

### Company Snapshot





**52**Projects
completed till
date



**3**Countries in which they are present



**16**Experience in sedimentary basins



**39,020 GLK**Of experience in 2D data



**6,807 Sq. Km**Of experience in 3D data



**227**Team members
as on 31<sup>st</sup>
March, 2018



**27**Years of Experience in Seismic Data
Acquisition



**80%**3 Years Revenue
CAGR
FY18 – INR 4,290 Mn



56%
3 Years PAT
CAGR
FY18 – INR
540 Mn



**36.59%** FY18 ROCE



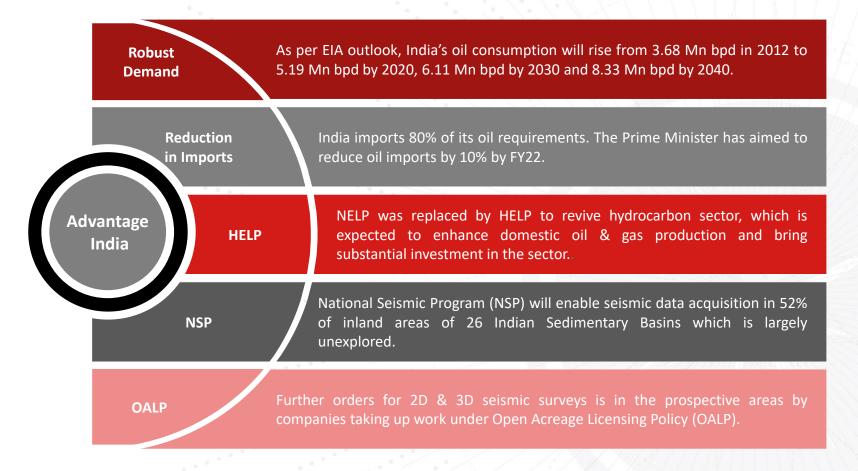
INR 2,799 Mn Capital Employed (FY18)



INR 3,022 Mn
Of Market
Capitalization as on
31<sup>st</sup> December, 2018

## Opportunity





### **Executive Summary**



COMPANY OVERVIEW



• Incorporated in 1987, Alphageo (India) Ltd. (Alphageo), is India's oldest and largest private sector provider of seismic data acquisition services.

The Company provides a wide range of geophysical services to renowned national and international oil and gas exploration companies and research organizations to identify subterranean deposits of hydrocarbons and other minerals with accuracy. FINANCIAL HIGHLIGHTS (FY18)

TOTAL REVENUE
INR 4,314 Mn
40.0% YoY

BUSINESS SEGMENTS

Seismic data acquisition in 2D/3D/3C

Seismic data processing of 2D/3D data

Seismic data interpretation

Airborne Surveys Geophysical mapping services

Other Services

EBITDA
INR 1,248 Mn
20.3% YoY

KEY CLIENTS







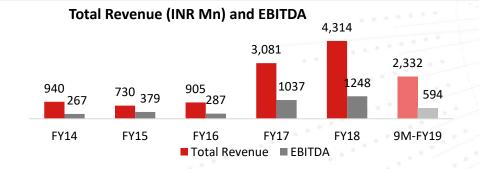
PAT
INR 545 Mn
7.7% YoY



### Company Profile

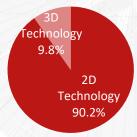


- Alphageo (India) Ltd. (Alphageo) is engaged in providing seismic data acquisition services to the oil exploration and production sector.
- Its services include design and pre-planning of 2D and 3D surveys, seismic data acquisition, data processing, data interpretation, generation, evaluation, and ranking of prospects, reservoir data acquisition and reservoir analysis.
- Until 2005, Alphageo offered only 2D acquisition services but its decision to start offering 3D was a game changer in the Indian Seismic Services Industry.
- It became the first Indian Company to offer 3D acquisition services for identifying subterranean deposits with accuracy.



