD.	652.1	18	13	2.4	1.8				-							-	-						
19	DELEUM BERHAD	649.4	19	19	11.0	308.8																		
	DOWELL SCHLUMBERGER (MALAYSIA)			18												-	-							
20	SDN. BHD.	625.4	20		7.1	191.5																		
21	SILK HOLDINGS BERHAD	596.0	21	NA	-3.5	2,304.5						_										•		_
22	BARAKAH OFFSHORE PETROLEUM BERHAD	592.6	22	15	0.9	299.8																		
23	E.A. TECHNIQUE (M) BERHAD	549.1	23	74	9.2	646.3																•		•
24	PANTECH GROUP HOLDINGS BERHAD	525.8	24	NA	11.2	239.3																		
25	ASIAFLEX PRODUCTS SDN. BHD.	525.6	25	38	8.2	782.7																		
	UZMA BERHAD	510.8	26	25	4.4	522.8																		•
27	MTU SERVICES (MALAYSIA) SDN. BHD.	488.7	27	37	23.2	34.0																		
28	ADVANCE GAS TURBINE SOLUTIONS SDN. BHD. TOYO ENGINEERING & CONSTRUCTION	419.3	28	NA	14.1	0.9																		
29	SDN. BHD.	413.9	29	28	9.3	38.8				•							•							
50	R.M. LEOPAD SDN. BHD.	408.4	30	48	36.2	42.0																		
31	YINSON HOLDINGS BERHAD	395.4	31	NA	71.0	1,603.1																		•
32	NAIM ENGINEERING SDN. BHD.	377.3	32	32	-5.6	129.6																		
33	MIE INDUSTRIAL SDN. BHD.	360.0	33	54	6.5	2.9				•								•						
54	ALAM MARITIM RESOURCES BERHAD	350.2	34	29	-5.7	827.8																		
35	EASTERN PACIFIC INDUSTRIAL CORPORATION BERHAD	335.4	35	31	24.6	779.3											\bullet						\bullet	
36	SCHLUMBERGER WELLOG (M) SDN. BHD.	305.6	36	57	6.9	0.8																		
37	MHS AVIATION BERHAD	300.7	37	30	-1.4	537.4																		
38	SCHLUMBERGER DRILLING SERVICES SDN. BHD.	284.7	38	26	0.3	133.7																		
39	ENSERV SDN. BHD.	273.5	39	40	8.0	12.8																		
10	SANKYU (MALAYSIA) SDN. BHD.	272.7	40	45	10.7	57.6																		
41	DESTINI BERHAD	270.1	41	70	9.4	296.6																		
12	ICON OFFSHORE BERHAD	266.6	42	39	-136.4	1,339.2																		
13	BOUSTEAD HEAVY INDUSTRIES CORPORATION BHD.	265.6	43	36	-1.5	348.9																		
	TRANSWATER API SDN. BHD.	243.6	44	55	6.4	10.7															•			
15	AKER ENGINEERING MALAYSIA SDN. BHD.	243.0	45	42	-11.0	9.9				-		•						-						
+5 16	PERISAI PETROLEUM TEKNOLOGI BHD.	214.8	46	89	-320.4	2,101.9					-	-		-										
	EMERSON PROCESS MANAGEMENT																							
17	(MALAYSIA) SDN. BHD.	211.3	47	52	16.1	3.6				-									-					
	PETROLEUM GEO-SERVICES EXPLORATION	210.4	48	114	-0.1	4.2																		
18	(M) SDN. BHD.						-					-			-									

🚖 Note: These are the MPRC registered companies whose detailed information is published in MPRC's Malaysia OGSE Catalogue



And the service of th

	F	ANKING	jS	8	5 (t'd)	Geological / Reservoir	Geophysical Services	Field Development / Resevoir Management Services	Project Management Consultancy	Engineering Consultancy	Consultancy	Geophysical Consultancy	Production / Upstream Consultancy	atics Services	de Services inc Design	Major Platform Fabricator	Minor Platform Fabricator	re Construction	re Tank Facilities	Offshore Constructions	Offshore Support Vessel Contractor	Pipeline Installation Contractor	FSO / FPSO Owner / Operator / Contractor	e
	No.	Company Name		evenue M mil)		PBT Margin (%)	TFA (RM mil)	Geolo	Geoph	Field Dev Resevoir	Projec	Engine	HSE C	Geopf	Produ		Building	Major	Minor	Onshore	Onshore	Offsho	Offsho	Pipelii	FSO / FP Operator	Subsea
	NO.		FY2015	Rank 2015	Rank 2014	FY2015	FY2015	EXP	LORA	TION									D	EVELO	OPME	т				
	51	KUALITI ALAM SDN. BHD.	191.0	51	80	32.6	139.7																			
*	52	PETROFAC E&C SDN. BHD.	188.9	52	50	7.6	3.0																			
	53	VELOSI (M) SDN. BHD.	181.4	53	44	1.9	3.2									•										_
	54	MISI SETIA OIL & GAS SDN. BHD.	179.6	54	NA	5.5	15.7																			
*	55	AECOM PERUNDING SDN. BHD.	163.9	55	76	8.3	3.4																			
*	56	CARIMIN PETROLEUM BERHAD	163.4	56	NA	-3.2	136.6																•			
*	57	OROGENIC HOLDINGS SDN. BHD.	163.2	57	49	6.7	52.7	•	•					•		•						•				
	58	HI-ESSENCE CABLE SDN. BHD.	159.0	58	NA	0.9	103.6																			
	59	CAMERON (MALAYSIA) SDN. BHD.	158.9	59	NA	25.4	20.1																			
		TUMPUAN MEGAH DEVELOPMENT SDN. BHD.	154.9	60	NA	1.0	9.1																			
	61	AKER SOLUTIONS APAC SDN. BHD.	154.8	61	62	11.2	13.9																			
	62	PERUNDING RANHILL WORLEY SDN. BHD.	154.5	62	65	0.2	0.0																			
	63	GRADE ONE MARINE SHIPYARD SDN. BHD.	153.0	63	194	15.4	298.7																			
	64 65	EP ENGINEERING SDN. BHD. YOKOGAWA KONTROL (MALAYSIA) SDN. BHD.	148.6 148.5	64 65	66 82	2.9 6.1	1.0																		_	
	66	BREDERO SHAW (MALAYSIA) SDN. BERHAD	146.5	66	23	4.0	39.0			-									-	-						
+	67	TRISYSTEMS ENGINEERING SDN. BHD.	139.8	67	103	17.6	8.9																			
	68	SHOREFIELD SDN. BHD.	131.2	68	NA	24.2	4.9															-				
+	69	BUREAU VERITAS (M) SDN.BHD.	127.4	69	93	-0.2	12.4																			
	70	ETD MAKMUR (M) SDN. BHD.	126.5	70	94	-5.4	3.7																			
	71	OCEANCARE CORPORATION SDN. BHD.	121.8	71	71	4.6	13.0																			
	72	MICROSITE ENTERPRISE SDN. BHD.	115.0	72	109	1.3	7.6											-	-				-			
*	73	HANDAL RESOURCES BERHAD	114.6	73	87	10.0	71.5																			
*	74	HYPERWAVE SYSTEMS ENGINEERING SDN. BHD.	113.5	74	137	2.1	3.3																			
	75	PRESTARIANG SYSTEMS SDN. BHD.	112.9	75	NA	26.9	14.5																			_
	76	INTEGRATED LOGISTICS SOLUTIONS SDN. BHD.	112.4	76	90	11.9	204.9																			
	77	TRACTORS PETROLEUM SERVICES SDN. BHD.	112.2	77	95	-0.2	4.5																			
*	78	TECHNIP CONSULTANT (M) SDN. BHD.	109.3	78	69	-13.8	21.3																			
*	79	MMC OIL & GAS ENGINEERING SDN. BHD.	108.2	79	NA	16.6	1.4																			
	80	ASIAN GEOS SDN. BHD.	107.2	80	85	-28.0	45.8																			
	81	AJANG SHIPPING SDN. BHD.	106.9	81	NA	9.8	273.4																•			
	82	JHW REELS SDN. BHD.	103.1	82	117	8.8	91.1																			
*	83	OGPC SDN. BHD.	101.9	83	112	28.6	10.1																			
*		TH HEAVY ENGINEERING BERHAD	100.5	84	34	-54.3	1,135.4																			
	85	BAYONG RESOURCES SDN. BHD.	100.1	85	91	3.4	0.5																			
	86	EWT TRANSFORMER SDN. BHD.	98.3	86	113	13.6	13.3										-									
	87	SDN. BHD.	97.7	87	123	-0.5	0.3																			
-	88	DIMENSION BID (M) SDN. BHD.	96.2	88	NA	11.8	77.7										_									
	89	PRISTINE POTENTIAL SDN. BHD.	94.8	89	144	2.3	0.0												•							
	90 91	ORKIM MARINE SDN. BHD. NEWWIN ENGINEERING (M) SDN. BHD.	94.0 92.9	90 91	121 170	13.5 6.7	6.7																		_	
		DURAGATE ENGINEERING & SERVICES																-				-				
	92	SDN. BHD.	91.9	92	130	1.0	2.1												-	-						
*	93	SYARIKAT BORCOS SHIPPING SDN. BHD.	90.5	93	88	-0.3	0.4																•			
	94	CMC ENGINEERING SDN. BHD.	89.2	94	174	15.8	30.1 0.5																			
	95 96	ALMITRA ENERGY SERVICES SDN. BHD. BERLIAN MCDERMOTT SDN. BHD.	88.7 85.9	95 96	99 68	-3.3	205.2																			
	96 97	SETEGAP VENTURES PETROLEUM SDN. BHD.	85.9	96 97	116	-3.3	40.9															•				
		TITAN OIL & GAS SDN. BHD.	83.8	98	NA	12.7	1.3																			
	99	SBN INDUSTRIES SDN. BHD.	82.3	99	142	0.9	6.7																			
		CLEARWAYS OFFSHORE DRILLING SDN. BHD.	82.0	100	72	10.1	0.0																			
		TOTAL	58,881.1				117,083.3	7	11	6	18	20	11	3	13	6	7 2	18	19	23	7	30	21	14	9	1
		lote. These are the MPPC registered companies																								_

