

30/12/2016

To  
Manager (CRD)  
**Bombay Stock Exchange Ltd. (BSE)**  
P.J. Towers, Dalal Street,  
Mumbai 400 001

Manager (CRD)  
**National Stock Exchange of India Ltd. (NSE)**  
Exchange Plaza, Bandra Kurla Complex  
Bandra (E), Mumbai - 400051

**Ref: Script Code- 516064**

**Script Code- ARROWGREEN**

**Sub: Presentation on Business Performance of the Company**

Dear Sir,

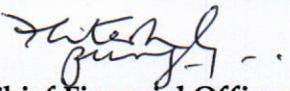
With reference to captioned subject matter, please find enclosed herewith the presentation on business performance of the Company.

This is for your information and records.

Thanking you,

Yours faithfully,

For **Arrow Greentech Limited**



**Chief Financial Officer**

**ARROW GREENTECH LIMITED.**

(FORMERLY KNOWN AS ARROW COATED PRODUCTS LTD.)

Unit No 372, Bldg No 3, 7th Floor, Solitaire Corporate Park, Guru Hargovindji Marg, Chakala, Andheri (East), Mumbai 400093, Maharashtra, INDIA

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CIN No. : L21010MH1992PLC069281



**ARROW**  
GREENTECH LTD.

FORMERLY KNOWN AS ARROW COATED PRODUCTS LTD.

## Investor Presentation — December 2016

[www.arrowgreentech.com](http://www.arrowgreentech.com)

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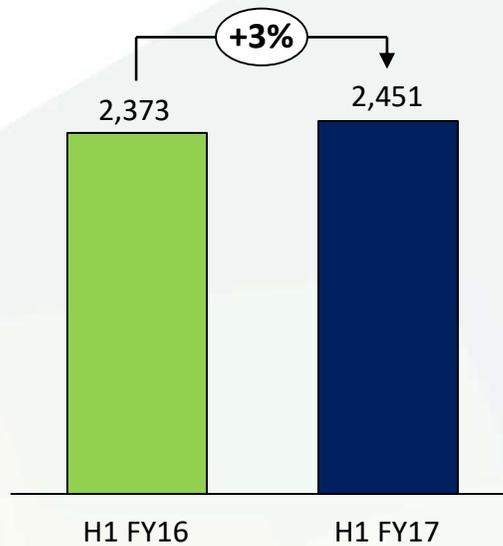