- Alphageo operations are spread across North-East, Southern and Western India.
- The Company's clients include large national and international oil majors like ONGC, Oil India Limited, GAIL (India), Petronas Carigali Inc. etc.
- Alphageo has acquired over 35,000 GLK, processed over 31,000 LKM, interpreted over 15,000 LKM of 2D seismic data and acquired over 7,000 Sq. Km of 3D seismic data in the last 6 years.
- Presently, the Company has 17 crew members and achieved a channel count in excess of 30,000, which is the highest in Asia.
- Diversifying into other forms of geophysical services i.e airborne surveys and geophysical mapping surveys through gravity and magnetic methods





### Leadership



### BOARD OF DIRECTORS

### Mr. Dinesh Alla (Promoter, Chairman and Managing Director)

He is a post graduate from BITS, Pilani and has very rich experience and deep knowledge in seismic / geophysical services for hydrocarbons and mineral exploration.

#### Ms. Savita Alla (Joint Managing Director)

She is a post graduate in Management studies from BITS, Pilani. She served in various managerial positions in corporate sector.

#### Mr. Rajesh Alla (Promoter and Director)

He is a post graduate engineer from Carnegie Mellon University, Pittsburgh, USA and has specialized in Image Processing, Computer Vision and Robotics

#### Mr. Mohan Krishna Reddy (Non-Executive Director)

A finance professional with 3 decades of experience. He has a Master's Degree in Financial Management from Jamnalal Bajaj Institute of Management.

#### Mr. Ashwinder Bhel (Independent Director)

He has a Master's in Business Administration from Case Western Reserve University, Cleveland, Ohio with over two decades of rich and varied experience in the Oil Industry.

#### MANAGEMENT TEAM

Mr. Venkatesa Perumallu Pasumarthy - Chief Financial Officer - Qualified Chartered Accountant. He has over 30 years of experience of finance, taxation and accounting matters.

Ms. Deepa Dutta - Company Secretary - An Associate Member of Institute of Company Secretaries of India. She has completed her graduation in commerce from Patna University. She has around 3 years of experience.

Mr. Balaji Sundararajan - Sr. Vice President (SVP)-Operations - A graduate in Engineering and post-graduate in Mathematics from BITS Pilani. He has over 30 years of experience of which 18 years is in Seismic Industry.

Mr. Anthony Raymond Cheshire - Vice President (Technical Services) - An honours graduate with more than 40 years of experience in the geophysical exploration industry.

Mr. Yogendra Nath Singh - Vice President (Operations) - Holds a Master's Degree in Exploration Geophysics from Banaras Hindu University and has more than 35 years of experience in the seismic industry.

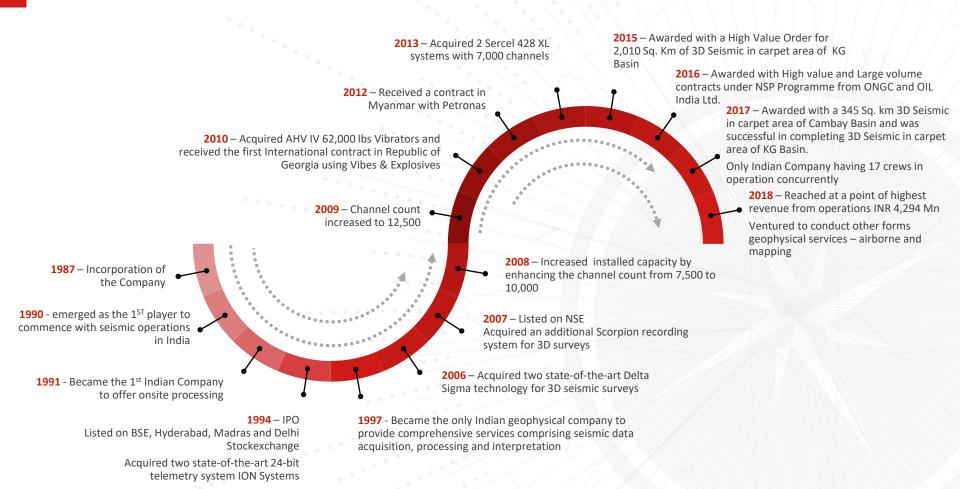
<u>Dr. A.K Chaturvedi - Vice President (Airborne Surveys)</u> – Holds Master's Degree from IIT Kanpur and PhD from Osmania University. He has more than 38 years of experience and specialises in Airborne Surveys, Remote Sensing and GIS based Projects