🚖 Note: These are the MPRC registered companies whose detailed information is published in MPRC's Malaysia OGSE Catalogue

Drilling Rigs	Drilling Services	Well Services / Well Completions	Lab Services	Maintenance - Piping & Valve / Structural	Maintenance - E & I	Maintenance - Mechanical (Rotating)	Maintenance - Mechanical (Static)	Maintenance - Pipeline	Maintenance - Safety Equipment	Minor Fabrication & Repair	Underwater Services		Health, Safety, Environment (HSE) & Security	Manpower Services	Environmental Clean-Up / Waste Disposal	Marine Vessel Services	Helicopter / Air Transportation Services	Land Transportation Services	Warehousing & Storage Services	Cargo Tankers	Decommissioning Contractor	Chemicals Supply and Services	Subsea	Drilling Equipment	Electrical	НИАС	ICT	Instrumentation	Insulation	Marine System	Mechanical	Pipelines	Riser	Rotating Equipments	Safety System	Structural	Transportations	Valves	Warehouse Equipment	Workshop Tools
							•			P	RODU	стю	•			•				C	ECON	1								PR	ODUC	TS								
	•							•						•																										
				•			•																					•										•		
	•		•								•		•	•											•			•												
		•																						•														•		
		•			•									•									•	•				•			•			٠						
														•								•								•								•		•
					•								•			•									•			•										•		
					•			•		•		•	•	•		•																							•	
										•				•					•	•																				
														•		•									•		•	•		•		•								
																												•									•			
														•																										
														•																										
																									•		•											•		•
	•													•																										
				•			•			•				•						•																				
																•									•							•								
																									•		•	•												
	•	•																			•				•						•									
					-					•		•													•						•	•					-			
10	19	20	2	20	22		18	17	1	20	11	25	13	33	2	19	2	7	4	4	20	9	6	9	21	6	7	21	4	7	31	14	3	14	13	4	4	8	3	6
				roup	Sel Rig	lf-Ope	erated	lus Op d, Rig , Vess	Own	er-Op		r, Ves	sel Ov	vner-	Opera	ator	Ma As	nufac	turer ler, C	, Fabi hemio		r	, Pack	ager,	Syste	em Int	tegra	tor										-	7	

WHERE DO MPRC100 COMPANIES OPERATE

To provide readers with a better understanding of the oil & gas services supply chain, the diagram below illustrates the segments where MPRC100 companies operate in. Broadly, the oil & gas services supply chain can be categorised into Exploration, Development, Production and Decommissioning segments, corresponding with the various phases along the life-cycle of a project. The Development phase typically lasts between 1-4 years and 15-20 years for the Production phase.

Based on PETRONAS' Standard Work & Equipment Categories (SWEC) as of September 2016, the segments are further divided into 45 services and 23 products broad categories. The MPRC100 companies are then mapped according to their corresponding operating category(s) as illustrated in Figure 1.

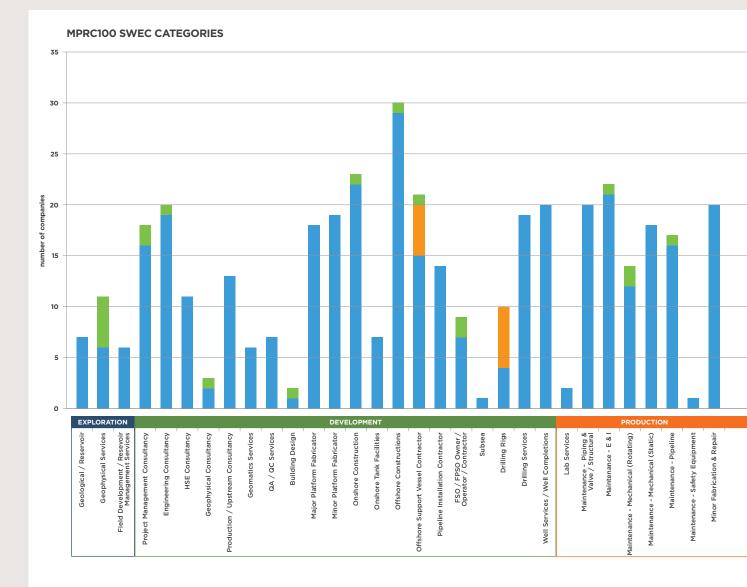
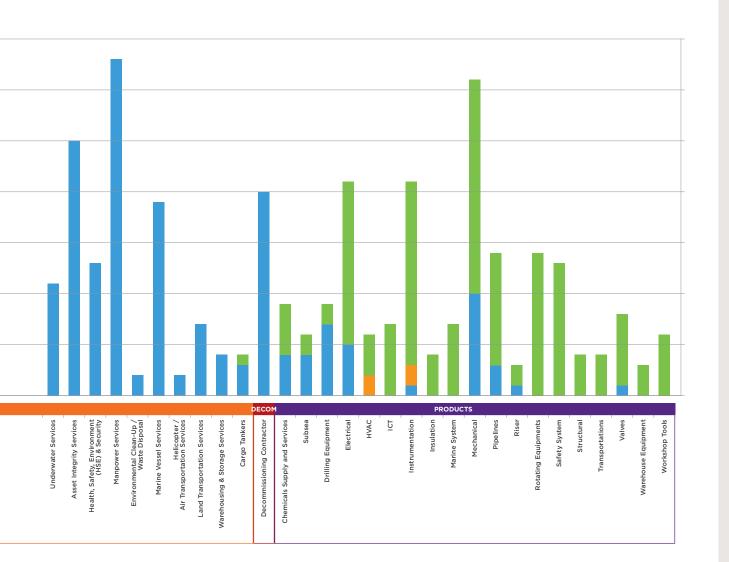