# Result Highlights

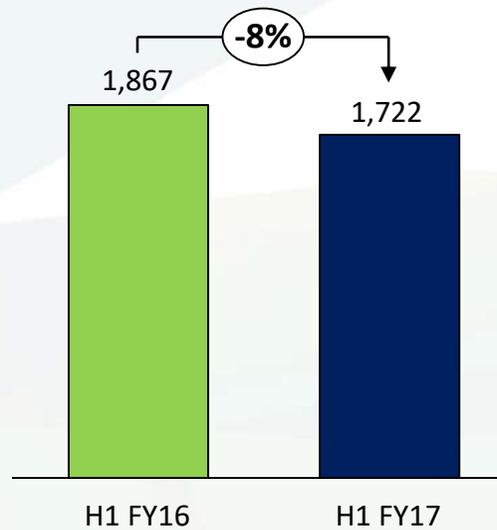


## Consolidated Result Highlights – H1 FY17

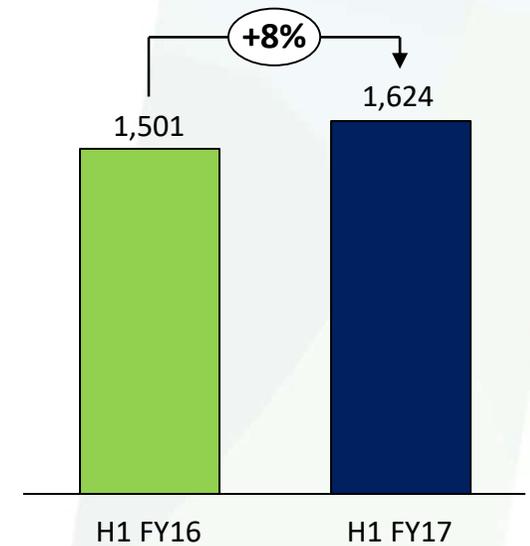
### Revenue



### EBITDA



### PAT

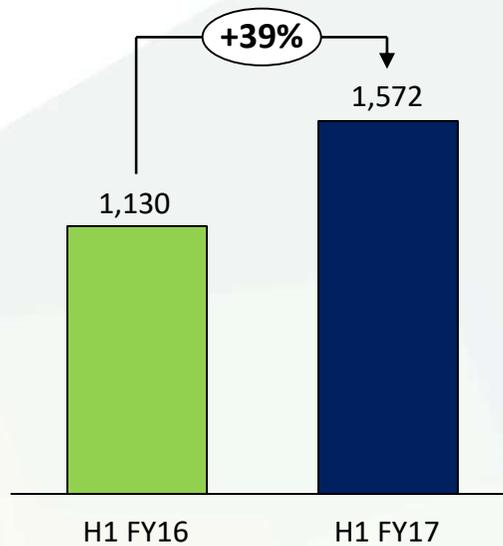


Rs. In Lakhs

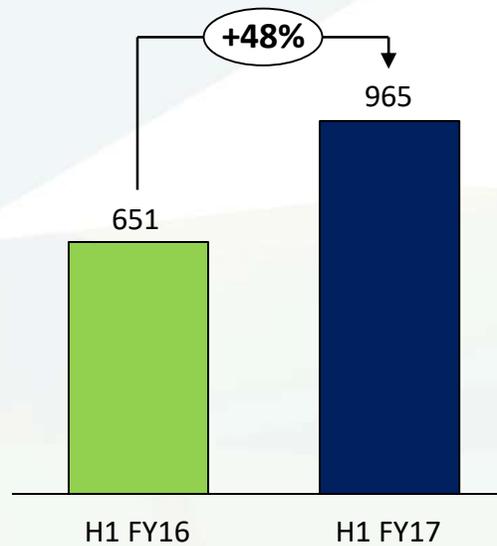


## Standalone Result Highlights – H1 FY17

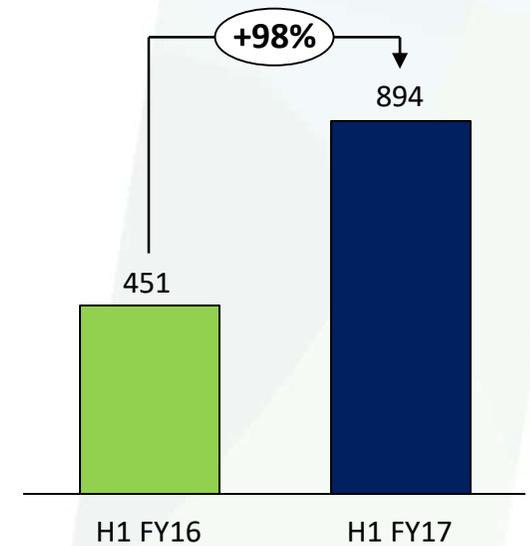
### Revenue



### EBITDA



### PAT



Rs. In Lakhs