Mr. Thomas Ajewole - Chief Seismologist - Holds a Degree in Geophysics and has more than 22 years of experience in the seismic industry. He has held functional roles of Seismologist and Party Chief of 2D and 3D onshore data acquisition projects.

Mr. Suresh Rahul Bellap - General Manager (Contracts) - Holds a Bachelor's Degree in Engineering (Mechanical) and has more than 30 years of experience in different industries.

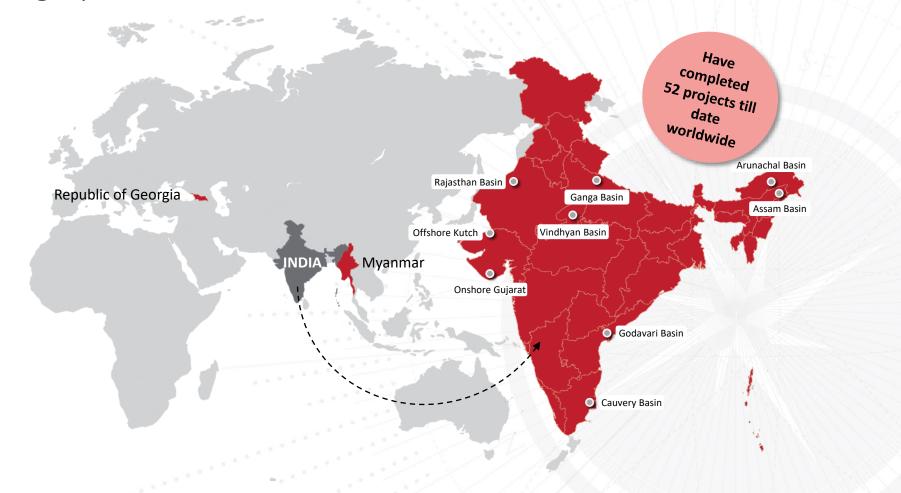
### Key Milestones





# Geographical Presence





# Key Clients



































### <sup>11</sup> Awards & Accolades















## Key Strengths



#### Clients

include all leading National & international Oil & Gas companies

# **Diverse Experience**in understanding of diverse topographies

# Financials boasts of Strong Metrics including low Debt-to-Equity Ratio











#### Technology

and Art Equipment are modern and state-of-theart

#### **Project Management**

is carried out professionally across different regions

#### Execution

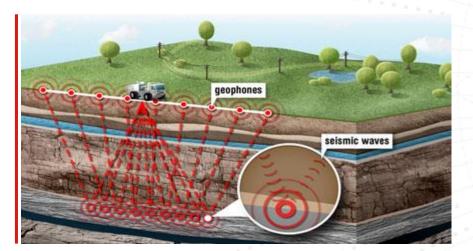
is timely & cost-effective



## Why Seismic Surveys?

ALPHA GEO

- Seismic surveys are primarily used for oil and gas exploration.
- Seismic surveys use reflected sound waves to produce a 'CAT scan' of the Earth's subsurface.
- Seismic images are produced by generating, recording, and analysing sound waves that travel through the Earth (such waves are also called seismic waves). Explosives or vibrating plates generate the waves and a line or grid of geophones records them.
- The seismic waves are created either by small explosive charges set off in shallow holes (shot holes) or by large vehicles equipped with heavy plates ('Vibroseis' trucks) that vibrate on the ground.
- By analysing the time it takes for the seismic waves to reflect off the subsurface formations and return to the surface, a geophysicist can map subsurface formations and anomalies and predict where oil or gas may be trapped in sufficient quantities for exploration activities.