Figure 1

The degree of value-added activities of these companies is based on the logical grouping of their respective mode of operations, shown in the table below:

Group	Services Modus Operandi	Products Modus Operandi
1	Self-Operated, Rig Owner-Operator, Vessel Owner-Operator	Manufacturer, Fabricator
2	Rig Operator, Vessel Operator	Assembler, Chemical Blender, Packager, System Integrator
3	Agent	Dealer, Buying Arm

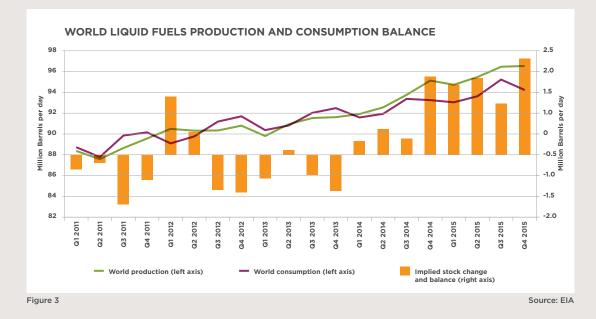
From the diagram below, MPRC100 companies operate across all categories of the oil & gas services and products supply chain. Similar to the previous editions, these companies continue to exhibit a higher degree of value-added activities in the services categories.



UPSTREAM OIL & GAS INDUSTRY - THE NEW NORMAL



Since the oil crises of the 1970s, oil prices have been cyclical in response to changes in global demand, OPEC and non-OPEC supplies, as well as geopolitical uncertainty. During the past decade, global oil majors were focused on raising production and investing in new field developments as prices climbed to record levels. This rally was disrupted in July 2014 when prices began to fall.



The sharp decline in oil prices—with 2015 being the first full year of low oil prices—reflects oversupply, slower-than-expected demand growth around the world and OPEC's change in stance on production. This period also saw the world's top producers USA, Russia and Saudi Arabia increasing production in a bid to raise their respective share of the market.

Yet, in spite of their size, we note that OPEC failed to assert their control over the oil markets. This led to a production surplus of 2.3 million barrels per day in Q4 2015. The impact of this situation on producers have been swift.

To survive in the new landscape, we saw major producers shifting their focus to cost-reduction strategies whilst maintaining production levels and improving the viability of new developments. However, shale oil developments in North America seemed to have made the most progress.

At the time of publication, shale players were able to reduce their breakeven point to as low as USD32/bbl¹. Furthermore, the shorter lead-time and payback period of shale oil players have made them the swing producers in global oil markets, usurping OPEC in the process. Barring significant new developments, we expect oil prices to remain under downward pressure in the coming years.

G The "supply glut" and lower breakeven cost of shale developments continue to put downward pressure on oil prices

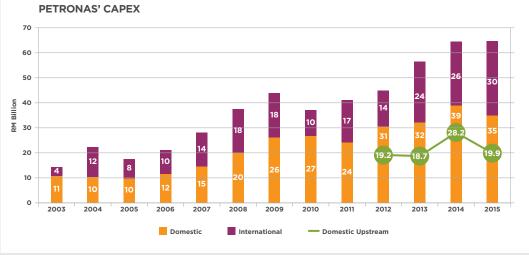


Figure 4

Source: PETRONAS, MPRC Analysis

Against this backdrop, PETRONAS maintained its total capital investments (CAPEX) in 2015 at RM64.7 billion compared to RM64.6 billion in 2014. Of the figure, RM35 billion was allocated for domestic projects, down from RM39 billion in 2014. From this, RM19.9 billion was allotted for the upstream segment, while RM11.6 billion went to the downstream segment. It is interesting to note that PETRONAS' domestic upstream CAPEX levels in 2015 remained comparable to 2012 and 2013.

However, we recognise that the types of projects in 2015 were of a different mix compared to previous years. During the year, key upstream projects include Floating LNG projects, LNG Train 9 in Bintulu, the North Malay basin pipeline and facilities in Terengganu, as well as NC3 offshore facilities project for Train 9. Meanwhile, the downstream projects, Refinery and Petrochemical Integrated Development (RAPID) project and the Sabah Ammonia Urea (SAMUR) project remained on track.

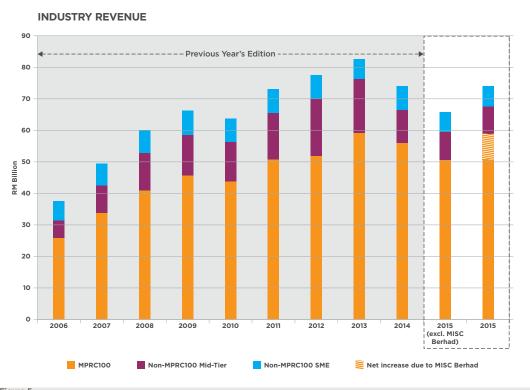
In view of the prolonged weakness in oil prices for the next few years, we foresee further reductions in PETRONAS' domestic upstream CAPEX in 2016. In short, we expect Malaysia's OGSE sector will continue to face challenges in the years to come.

¹ Source: Rystad Energy, 'Average shale wellhead breakeven prices are below 40 USD/bbl', July 2016

2015: MALAYSIA'S OGSE SECTOR IN REVIEW

This year's edition feature a significant new entrant, MISC Berhad (MISC) to the MPRC100 FY2015 population. MISC's revenue in FY2015 represents nearly 17% of the rest of the OGSE sector. This would have significantly skewed our aggregate industry analysis when compared with FY2014 figures.

To mitigate this, we perform our sector review in two parts. In the first review, we exclude MISC but include its subsidiaries, Malaysia Marine and Heavy Engineering Holdings Berhad (MMHE) and FPSO Ventures Sdn. Bhd., in our calculations. This allows for a direct comparison against MPRC100 historical figures.



In the second review, MISC is included in the FY2015 population's overall results.

Figure 5

By excluding MISC, the OGSE sector revenue totalled at RM65.8 billion in 2015, a decline of 11.1% from RM74 billion in 2014. MPRC100 companies' total revenue fell by 9.8%, while Non-MPRC100 Mid-Tier companies and SMEs fared worse, with total revenue falling by 18.8% and 10%, respectively.