# Business Overview



# Business Overview

## 1 Water Soluble Film

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- Development, Production & Marketing of Wide Range of Water Soluble Film

## 2 Intellectual Property

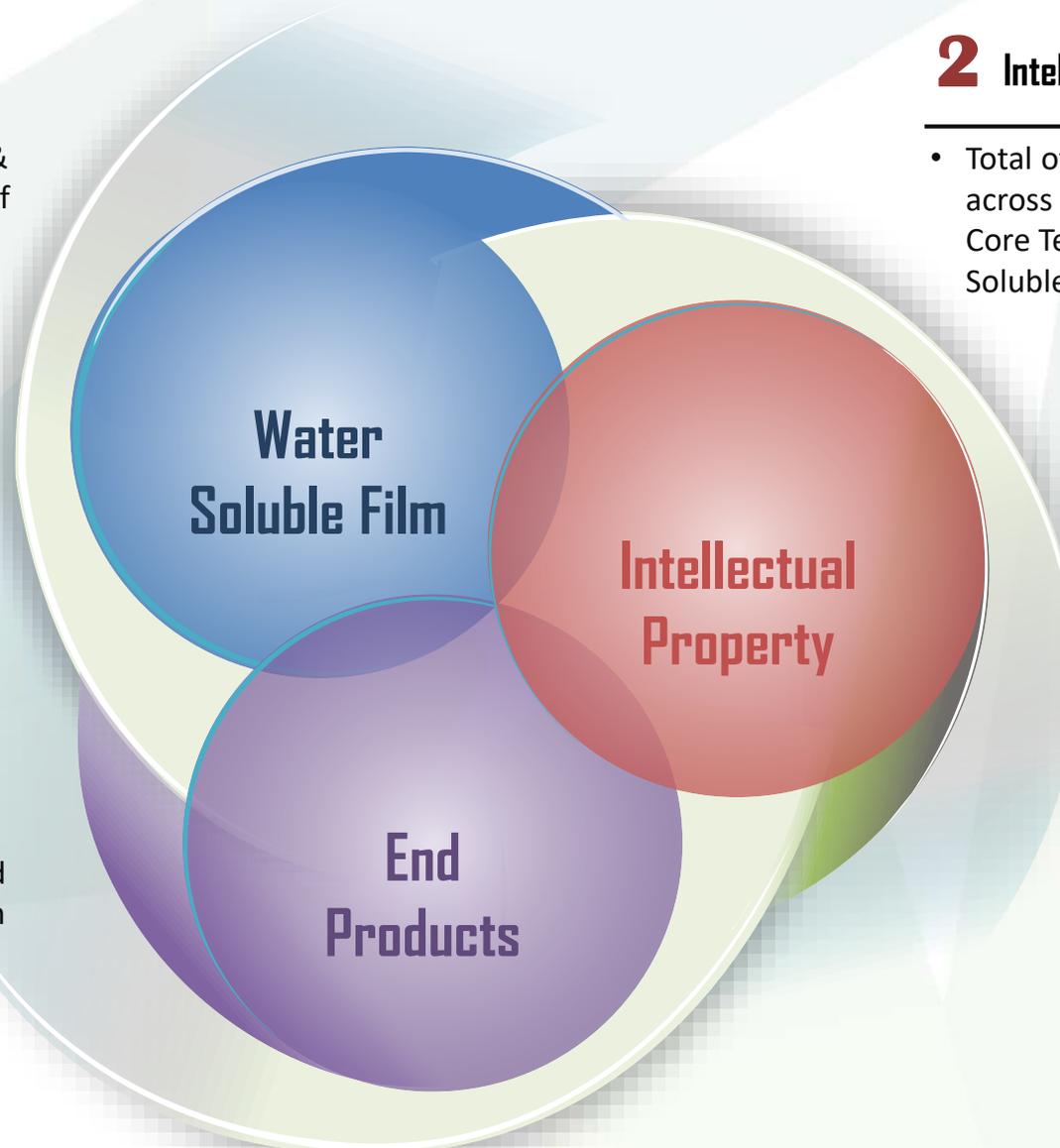
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- Total of 32 granted patents across the World, based on Core Technology of Water Soluble Film