#### Vibroseis Truck



Geophone

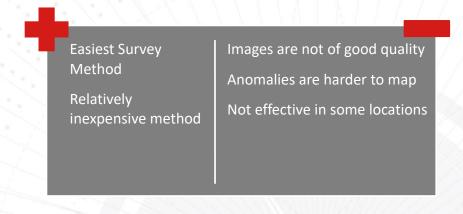


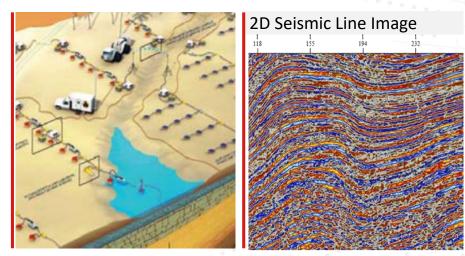
**Explosive** 

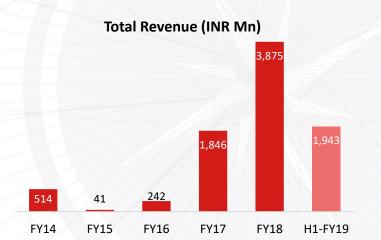


# 2D Technology

- Until recently, seismic surveys were conducted along a single line on the ground, and their analysis created a two-dimensional picture akin to a slice through the earth beneath that line, showing the subsurface geology along that line.
- This is referred to as two-dimensional or 2D seismic data.





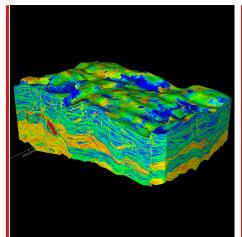


# 3D Technology

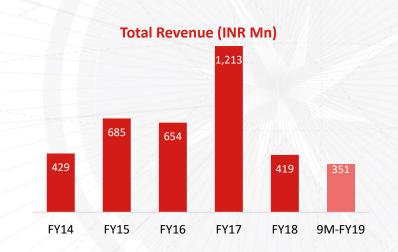


- The basic method of testing is the same as 2D, but instead of a single line of energy source points and receiver points, the source points and receiver points are laid out in a grid over the area to be surveyed.
- The receiver points to record the reflected vibrations from the source points – are laid down in parallel lines (receiver lines), and the source points are laid out in parallel lines that are approximately perpendicular to the receiver lines.

It is easy to recognize structure in It is expensive. almost every type of terrain. Conversion of It is accurate. seismic data to acceptable format It enables detailed mapping of can be time structures. consuming.

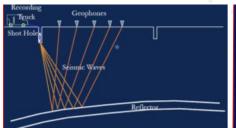






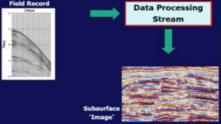
### Services





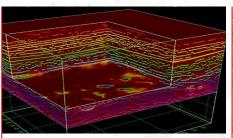
#### **Data Acquisition**

- Surveys are designed based on parameters and objectives defined in 2D, 3D and 3C surveys.
   Direction & layout of lines is also decided.
- Activities are pre-planned based on exclusion zones, inaccessible zones and methodology used to cover the area below exclusion and inaccessible zone is laid down.
- Accuracy and tolerance limit of topographic survey and other aspects of seismic survey is defined.
- Seismic data acquisition in 2D/3D/3C.



#### **Data Processing**

- The data recorded from a seismic survey is originally in its 'raw' form.
- Before it can be used, it must go through a series of computerized processes. These processes make the data useable and require powerful computers and sophisticated computer programs.
- Processing of data can be very expensive, depending on the size of the area surveyed and the amount of data acquired.



#### **Data Interpretation**

- Finally, the resulting processed data must be interpreted by the geophysicist or geologist.
- No two experts will interpret data identically.
- Geology is still a subjective science. The proper interpretation of 3D data is a critical step in the process.
- interpretation services Data include structural and stratigraphic interpretation, generation, evaluation and ranking of prospects and evaluation of blocks for exploration.