Excluding MISC, total OGSE revenue declined by 11.1% in 2015

However, when we include MISC to the MPRC100 FY2015 total population, sector revenue for the year reached RM74.1 billion. In this review, MPRC100 companies remained as the dominant players, accounting for 79.5% of total sector revenue.

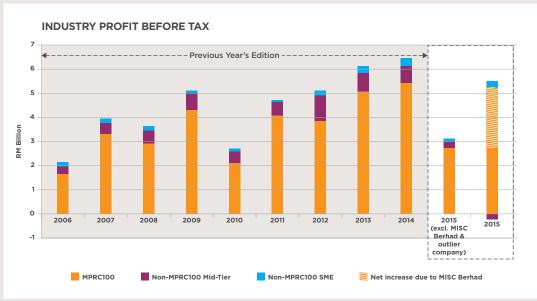


Figure 6

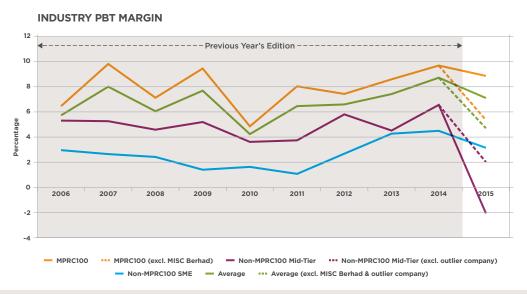


Figure 7

Our analysis further showed that an outlier company recorded a significant drop in profits. The company's results caused Non-MPRC100 Mid-Tier companies to record an aggregate profit before tax (PBT) of -2.1% in 2015.

If we exclude MISC and the outlier company, total OGSE sector PBT in 2015 was RM3.1 billion, representing a decline of 52.3% from RM 6.5 billion in 2014. Average PBT margin for the sector also declined, from 8.7% to 4.7%. MPRC100 companies averaged 5.4%, whereas the Non-MPRC100 Mid-tier companies and SMEs averaged 1.9% and 3.2% respectively.

When MISC and the outlier company were included, total sector PBT recorded for FY2015 was RM5.3 billion with an average PBT margin of 7.1%. Meanwhile, MPRC100 companies' total PBT was RM5.2 billion, averaging 8.9%.

A significant portion of the PBT decline in 2015 can be attributed to losses arising from asset impairment recognised by offshore drilling rig and vessel owners, due to declining rates and lower demand for their assets. This shows Malaysian OGSE companies have started taking measures to adjust to the new operating environment.

Excluding MISC, total PBT in 2015 fell by 52% mainly due to impairment charges by offshore drilling rigs and vessel owners

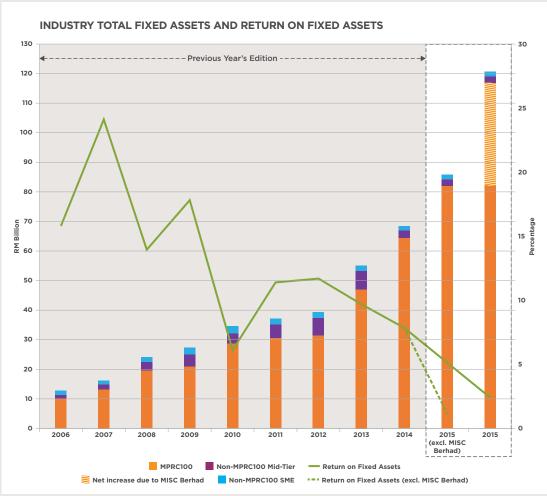


Figure 8

Excluding MISC, we saw total OGSE sector fixed assets rising to RM86 billion in 2015 from RM68.4 billion in 2014. Return on fixed assets (ROA) meanwhile fell further to 3.2% in 2015 from 9.4% in 2014.

With MISC, OGSE sector fixed assets totalled RM120.8 billion in 2015, with an ROA of 4.3%. In this review, MPRC100 companies continue to hold sizeable proportion of the sector's total fixed assets, accounting for 96.9% in 2015.

The increase in fixed assets during the year was driven mainly by construction and delivery of new assets already committed in previous years. However, with declining revenue and low profit margins, asset-heavy OGSE companies may struggle to meet their debt obligations if future asset utilisation remains low.

Asset heavy OGSE companies may struggle to meet debt obligations if future asset utilisation continues to remain low

ADDITIONAL ANALYSIS: MPRC100 FY2015 TOP PERFORMERS

Within this section, we assessed MPRC100 companies' performance against the rest of the sector. We also identified companies that have outperformed the sector and their MPRC100 peers. We also analysed the rate of investment among the top performing companies.

In our additional analysis for FY2015, we used year-on-year (Y-o-Y) basis instead of the 3-year compounded annual growth rate (CAGR) as per our previous editions. The revision to our approach was due to the significant price movements in oil markets, where the period between 2014 and 2015 represented the sharpest drop in oil prices. This approach allows us to see which companies fared better during the 2014-2015 period.

1. OGSE sector has been adversely affected across all segments

Average ratios were used in the previous section as it was an industry-level analysis. For this section, the focus is on the dynamics at a company level. Therefore, median analysis is a more appropriate measure as it provides a better understanding of a typical company within each category.

Median is the middle value in a sorted list of numbers. Therefore, if companies in a group were ranked for a specific measure and there were 100 companies with valid observations, the median for that group would be the average value of the 50th and 51st ranked companies. In our opinion, the median analysis provides a better understanding of the "typical" company in each category. For this purpose, MISC's inclusion does not significantly skew the median analysis due to the way it is computed.

We looked at two measures— median Y-o-Y revenue growth and median PBT margin—for the three segments of the OGSE sector, (i) MPRC100, (ii) Non-MPRC100 Mid-Tier, and (iii) Non-MPRC100 SME. We also included the median performance of Bloomberg Global Oilfield Services Competitive Peers, a selection of 39 global OGSE companies, for comparison.

Median I	Revenue Gr	owth (%)	Med	lian PBT Ma	rgin
2014	2015	Changes	2014	2015	Changes
7.9	-3.0	▼	8.3	6.6	▼
10.8	-15.6	▼	3.6	2.9	▼
7.8	3.0	▼	1.8	1.5	▼
8.6	-1.3	▼	2.3	1.8	▼
7.3	-31.7	▼	8.5	-10.1	▼
	2014 7.9 10.8 7.8 8.6	2014 2015 7.9 -3.0 10.8 -15.6 7.8 3.0 8.6 -1.3	7.9 -3.0 10.8 -15.6 7.8 3.0 8.6 -1.3	2014 2015 Changes 2014 7.9 -3.0 ▼ 8.3 10.8 -15.6 ▼ 3.6 7.8 3.0 ▼ 1.8 8.6 -1.3 ▼ 2.3	2014 2015 Changes 2014 2015 7.9 -3.0 ▼ 8.3 6.6 10.8 -15.6 ▼ 3.6 2.9 7.8 3.0 ▼ 1.8 1.5 8.6 -1.3 ▼ 2.3 1.8

Figure 9

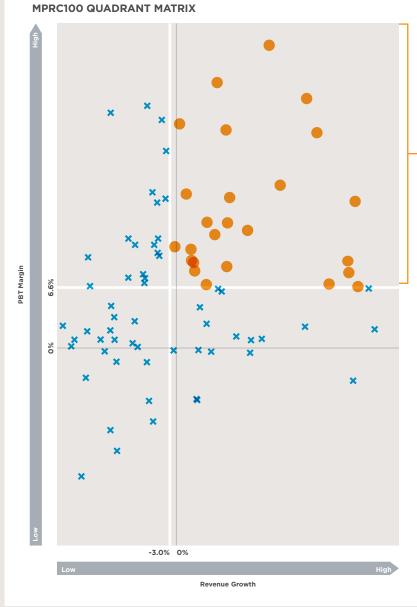
In 2015, the median revenue growth and PBT margin fell across all categories. The Y-o-Y revenue of median MPRC100 player shrank by 3.0% compared to a growth of 7.9% in 2014. Median PBT margin declined to 6.6% compared to 8.3% last year.