## 3 End Products

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- Arrow Care & Arrow RX range of products developed using the Water Soluble Film Technology



# Water Soluble Film



# What is Water Soluble Film (WSF) ?



**Liquid Detergent  
Packed in WSF**



**Dissolves  
Completely**

## What it is?

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- Water Soluble Film
- Packaging material that is environmentally safe & fully biodegradable when disposed in water or waste

## Properties

---

- Optimum Tensile Strength
- Flexibility for using in multiple forms of packaging
- Excellent Moisture/Heat Sealing
- Eco-friendly

## Applications

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- Industries like Agrochemical, Health & Hygiene, Embroidery, Dyes, Cement, Enzymes, Fish Baits, Edible Films etc.



# Advantages of Water Soluble Film



## Eco Friendly

Dissolves without leaving any harmful residue

## Safe

Avoids direct contact with the toxic product / Cross Contamination

## Easy to Dose

It is precisely dosed = no product wastage

## Convenient

Doses has less storage space and easy to handle

## Varied Industries

Used in varied Industries in multiple ways



## Our Water Soluble Film Business

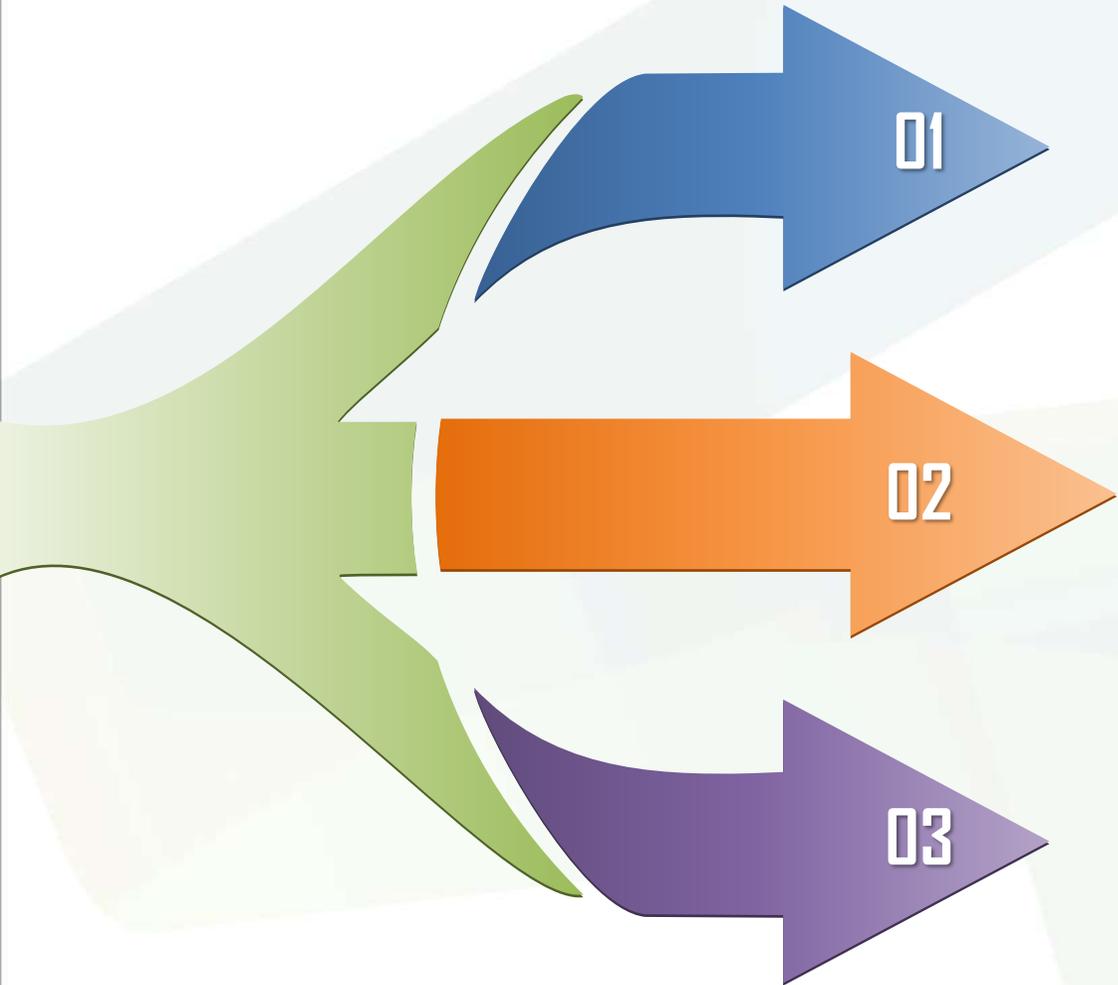
- Sole Manufacturer of Cast Water Soluble Film in India
- State of art Manufacturing Facilities
  - Ankleshwar, Gujarat : ~ 350 Km far from Bombay
  - Land on 99 years renewable lease from GIDC
  - R&D Centre with Modern Equipments
  - Common Utilities and R&D available for future expansion
- Key Industries :
  - Agrochemicals, Embroidery, Detergents, Soap Film Laundry Bags, Capsule Package, Fish Bait, Toilet Blocks, Edible Film based Pharma Films, Dyes, Cement Additives, Enzymes for Bio Toilets etc



**100% compostable, 100% degradable and  
100% eco-friendly**



# Key Entry Barriers



01

## Product Formulation

- Special Chemistry per end use
- Customized Formulations designed for various types of parameters of WSF
- **Example** : Various Water Temperature, time of dissolution and types of Water – Hard, soft, Salty etc

02

## Proprietary Information

- RND outcome is privy to Arrow
- Example : Given a particular material to be packed: Under What Conditions will the WSF dissolve and the Chemical Properties of WSF once it is dissolved

03

## Accelerated Ageing Test

- WSF goes through Accelerated Ageing test under accelerated ageing conditions. This matrix of information is vital to development of right WSF
- To help determine the long-term effects for the purpose of expected shelf life of packed product.

# Intellectual Property



# Key Granted Patents across the Globe

<p>A Process of manufacturing embedded water soluble film system and embedded water soluble film system manufacture by the same India</p>	<p>Water Soluble Drug delivery system U.K.</p>	<p>A water soluble film based matrix to contain samples extracted from living species Europe, India &amp; United States</p>	<p>High security paper and process of manufacture Russia</p>	<p>Self destructive irreversible security packaging film India, Eurasia &amp; Europe</p>
<p>Method of manufacturing embedded water soluble film carrier Australia &amp; South Africa</p>	<p>Substantial Pinhole Free Multilayered Water Soluble Film and Process of manufacture the same India</p>	<p>Edible water soluble packaging film and package made out of the said film India</p>	<p>Method of producing a high security film Europe</p>	<p>A water Soluble Film based Package for Packing Aqueous Liquids India</p>
<p>Substrate for ink jet printing with hydrophobic solvent based ink India</p>	<p>High strength paper and process of manufacture United States</p>	<p>Cast – Extruded or Cast – Cast Combined multilayer water soluble film and process for producing the same India</p>	<p>Method of making High Strength Paper &amp; A Paper manufactured thereof India &amp; South Africa</p>	<p>Method of producing a high security film and high security film produced by the said method United States</p>
<p>Wide format printed graphics without release liner India</p>	<p>Self adhesive materials with a water soluble protective layer South Africa &amp; United States</p>	<p>High Security Film Australia</p>	<p>A process of Preparing a Self Adhesive India</p>	