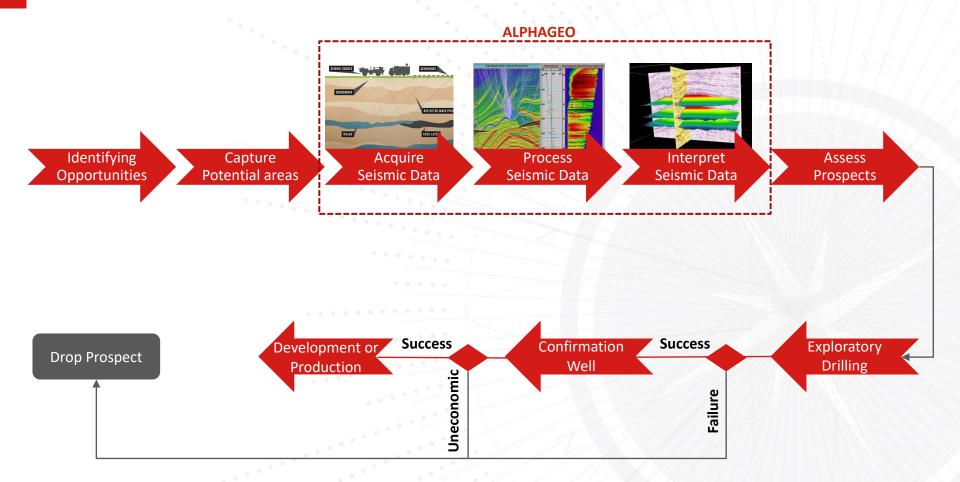


#### Other Services

- Consultancy is provided in studying / analyzing the available data, identifying the need, pre-planning and laying down strategy for acquisition of these data and designing, delineation, development and extent of depletion of the field.
- EM & GM services of API.
- Topographic surveys with GPS and RTK.
- Reservoir data acquisition and Analysis.
- Airborne surveys for mineral exploration; Geophysical mapping surveys through gravity and magnetic methods for identification of potential areas from mineral prognostication point of view.

# Typical Flowchart of Oil & Gas Exploration Companies 🔥 🗚 ДРНА 📖



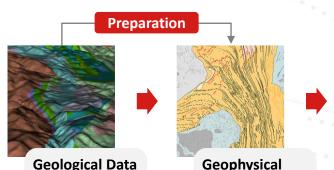


### Detailed Services Flow Chart



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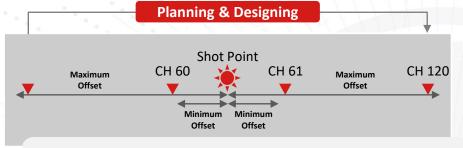


#### **Geological Data**

Data is gathered through Topographic maps & Arial Photos to determine which basins hold sufficient potential.

#### Geophysical Data

Data is then gathered to determine the characteristics and images of the subsurface.



#### **Shot Points & Layout**

 To image the subsurface, decision is made on the placement and layout of shot point (source) and geophones. It also involves the usage of dynamite, vibroseis trucks, hammer or weight drop as a source type.

### Detailed Services Flow Chart



#### **Execution**



GPS used by the Survey Crew for locating the Source & Receiver Points of

**Receiver Point** 

After locating the points, the crew mark the places of source and receiver points finally marking a seismic line.



Drilling Crew uses Jackhammers for shallow holes.



After drilling shot holes, dynamite is loaded in them using dynamite sticks and detonators.



Other than dynamite, Vibroseis trucks are also used.



The crew lay out the Geophones on the seismic lines as a spread.



the Seismic lines,

carried on their

shoulders.

These geophones are connected to each other by the Takeout Cable.



Geophone Plantation is then done.



All the Geophones are connected to a recording truck through which all the information goes into



Recording is then done in the recording truck.



The tape driver records all the data on the magnetic tapes or cartridges.



The data is recorded in Seismograph.