Nevertheless, it is important to note that MPRC100 companies fared better than their international peers. The median revenue for Bloomberg Global Oilfield Services Competitive Peers declined by 31.7% with PBT margin of -10.1% in 2015.

Malaysian OGSE median revenue growth and PBT margins fell across all categories, but still fared better than their international peers

2. A Focus on the Top Performers in the midst of a downcycle

To identify the top performers among the MPRC100 companies, we plotted revenue growth and PBT margin against the MPRC100 median of -3.0% and 6.6% respectively in the scatter chart below. This yielded 29 companies in the top-right quadrant that have outperformed their MPRC100 peers in 2015. They are listed in the table below:



Company Name	Rank 2015
MISC BERHAD	1
SAPURAKENCANA PETROLEUM BERHAD	2
SCOMI ENERGY SERVICES BHD.	8
PETRA ENERGY BHD.	17
DELEUM BERHAD	19
E.A. TECHNIQUE (M) BERHAD	23
ASIAFLEX PRODUCTS SDN. BHD.	25
MTU SERVICES (MALAYSIA) SDN. BHD.	27
ADVANCE GAS TURBINE SOLUTIONS SDN. BHD.	28
TOYO ENGINEERING & CONSTRUCTION SDN. BHD.	29
R.M. LEOPAD SDN. BHD.	30
SCHLUMBERGER WELLOG (M) SDN. BHD.	36
SANKYU (MALAYSIA) SDN. BHD.	40
DESTINI BERHAD	41
DYNAC SDN. BHD.	49
KUALITI ALAM SDN. BHD.	51
AECOM PERUNDING SDN. BHD.	55
GRADE ONE MARINE SHIPYARD SDN. BHD.	63
TRISYSTEMS ENGINEERING SDN. BHD.	67
SHOREFIELD SDN. BHD.	68
PRESTARIANG SYSTEMS SDN. BHD.	75
MMC OIL & GAS ENGINEERING SDN. BHD.	79
JHW REELS SDN. BHD.	82
OGPC SDN. BHD.	83
EWT TRANSFORMER SDN. BHD.	86
ORKIM MARINE SDN. BHD.	90
NEWWIN ENGINEERING (M) SDN. BHD.	91
CMC ENGINEERING SDN. BHD.	94
TITAN OIL & GAS SDN. BHD.	98

Figure 10

3. The Top Performers have mixed investment strategies

Company Name	Rank 2015	Revenue Growth	PBT Margin	TFA Growth
MISC BERHAD	1	17.3	23.5	14.4
SAPURAKENCANA PETROLEUM BERHAD	2	18.7	16.3	31.5
SCOMI ENERGY SERVICES BHD.	8	10.2	6.9	4.4
PETRA ENERGY BHD.	17	4.9	9.5	8.9
DELEUM BERHAD	19	-1.2	11.0	11.4
E.A. TECHNIQUE (M) BERHAD	23	252.7	9.2	19.7
ASIAFLEX PRODUCTS SDN. BHD.	25	61.8	8.2	22.0
MTU SERVICES (MALAYSIA) SDN. BHD.	27	50.3	23.2	-17.9
ADVANCE GAS TURBINE SOLUTIONS SDN. BHD.	28	503.0	14.1	110.0
TOYO ENGINEERING & CONSTRUCTION SDN. BHD.	29	5.6	9.3	341.3
R.M. LEOPAD SDN. BHD.	30	69.2	36.2	-7.2
SCHLUMBERGER WELLOG (M) SDN. BHD.	36	54.7	6.9	-45.5
SANKYU (MALAYSIA) SDN. BHD.	40	4.6	10.7	0.2
DESTINI BERHAD	41	61.5	9.4	57.8
DYNAC SDN. BHD.	49	13.3	12.3	-76.6
KUALITI ALAM SDN. BHD.	51	33.0	32.6	56.9
AECOM PERUNDING SDN. BHD.	55	6.0	8.3	-13.9
GRADE ONE MARINE SHIPYARD SDN. BHD.	63	208.7	15.4	40.7
TRISYSTEMS ENGINEERING SDN. BHD.	67	37.0	17.6	-66.3
SHOREFIELD SDN. BHD.	68	0.5	24.2	-8.9
PRESTARIANG SYSTEMS SDN. BHD.	75	46.5	26.9	13.2
MMC OIL & GAS ENGINEERING SDN. BHD.	79	2.9	16.6	-13.8
JHW REELS SDN. BHD.	82	17.6	8.8	12.5
OGPC SDN. BHD.	83	14.1	28.6	31.6
EWT TRANSFORMER SDN. BHD.	86	10.4	13.6	-6.3
ORKIM MARINE SDN. BHD.	90	17.9	13.5	35.7
NEWWIN ENGINEERING (M) SDN. BHD.	91	65.1	6.7	66.9
CMC ENGINEERING SDN. BHD.	94	64.1	15.8	59.8
TITAN OIL & GAS SDN. BHD.	98	25.1	12.7	-14.9
Figure 11				

Having computed the total fixed asset growth for the top performers, we found that the top performers adopted mixed investment strategies in 2015, which is in contrast to previous MPRC100 edition. From the analysis, 19 of the 29 companies continued to see an increase, while 10 registered a decline in total fixed assets.

ADDITIONAL ANALYSIS: FINANCIAL FLEXIBILITY

Against a backdrop of lower oil prices and reduced industry activities, we also analysed MPRC100 companies' financial flexibility. This allowed us to identify companies with the financial strength to operate in the new normal.

1. Focus on 'asset-heavy' companies

We identified 36 'asset heavy' companies using an asset turnover criterion and excluded subsidiaries of MNCs that were primarily financed through inter-company loans. Cumulatively, these companies (Figure 12) account for 94% of the total fixed assets of the entire OGSE industry.