## Capitalizing – Key Patents

**Actives Embedded Water Soluble Film**

**Drug Delivery Device (Controlled & Bio Digestible)**

**WSF Based Matrix to Collect Samples**

**High Security Paper**

**Self Destructive Irreversible Security Packaging**

# Health & Hygiene : Active Embedded Water Soluble Film

Relates to process for manufacturing embedded/entrapped water-soluble film (WSF) system and water soluble film (WSF) system manufactured by the said process

- Pharmaceutical Industry
- Agrochemical Industry
- Hospitality Industry
- Chemical Industry

**Patent Details**

**Application**

**Grant Details**

**Advantages**

- Patent Granted in India (200301), 24.04.06 ; South Africa (2004/3259), 24.11.04 ; Australia (2002356417), 22.01.09 ; Australia (2012201719), 23.06.2016
- Patent being "Prosecuted to Grant" in Europe (EP2228431) USA (US20110039985)

- Dissolves instantly
- Drug delivery faster
- Quicker reaction
- Novel Drug Delivery System

- Cheaper than conventional technology of drug delivery
- Easy intake
- Sugar free
- Precise Delivery of nutrients to the plant (roots, leaves)

# Health & Hygiene : Drug Delivery Device

Relates to a dosing system which contains active ingredients, embedded within and/or coated upon water soluble or water dispersible polymers

- For Humans
- For Animals
- For Plants

**Patent Details**

**Application**

**Grant Details**

**Advantages**

- Patent Granted in  
United Kingdom (GB2421431)  
India (264545), 05.01.15
- Patent being "Prosecuted to Grant" in  
Europe (EP1865930)  
USA (US20080038326)

- Delivers actives in a controlled manner
- Delivers actives at precise locations
- Bio -digestible
- Can deliver multiple actives
- Less chances of cross contamination in post operative care

# Health & Hygiene : A WSF based matrix to contain samples

Relates to a Water Soluble Film based matrix for collecting

- Blood, Urine, Serum Samples or
- Any other type of samples extracted from living species

## Health Care:

- Provide a water soluble film based matrix for collecting and storing samples extracted from living species for avoiding cross infection or spillage of samples

**Patent Details**

**Application**

**Grant Details**

**Advantages**

- Patent Granted in  
India (251630), 27.03.12  
USA (8673236), 18.03.14  
Europe (2040921), 24.07.13

- Eliminate problem of disposal of used containers
- Non contaminating container for collecting liquid and semi solid bio waste
- Retrieve the samples collected, by dissolving the Matrix, for analysis

# Security : High Security Paper

A security paper having one or more of a security feature inserted at precise locations on or within the paper by using a polymeric article as a carrier for the security feature(s)

## Paper based Products:

- Bank Notes
- Passports
- Postage Stamps
- Certificates etc

**Patent Details**

**Application**

**Grant Details**

**Advantages**

- Patent Granted in Russia (2409473), 20.01.11
- Patent being "Prosecuted to Grant" in India (312/MUM/05) Europe (EP1871952)

- High – Value Security Packaging for the documents
- To maintain Secrecy of Important Documents

# Security : Self Destructive Irreversible Security Packaging

A self destructive irreversible security packaging water soluble film and method for manufacturing the same.

## Chemical & Agro Packaging

- Water soluble packaging film is embedded with various security elements, which will get destroyed irreversibly upon final usage as the whole package along with its contents will dissolve in water

**Patent Details**

**Application**

**Grant Details**

**Advantages**

- Patent Granted in  
India (227842), 21.01.09  
Eurasia (012856), 30.12.09  
Europe (1868818), 05.05.10
- Patent being "Prosecuted to Grant" in  
USA (US20080190808)

Packaged Pesticides, Chemicals(to avoid counterfeiting), Packed FMCG goods with track and trace security system (to avoid grey marketing) , Security Labels etc

# End Products





## Arrow Security

- Granted Patent Rights across the world and part of its security Patent Portfolio
- Security films for manufacturing of high security paper such as banknote, passport and non-judicial stamp papers, or for brand protection applications
- These patents are managed by dedicated IP cell of Arrow Greentech Ltd



- **Exclusive arrangement with Trace Tag International Ltd (TTI, UK) for integration and use of Tracetag's DNA taggants within security documents**
- **TTI and AGTL have decided to pursue their joint developments and to commercialize resulting applications to their mutual benefit in the field of security documents**



## Arrow Care

- **Meltz** – It's a small breath strip which creates freshness, killing all the bad breath germs
- It dissolves instantly when placed on the tongue
- Approved from FSSAI and other licensing authorities in India



**Meltz**

- **Carez** – Small thin Soap Strips convenient to carry and use
- Economically priced, no wastage, and no residue left after wash
- Laboratory Tested Product



**Carez**

- **Klenz** – Concentrated Capsule to refill a bottle for household cleaning
- Innovative product for specialised Glass cleaner, Antibacterial & Multipurpose Cleaner
- Time Saving, Cost Saving, Space Saving