### Order Book / Bid Book Visibility







- Acquisition of 2D Seismic Data on un-appraised land areas of Indian Sedimentary Basins of India, as a part of the National Seismic Program by June 2019.
- Execution of the contract involves addition of 10 seismic crew members to work in various sectors of India covering the states of Karnataka, Maharashtra, Gujarat, Rajasthan, MP, Uttarakhand, Himachal Pradesh and Kashmir to acquire an estimated 26,905 LKM of 2D seismic data.
- Acquisition of 2D Seismic Data in South Geleki Area of Assam & Assam Arakan Basin of India.
- Acquisition of 2D Seismic Data in Ganga-Punjab Basin.





Provision of 2D seismic acquisition services in the areas covering parts of Assam & Arunachal Pradesh for an estimated contract value of INR 102 Cr under National Seismic Program to be executed by March 2019.



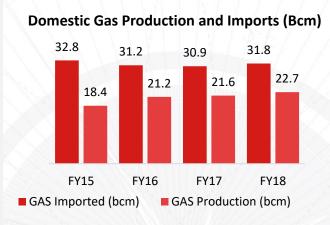


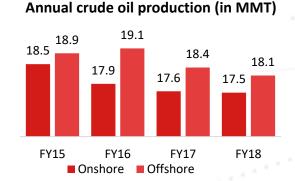
- Airborne Geophysical Surveys in India.
- Ground Geophysical Mapping Survey for creating gravity and magnetic maps with highquality data on ground to delineate the subsurface geology and structures which will help in identification of the target areas for mineral exploration.

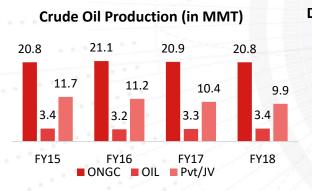
### Oil & Gas Industry

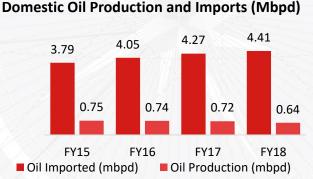


- In India, the Oil and Natural Gas industry has huge potential and contributes over 15% to the India's GDP.
- Prime Minister Narendra Modi's envisions to reduce imports by at least 10% by 2022.
- There are three ways to operationally reduce import dependency of India for oil and natural gas:
  - Enhance production from the producing fields.
  - Reduce depletion rate in the producing fields which are ageing.
  - Discover new basins by appraising the unexplored areas.









## Advantage India





#### **Growing demand**

India is the world's third largest energy consumer globally.

Demand for primary energy in India is expected to increase threefold by 2035 to 1,516 Mn tonnes of oil.



#### **Rapid Expansion**

The oil and gas industry is growing robustly and players are undertaking investments to cater to the burgeoning demand.

The industry is expected to attract USD 25 Bn investments in exploration and production by 2022.





#### **Policy Support**

The Government has enacted various policies such as the OALP policy to encourage the investments.

In September 2018, the Government of India approved fiscal incentive to attract investments and technology to improve recovery from oil fields which is expected to lead to hydrocarbon production worth INR 50 lakh Cr (USD 745.82 Bn) in the next twenty vears.



A

### **Supportive FDI Guidelines**

The government allows 100 per cent Foreign Direct Investment (FDI) in upstream and private sector refining projects.



### Government Policy





Government

Policy

Hydrocarbon Exploration and Licensing Policy (HELP) was introduced in 2016, in order to revamp the oil and gas sector and address various industry concerns in the New Exploration and Licensing Policy (NELP) regime.

#### **Uniform License**

Unlike the multiple license model under NELP, HELP brings in a uniform licensing model.

#### **Open Acreage Policy**

Companies can choose blocks of their choice from the designated area round the year without waiting for roadshows and auctions like in NELP.

#### **Revenue Sharing Model**

#### **Lower Royalty**

A graded system has been introduced Under HELP and lower royalty as compared to NELP has been provided to encourage exploration and production.

National Seismic Programme (NSP) was introduced in 2016, in order to generate seismic data for initiating E&P activities, which envisages 2D seismic surveys of all sedimentary basins of India.