Company Name	Rank 2015	Revenue (RM mil)	TFA (RM mil)	Segment
MISC BERHAD	1	10,908.4	36,791.3	FPSO
SAPURAKENCANA PETROLEUM BERHAD	2	9,943.0	28,845.8	EPCIC
DIALOG GROUP BERHAD	3	2,358.2	1,741.0	Facilities
BUMI ARMADA BERHAD	4	2,179.7	14,916.0	FPSO
WAH SEONG CORPORATION BERHAD	5	1,839.5	1,602.0	Products / Manufacturing
KNM GROUP BERHAD	6	1,641.3	2,803.8	Products / Manufacturing
MUHIBBAH ENGINEERING (M) BHD.	7	1,604.8	1,095.2	EPCIC
SCOMI ENERGY SERVICES BHD.	8	1,560.2	775.4	Drilling / Well Services
UMW OIL & GAS CORPORATION BERHAD	13	839.9	6,089.2	Drilling Rigs
DAYANG ENTERPRISE HOLDINGS BHD.	14	778.6	2,751.1	Maintenance / HUC
DAYA MATERIALS BERHAD	16	718.8	862.5	Others
PETRA ENERGY BHD.	17	654.8	495.0	Maintenance / HUC
DELEUM BERHAD	19	649.4	308.8	Drilling / Well Services
SILK HOLDINGS BERHAD	21	596.0	2,304.5	OSV
BARAKAH OFFSHORE PETROLEUM BERHAD	22	592.6	299.8	Others
E.A. TECHNIQUE (M) BERHAD	23	549.1	646.3	OSV
UZMA BERHAD	26	510.8	522.8	Drilling / Well Services
YINSON HOLDINGS BERHAD	31	395.4	1,603.1	FPSO
ALAM MARITIM RESOURCES BERHAD	34	350.2	827.8	OSV
EASTERN PACIFIC INDUSTRIAL CORPORATION BERHAD	35	335.4	779.3	Facilities
MHS AVIATION BERHAD	37	300.7	537.4	Others

(more on next page)

Company Name	Rank 2015	Revenue (RM mil)	TFA (RM mil)	Segment
DESTINI BERHAD	41	270.1	296.6	Drilling / Well Services
ICON OFFSHORE BERHAD	42	266.6	1,339.2	OSV
BOUSTEAD HEAVY INDUSTRIES CORPORATION BHD.	43	265.6	348.9	EPCIC
PERISAI PETROLEUM TEKNOLOGI BHD.	46	214.8	2,101.9	Drilling Rigs
KUALITI ALAM SDN. BHD.	51	191.0	139.7	Others
CARIMIN PETROLEUM BERHAD	56	163.4	136.6	Maintenance / HUC
HI-ESSENCE CABLE SDN. BHD.	58	159.0	103.6	Products / Manufacturing
GRADE ONE MARINE SHIPYARD SDN. BHD.	63	153.0	298.7	Others
HANDAL RESOURCES BERHAD	73	114.6	71.5	Products / Manufacturing
INTEGRATED LOGISTICS SOLUTIONS SDN. BHD.	76	112.4	204.9	Others
AJANG SHIPPING SDN. BHD.	81	106.9	273.4	OSV
TH HEAVY ENGINEERING BERHAD	84	100.5	1,135.4	EPCIC
DIMENSION BID (M) SDN. BHD.	88	96.2	77.7	Drilling / Well Services
ORKIM MARINE SDN. BHD.	90	94.0	57.8	Others
SETEGAP VENTURES PETROLEUM SDN. BHD.	97	84.7	40.9	Drilling / Well Services

(continued from last page)

Figure 12

EPCIC: Engineering, Procurement, Construction, Installation & Commissioning FPSO: Floating, Production, Storage & Offloading HUC: Hook-Up and Commissioning

OSV: Offshore Support Vessel

2. Average profile of 'asset-heavy' companies

We based our analysis on two financial ratios:

- a) Debt/Equity (DE) = Total Debt/Total Shareholder Funds
- b) Cashflow Coverage Ratio (CCR) = (Cash + Net Cashflow from Operations)/ (Interest + Short-term Debt Obligations)

These two ratios were applied to assess the long-term and short-term capacity of companies to meet their debt obligations. In this analysis, a lower DE ratio is preferable, as this suggests that the company financed a larger proportion of its assets using shareholders' equity instead of borrowings. Meanwhile, a higher CCR indicates stronger cash balances and operating cashflow to meet immediate debt commitments within the next 12 months.

Barring MISC, our analyses showed that average DE ratio of the 35 other asset heavy companies increased to **1.05x** in 2015 compared to 0.78x in 2014. Meanwhile, the average CCR ratio of these companies declined to **1.13x** from 1.60x last year. The deterioration in these measures indicates weaker financial strength of the asset-heavy players.

However, when we include MISC, the 36 'asset-heavy' companies had an average DE ratio of 0.64x and average CCR of 1.79x.

• Deterioration of average DE and CCR ratios indicate weaker financial strength of the asset heavy players

3. Financial profile based on segments

Major segments of the oil & gas services value chain were analysed in a bid to obtain different financial profiles of each individual segment. As such, we assigned a major operating segment for each of the 36 asset-heavy companies. The average ratios of the players in their respective segments are plotted onto the chart below:

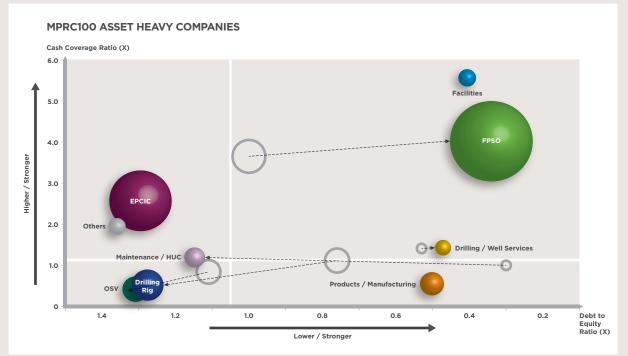


Figure 13

Main Segment	No. of MPRC100 'Asset-Heavy'		Debt to Ratio (X)		e Cash Ratio (X)	TFA
	Companies	2014	2015	2014	2015	(RM mil)
Drilling / Well Services	6	0.53	0.47	1.41	1.44	2,022.2
OSV	5	1.11	1.31	0.84	0.43	5,391.2
EPCIC	4	0.85	1.30	1.86	2.58	31,425.3
Products / Manufacturing	4	0.40	0.50	0.33	0.56	4,580.9
FPSO	3	1.00	0.34	3.65	4.02	53,310.4
Maintenance / HUC	3	0.30	1.15	2.04	1.20	3,382.7
Drilling Rigs	2	0.76	1.28	1.11	0.53	8,191.1
Facilities	2	0.51	0.41	5.50	5.57	2,520.3
Others	7	0.75	1.36	1.26	1.99	2,400.8

Figure 14

The FPSO segment saw an improvement due to the inclusion of MISC into the group. Meanwhile, Drilling / Well Services and Facilities also saw an improvement. However, the OSV, Maintenance / HUC and Drilling Rigs segments saw a deterioration in their average financial flexibility. This was due mainly to higher leverage and declining CCR ratio in these segments in 2015.

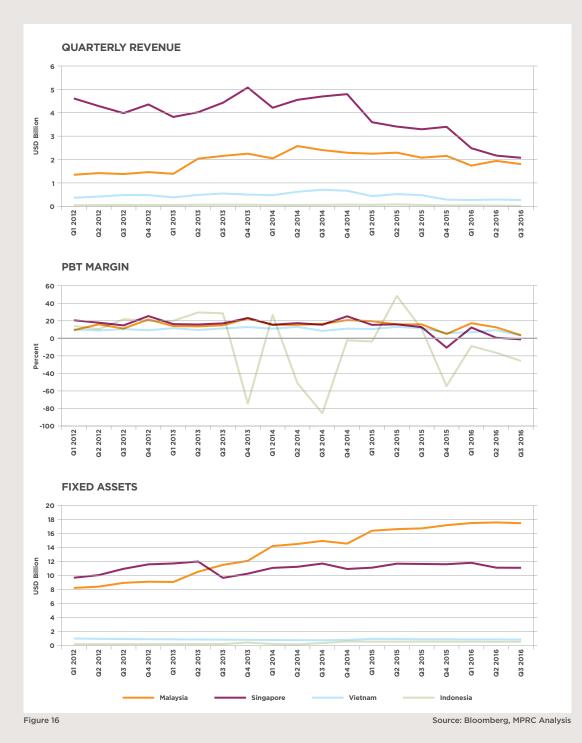
ADDITIONAL ANALYSIS: COMPARISON WITH TOP REGIONAL PLAYERS

By and large, OGSE companies in Malaysia and the region were affected by prevailing industry conditions. But we wanted to see how Malaysian OGSE companies measure up against its regional peers. As such, we looked at the top-20 listed OGSE companies in Southeast Asia based on their quarterly revenue in calendar year (CY) 2015.