**Klenz**

# Arrow RX

## MMS<sup>TM</sup> Films – NDDS

- Mouth Melting Strips (MMS) - Thin Films loaded with Actives for Drug Delivery
- Taken Orally and melts instantaneously in the mouth when placed on or under the tongue
- The active substance enters the bloodstream directly via the oral mucosa without having to pass through the gastrointestinal tract



## Novel Drug Delivery Device -NDDD

- DDD contains Actives embedded within and/or coated upon Water Soluble or Water Dispersible Polymers
- The active ingredients are released at a precise – controlled rate from a readily soluble polymer into an aqueous environment through one or more perforated bio-digestible films, post which DDD dissolves overtime and is bio absorbed over time



## RX Matrix

- Novel system of collecting and storing blood samples, urine samples, serum samples or any other type of samples extracted from living species to avoid cross infection or spillage of the samples
- It eliminates the problem of disposal of used containers
- Non contaminating container for collecting liquid and semi solid bio waste



# Future Outlook



## Future Outlook



### Water Soluble Film

#### Capacity Expansion

Increase Capacity of High Value Water Soluble Film



### Intellectual Property

#### Monetizing

Monetize the existing Patents by selling or licensing the Patents

R&D to develop more of Products & Processes and file New Patents



### Business to Consumer

#### Partner / JV

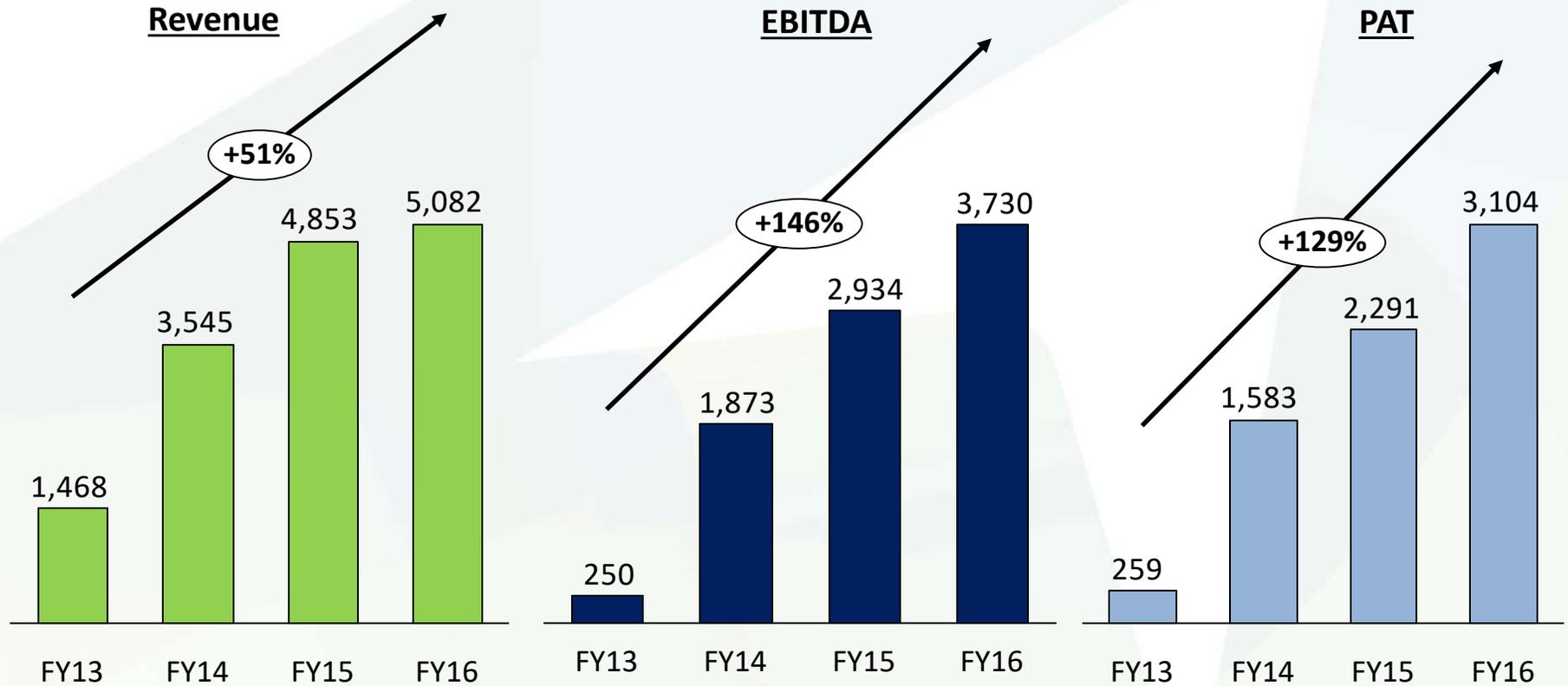
Partner / JV with the players in the FMCG and Pharmaceuticals to develop products for the end consumers using our Patents