ONGC has been assigned to carry out the survey of 40,835 LKM in 18 states.

OIL has been assigned to carry out 2D seismic API of 7,408 LKM in North Eastern states.

**Discovered Small Fields** was introduced in 2016, with a prime objective to bring Discovered Small Fields to production at the earliest so as to increase the domestic production.

No cess on the oil production and Customs duty exemptions.

Marketing and Pricing Freedom for Crude Oil and Natural Gas.



# Income Statement (Standalone)



PARTICULARS (INR Mn)	FY16	FY17	FY18	9M-FY19
Total Revenue	702	2,979	4,311	2,332
Total Expenses	540	2,029	3,109	1,726
EBITDA	162	950	1,202	606
EBITDA Margins (%)	23.08%	31.89%	27.88%	25.99%
Depreciation	52	180	280	201
Finance Cost	7	41	55	21
PBT	103	729	867	384
Tax	33	249	305	135
PAT	70	480	562	249
PAT Margins (%)	9.97%	16.11%	13.04%	10.68%
EPS (INR)	12.34	85.74	86.05	39.10

# Balance Sheet (Standalone)



PARTICULARS (INR Mn)	FY16	FY17	FY18	H1-FY19	PARTICULARS (INR Mn)	FY16	FY17	FY18	H1-FY19
<b>EQUITIES &amp; LIABILITIES</b>					ASSETS				
Shareholder Funds					Non-Current Assets				
Share Capital	56	61	64	64	Property, Plant & equipment	463	1,085	940	821
Reserves & Surplus	722	1,371	1,995	2,076	Capital work-in-progress	10	10	10	10
					Intangible assets	-	52	33	24
Non-Current Liabilities					Trade Receivables	60	-	-	-
Long-Term Borrowings	-	4	1	-	Deferred tax assets	90	46	69	83
Long-term Provisions	6	9	12	11	Other Non-current Assets (including investment)	133	148	136	134
Trade Payable	21	133	-	-	<b>Current Assets</b>				
<b>Current Liabilities</b>					Inventories	1	3	5	7
Short-term Borrowings	24	473	461	32	Investments	-	-	-	70
Trade Payables	264	631	704	180	Trade Receivables	396	1,574	1,960	176
Other Financial Liabilities	151	513	129	123	Cash & Cash Equivalents	90	256	224	1,015
Other Current Liabilities	8	21	95	3	Short-Term Loans & Advances	-	-	4	-
Short-Term Provisions	1	2	2	1	Other Current Assets	13	64	26	26
Current Tax Liabilities	3	20	-	-	Current tax Asset	-	-	56	124
GRAND TOTAL - EQUITIES & LIABILITES	1,256	3,238	3,463	2,490	GRAND TOTAL – ASSETS	1,256	3,238	3,463	2,490

# Income Statement (Consolidated)



PARTICULARS (INR Mn)	FY16	FY17	FY18	9M-FY19
Total Revenue	905	3,081	4,314	2,332
Total Expenses	618	2,044	3,066	1,737
EBITDA	287	1,037	1,248	595
EBITDA Margins (%)	31.71%	33.66%	28.92%	25.51%
Depreciation	123	237	339	249
Finance Cost	7	41	56	21
PBT	157	759	853	325
Tax	40	253	308	135
PAT	117	506	545	190
PAT Margins (%)	12.92%	16.42%	12.63%	8.15%
EPS (INR)	20.65	85.74	86.05	29.79