No	Company Name	Country	Total Quarterly Revenue CY2015 (USD million)
1	KEPPEL CORP LTD	SG	7,489.36
2	SEMBCORP MARINE LTD	SG	3,615.36
3	SAPURAKENCANA PETROLEUM BERHAD	MY	3,019.91
4	MISC BERHAD	MY	2,807.09
5	PETROVIETNAM TECHNICAL SERVICES CORPORATION	VN	1,066.39
6	SWIBER HOLDINGS LTD	SG	833.00
7	DIALOG GROUP BERHAD	MY	684.56
8	PETROVIETNAM DRILLING AND WELL SERVICES CORPORATION	VN	659.35
9	BUMI ARMADA BERHAD	MY	560.92
10	EZRA HOLDINGS LTD	SG	543.84
11	WAH SEONG CORPORATION BERHAD	MY	473.37
12	SCOMI ENERGY SERVICES BHD.	MY	466.53
13	KNM GROUP BERHAD	MY	422.36
14	EZION HOLDINGS LTD	SG	351.15
15	FALCON ENERGY GROUP LTD	SG	342.44
16	MERMAID MARITIME PCL	SG	337.05
17	PT APEXINDO PRATAMA DUTA TBK	ID	246.29
18	UMW OIL & GAS CORPORATION BERHAD	MY	216.13
19	DAYANG ENTERPRISE HOLDINGS BHD.	MY	200.35
20	DYNA-MAC HOLDINGS LTD	SG	196.13
Figure	15		Source: Bloomberg, MPRC Analysis

The list above is based on companies in Bloomberg's 'Oil Equipment and Services' sector that are based in Southeast Asia. To align with MPRC100, we amended the list by replacing MMHE and Scomi Group with MISC and Scomi Energy. Emas Offshore and Triyards were consolidated under Ezra Holdings. In addition, we excluded Sembcorp Industries and CWG International as their main business segments are not related to oil & gas activities.

From the list, it was interesting to note that of the top-20 OGSE companies in the region, nine were from Malaysia, eight from Singapore, two from Vietnam and one from Indonesia.



We extracted the quarterly revenue, PBT margins and fixed assets of the top 20 Malaysian and Southeast Asian companies and aggregated them according to their countries:

Using these financial data as an indicator, we found that Malaysian companies have been catching up with their regional peers in terms of revenue, and have surpassed them in terms of total fixed assets.

In addition, we found that top Malaysian players were not as severely affected when compared with their regional peers. This is partly due to the concentration of regional players in upstream CAPEX segments such as fabrication, and transportation and installation (T&I) activities. In contrast, Malaysian players are spread across segments, reflecting the breadth of Malaysia's OGSE supply chain.

Despite prevailing industry conditions, Malaysian companies were not as severely affected as their regional peers

OUTLOOK

The lessons from the current downturn have taught oil & gas operators to be wary in their capital spending outlook. The days of unchecked spending on products and services are all but over, as cost efficiency is key to surviving in the new normal.

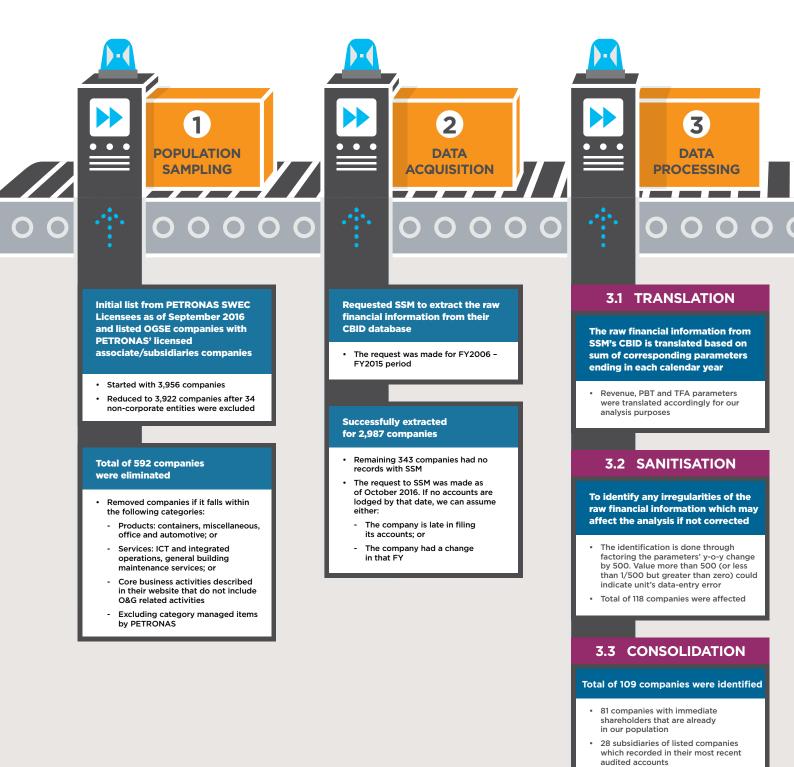
PETRONAS has shouldered its share of the pain, as reflected by its earnings decline. Malaysian OGSE players were affected as well, despite faring better than their regional peers. We expect 2016 to remain challenging as existing contracts run out, replaced by fewer and smaller new contracts on offer. Less competitive OGSE companies will be significantly affected.

Nonetheless, it is critical for Malaysian OGSE companies to take immediate action to reshape their business models and cost structures to face future challenges. Those with scale or distinctive technologies will be in a better position for the next upcycle. In addition, new models of collaboration between service players and operators will be instrumental to ensure survivability in this new normal.

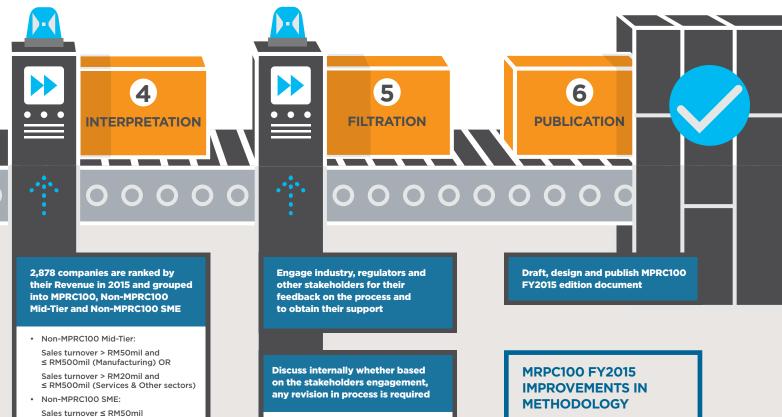
This industry is an inherently cyclical business. Therefore, industry stakeholders, operators and financial institutions should take a long-term view and not lose sight of these promising Malaysian OGSE companies.