Water Soluble Film / Packaging to be provided by Arrow Greentech Film Division

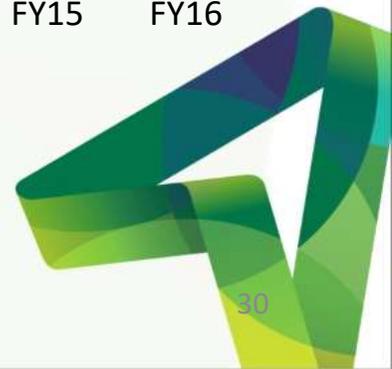
# Financials



## Financial Highlights - Consolidated



Rs. In Lakhs



## Consolidated Profit & Loss Statement

Particulars (Rs. in lakhs)	Q2FY17	Q2FY16	Y-o-Y	H1FY17	H1FY16	Y-o-Y	FY16
<b>Total Revenue</b>	<b>1,235.4</b>	<b>1,233.6</b>		<b>2,450.9</b>	<b>2,372.7</b>		<b>5,081.6</b>
Cost of Material Consumed	59.2	59.6		108.2	98.6		189.2
Purchase of Stock In Trade	0.2	0.0		0.2	0.0		58.4
Changes in Inventories	28.3	14.6		32.7	6.4		-15.4
Employee Expenses	104.0	61.4		190.9	118.1		273.4
Other Expenses	196.1	133.2		396.9	282.2		849.0
<b>EBITDA</b>	<b>847.6</b>	<b>964.8</b>	<b>-12%</b>	<b>1,722.0</b>	<b>1,867.4</b>	<b>-8%</b>	<b>3,727.0</b>
<b>EBITDA %</b>	<b>68.6%</b>	<b>78.2%</b>		<b>70.3%</b>	<b>78.7%</b>		<b>73.3%</b>
Other Income	69.4	99.1		208.7	114.7		467.7
Depreciation	50.8	24.5		76.1	51.5		105.7
<b>EBIT</b>	<b>866.2</b>	<b>1,039.3</b>	<b>-17%</b>	<b>1,854.7</b>	<b>1,930.6</b>	<b>-4%</b>	<b>4,089.0</b>
<b>EBIT (%)</b>	<b>70.1%</b>	<b>84.3%</b>		<b>75.7%</b>	<b>81.4%</b>		<b>80.5%</b>
Finance Cost	0.0	0.0		0.0	0.0		0.0
<b>Profit before Tax</b>	<b>866.2</b>	<b>1,039.3</b>	<b>-17%</b>	<b>1,854.7</b>	<b>1,930.6</b>	<b>-4%</b>	<b>4,089.0</b>
Tax	38.0	219.8		206.5	403.4		984.7
<b>Profit after Tax</b>	<b>828.2</b>	<b>819.5</b>	<b>1%</b>	<b>1,648.2</b>	<b>1,527.2</b>	<b>8%</b>	<b>3,104.3</b>
<b>PAT %</b>	<b>67.0%</b>	<b>66.4%</b>		<b>67.2%</b>	<b>64.4%</b>		<b>61.1%</b>
Minority Interest	10.6	18.0		24.6	26.4		67.4
<b>PAT after Minority Interest</b>	<b>817.6</b>	<b>801.5</b>	<b>2%</b>	<b>1,623.6</b>	<b>1,500.8</b>	<b>8%</b>	<b>3,036.9</b>
<b>PAT after Minority Interest (%)</b>	<b>66.2%</b>	<b>65.0%</b>		<b>66.2%</b>	<b>63.3%</b>		<b>59.8%</b>
<b>EPS</b>	<b>6.96</b>	<b>6.83</b>		<b>13.83</b>	<b>12.78</b>		<b>25.87</b>