# Balance Sheet (Consolidated)

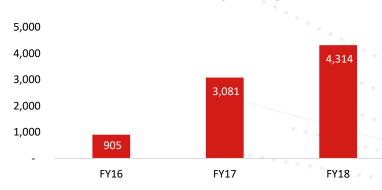


DADTICLU ADC (IND AA.)	EV4.C	EV47	EV4.0	LIA EVAO	DARTICHU ARC (IND NA)	EV4.C	EV4.7	EV4.0	LIA EVA
PARTICULARS (INR Mn)	FY16	FY17	FY18	H1-FY19	PARTICULARS (INR Mn)	FY16	FY17	FY18	H1-FY19
<b>EQUITIES &amp; LIABILITIES</b>					ASSETS				
Shareholder Funds					Non-Current Assets				
Share Capital	56	61	64	64	Property, Plant & equipment	775	1,344	1,121	1,009
Reserves & Surplus	1,015	1,678	2,270	2,371	Capital work-in-progress	10	10	10	10
					Intagible assets	-	59	38	27
Non-Current Liabilities					Trade Receivables	60	-	-	-
Long-Term Borrowings	-	4	1	-	Deferred tax assets	90	46	69	83
Long-Term Provisions	6	9	13	11	Other Non-Current Assets (including investment)	1	15	4	1
Trade Payable	21	133	-	-	<b>Current Assets</b>				
<b>Current Liabilities</b>					Inventories	2	12	10	8
Short-Term Borrowings	24	473	461	32	Investments	-	-	-	70
Trade Payables	279	631	704	180	Trade Receivables	486	1,600	1,960	176
Other Financial Liabilities	150	472	130	124	Cash & Cash Equivalents	124	353	389	1,251
Other Current Liabilities	8	21	95	3	Short-Term Loans & Advances	-	-	56	-
Short-Term Provisions	1	2	2	1	Other Current Assets	15	65	27	27
Current Tax Liabilities	3	20	-	-	Current tax Asset	-	-	56	124
GRAND TOTAL - EQUITIES & LIABILITES	1,563	3,504	3,740	2,786	GRAND TOTAL – ASSETS	1,563	3,504	3,740	2,786

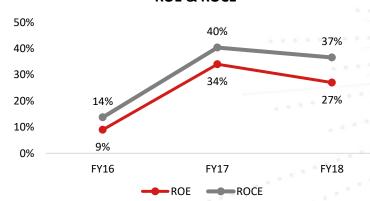
## Financial Highlights



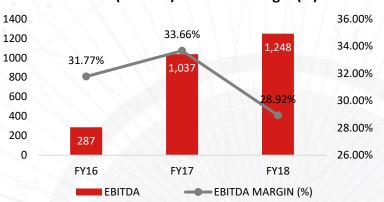




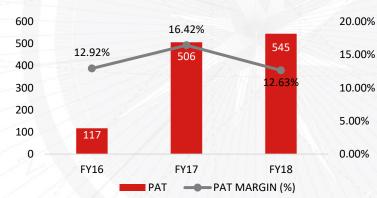
#### **ROE & ROCE**



#### EBIDTA (INR Mn) & EBIDTA Margin (%)



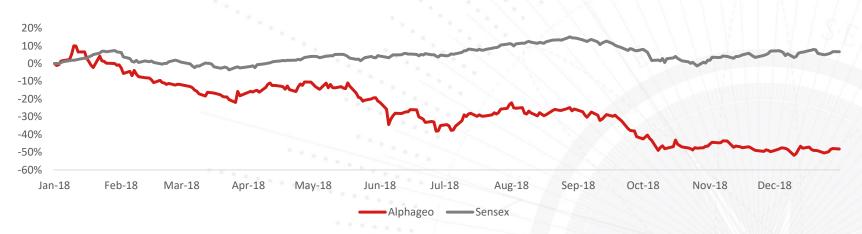
#### PAT (INR Mn) & PAT Margin (%)



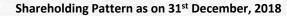
### Market Data

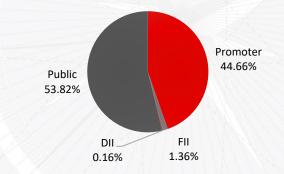


#### **Share Price Performance**



Price Data (31st December, 2018)	INR
CMP	474.8
52 Week H/L (INR)	1,052.65/431.1
Avg. Net Turnover	16.00
Market Cap (INR Mn)	3,022
Equity Shares Outstanding (Mn)	6.36





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THANK YOU