METHODOLOGY



Final population sample <u>of 2,878 companies</u>



(Manufacturing) OR Sales turnover ≤ RM20mil

(Services & Other sectors)

- 1,012 companies have no Revenue recorded for FYE2015 based on SME CORP
- If a business exceeds the threshold set under financial criteria for 2 consecutive years (based on its financial year/accounting period) then it can no longer be deemed as an SME. Similarly, a business that is previously large can become an SME if it fulfills the qualifying criteria of SMEs for 2 consecutive years

Selected financial information and ranking information are made available

 To perform basis analysis on the size/growth of the O&G related activities

- If YES, revise and repeat process from step 2
- If NO, proceed to step 6

These are the changes to our previous methodology:

- The population sample is now including listed OGSE companies with PETRONAS' licensed associate/subsidiaries
- If a business exceeds the threshold set under financial criteria for 2 consecutive years (based on its financial year/accounting period) then it can no longer be deemed as an SME. Similarly, a business that is previously large can become an SME if it fulfills the qualifying criteria of SMEs for 2 consecutive years

MPRC REGISTRATION WANT YOUR COMPANY TO BE FEATURED IN THE NEXT EDITION OF MALAYSIA OGSE CATALOGUE?

Follow the simple step-by-step guide below:



The Malaysia Oil & Gas Services and Equipment (OGSE) Catalogue 2016 summarises the background and project experiences of Malaysian OGSE companies.

Additionally, this catalogue aims to map the capabilities of Malaysian OGSE companies to complement the 13 major segments of the oil & gas value chain in a user-friendly matrix. Office addresses, telephone & fax numbers as well as contact persons and email addresses are provided for each individual company. The purpose of this catalogue is to promote Malaysian oil & gas capabilities in international markets. It will also be used as a reference point for international oil companies, national oil companies, and contractors.

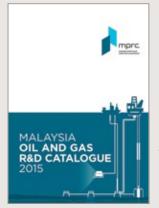
Note:

A company is defined as a Malaysian OGSE company if:

- It is a Malaysian registered legal entity
- A substantial proportion of its revenue is generated from the oil & gas sector

Malaysia Petroleum Resources Corporation reserves the right to determine the suitability of Malaysian OGSE companies that will be featured in this publication. Malaysia Petroleum Resources Corporation also reserves the right to amend, modify and/or eliminate any of the Malaysia OGSE company profiles at its sole discretion, with or without prior notice.

OTHER MPRC PUBLICATIONS



MALAYSIA OIL AND GAS R&D CATALOGUE

The Malaysia Oil and Gas R&D Catalogue is a compilation of relevant R&D capabilities to support innovation and technology development for the oil & gas industry.

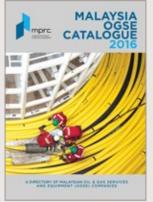
If you need more information on this publication, please write to *razwan.zakaria@mprc.gov.my*



FINANCING SCHEMES FOR OGSE COMPANIES

The Financing Schemes for OGSE Companies is a compilation of grants, loans and tax incentives provided by Malaysian government agencies and Development Financial Institutions that are relevant to the Oil & Gas Services and Equipment (OGSE) sector.

If you need more information on this publication, please write to *financingschemes@mprc.gov.my*



MALAYSIA OGSE CATALOGUE

The Malaysia Oil & Gas Services and Equipment Catalogue 2016 summarises the background and project experiences of Malaysian OGSE companies. Additionally, this catalogue aims to map the capabilities of Malaysian OGSE companies to complement the 14 major segments of the oil & gas value chain in a user-friendly matrix. Office addresses, telephone numbers, fax numbers as well as contact persons and email addresses are provided for each individual company.

If you need more information on this publication, please write to *ogse.industry@mprc.gov.my.*



SME GROW

SME GROW lists active Oil & Gas Services and Equipment (OGSE) Small and Mediumsized Enterprises (SMEs) with the potential to grow from the SME segment into Mid-tier companies. SME GROW applies a filtering process to identify a number of SME companies with high potential, and ranked based on both revenue growth and profitability.

If you need more information on this publication, please write to *sme.grow@mprc.gov.my*



DOING BUSINESS IN SOUTHEAST ASIA: GUIDE FOR MALAYSIAN OGSE COMPANIES

A guide for Malaysian OGSE Companies, produced in collaboration with MATRADE, outlines the oil & gas landscape and market entry strategies for Malaysian OGSE companies interested in expanding their business to Indonesia, Myanmar, Vietnam and Thailand. This publication also features on-theground insights from Malaysian OGSE players, key contacts, as well as information on MATRADE's export assistance programmes for Malaysian exporters.

If you need more information on this publication, please write to **pbo@mprc.gov.my**.

GLOSSARY

CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CCR	Cashflow Coverage Ratio
CBID	Corporate and Business Information Data
СҮ	Calendar Year
DE	Debt over Equity
EIA	US Energy Information Administration
EPCIC	Engineering, Procurement, Construction, Installation and Commissioning
FPSO	Floating Production Storage and Offloading
FY	Financial Year
HUC	Hook-Up and Commissioning
IEA	International Energy Agency
LNG	Liquefied Natural Gas
MPRC	Malaysia Petroleum Resources Corporation
OGSE	Oil & Gas Services and Equipment
OPEC	Organisation of the Petroleum Exporting Countries
OSV	Offshore Support Vessel
RAPID	Refinery and Petrochemicals Integrated Development
ROA	Return on Fixed Assets
PBT	Profit Before Tax
SAMUR	Sabah Ammonia Urea
SME	Small and Medium-sized Enterprise
SSM	Companies Commission of Malaysia (Suruhanjaya Syarikat Malaysia)
SWEC	Standard Work & Equipment Categories

Copyright © 2016 Malaysia Petroleum Resources Corporation

All rights reserved. This publication is copyright protected. No part of this document may be reproduced, stored in a retrieval system, transmitted in any means (electronic, mechanical, photocopying, recording or otherwise) without the permission of Malaysia Petroleum Resources Corporation. Text, figures or graphics contained in this publication, including but not limited to graphs, charts, drawings, tables, photos or maps, save for elements credited to third parties, may be copied or reproduced provided that the source is acknowledged, the text is not altered and it is not used, wholly or in part, for commercial gain. Use for commercial gain requires the prior written permission of Malaysia Petroleum Resources Corporation.

Disclaimer

Whilst every effort has been made to ensure the accuracy of the information contained in this document, Malaysia Petroleum Resources Corporation accepts no responsibility for any errors it may contain, or for any loss, financial or otherwise, sustained by any person using this publication. Should there be inaccuracies, please write to us at *mprc100@mprc.gov.my*



Malaysia Petroleum Resources Corporation Suite 20-11, Level 20, G Tower, 199 Jalan Tun Razak, 50400, Kuala Lumpur, Malaysia.
 tel
 +603 2858 8555

 fax
 +603 2858 8599

 web
 www.mprc.gov.my

 email
 information@mprc.gov.my



FEEDBACK We welcome feedback from the industry as well as the public. Please submit your comments/enquiries at *mprc100@mprc.gov.my*