## Standalone Profit & Loss Statement

Particulars (in lakhs)	Q2FY17	Q2FY16	Y-o-Y	H1FY17	H1FY16	Y-o-Y	FY16
<b>Net Income from Operations</b>	<b>854.9</b>	<b>619.4</b>	<b>38%</b>	<b>1,571.9</b>	<b>1,129.8</b>		<b>2,266.3</b>
Cost of Material Consumed	59.2	59.6		108.2	98.6		189.2
Purchase of Stock In Trade	0.2	0.0		0.2	0.0		58.4
Changes in Inventories	28.4	14.6		33.6	6.9		-15.7
Employee Expenses	101.6	61.0		186.1	113.8		264.6
Other Expenses	162.5	126.8		278.7	259.4		618.5
<b>EBITDA</b>	<b>503.1</b>	<b>357.4</b>	<b>41%</b>	<b>965.1</b>	<b>651.1</b>	<b>48%</b>	<b>1,151.3</b>
<b>EBITDA %</b>	<b>58.8%</b>	<b>57.7%</b>		<b>61.4%</b>	<b>57.6%</b>		<b>50.8%</b>
Other Income	39.5	27.5		71.8	40.8		534.1
Depreciation	37.6	24.0		59.0	47.8		97.5
<b>EBIT</b>	<b>505.0</b>	<b>361.0</b>	<b>40%</b>	<b>977.9</b>	<b>644.0</b>	<b>52%</b>	<b>1,587.9</b>
<b>EBIT (%)</b>	<b>59.1%</b>	<b>58.3%</b>		<b>62.2%</b>	<b>57.0%</b>		<b>70.1%</b>
Finance Cost	0.0	0.0		0.0	0.0		0.0
<b>Profit before Tax</b>	<b>505.0</b>	<b>361.0</b>	<b>40%</b>	<b>977.9</b>	<b>644.0</b>	<b>52%</b>	<b>1,587.9</b>
Tax	-13.2	95.4		83.8	192.9		484.0
<b>Profit after Tax</b>	<b>518.3</b>	<b>265.6</b>	<b>95%</b>	<b>894.1</b>	<b>451.1</b>	<b>98%</b>	<b>1,104.0</b>
<b>PAT %</b>	<b>60.6%</b>	<b>42.9%</b>		<b>56.9%</b>	<b>39.9%</b>		<b>48.7%</b>
<b>EPS</b>	<b>4.41</b>	<b>2.26</b>		<b>7.62</b>	<b>3.84</b>		<b>9.40</b>



## Consolidated Balance Sheet

Equity & Liabilities (in lakhs)	Sep-16	Mar-16
Share Capital	1,174	1,174
Total Reserves	7,267	5,764
Minority Interest	151	126
<b>Shareholder's Funds</b>	<b>8,592</b>	<b>7,064</b>
Long Term Borrowings	5	5
Deferred Tax Liabilities (net)	8	24
Other Long Term liabilities	0	0
Long Term Provisions	11	10
<b>Total Non-Current Liabilities</b>	<b>25</b>	<b>39</b>
Short Term Borrowings	0	0
Trade Payables	293	323
Other Current liabilities	329	207
Short Term Provisions	505	932
<b>Total Current Liabilities</b>	<b>1,127</b>	<b>1,462</b>
<b>Total Equity &amp; Liabilities</b>	<b>9,743</b>	<b>8,565</b>

Assets (in lakhs)	Sep-16	Mar-16
Tangible Assets	1,439	1,494
Intangible Assets	123	100
Capital work-in-progress	244	6
Intangible Assets under dev.	108	126
<b>Fixed Assets</b>	<b>1,914</b>	<b>1,726</b>
Non-Current Investments	1,733	1,525
Long Term Loans and Advances	573	248
Other Non Current Assets	23	11
<b>Total Non-Current Assets</b>	<b>4,243</b>	<b>3,510</b>
Inventories	85	99
Trade Receivables	906	559
Cash and Cash Equivalents	4,215	4,071
Short Term Loans and Advances	186	322
Other Current Assets	108	4
<b>Total Current Assets</b>	<b>5,500</b>	<b>5,055</b>
<b>Total Assets</b>	<b>9,743</b>	<b>8,565</b>

## Standalone Balance Sheet

Liabilities (in lakhs)	Sep-16	Mar-16
Share Capital	1,174	1,174
Total Reserves	2,467	1,573
<b>Shareholder's Funds</b>	<b>3,641</b>	<b>2,747</b>
Deferred Tax Liabilities (net)	9	24
Other Long Term liabilities	0	0
Long Term Provisions	11	8
<b>Total Non-Current Liabilities</b>	<b>20</b>	<b>32</b>
Trade Payables	255	206
Other Current liabilities	311	137
Short Term Provisions	35	212
<b>Total Current Liabilities</b>	<b>601</b>	<b>555</b>
<b>Total Equity &amp; Liabilities</b>	<b>4,263</b>	<b>3,335</b>

Assets (in lakhs)	Sep-16	Mar-16
Tangible Assets	408	442
Intangible Assets	93	70
Capital work-in-progress	244	6
Intangible Assets under dev.	108	126
<b>Fixed Assets</b>	<b>853</b>	<b>644</b>
Non-Current Investments	1,794	1,585
Long Term Loans and Advances	480	160
Other Non Current Assets	22	18
<b>Total Non-Current Assets</b>	<b>3,149</b>	<b>2,407</b>
Inventories	77	94
Trade Receivables	339	57
Cash and Cash Equivalents	461	544
Short Term Loans and Advances	129	128
Other Current Assets	108	105
<b>Total Current Assets</b>	<b>1,114</b>	<b>927</b>
<b>Total Assets</b>	<b>4,263</b>	<b>3,335</b>

## For further information, please contact

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