



Advancing each generation.



1st Quarter Earnings Conference

April 11, 2016

Important Information

Forward-Looking Statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “plans,” “projects,” “seeks,” “sees,” “should,” “targets,” “will,” “would,” or other words of similar meaning. All statements that reflect Alcoa’s expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for aluminum, supply/demand balances, and growth of the aerospace, automotive, and other end markets; statements regarding targeted financial results or operating performance; statements about Alcoa’s strategies, outlook, business and financial prospects; and statements regarding the separation transaction, including the future performance of Value-Add Company and Upstream Company if the separation is completed, the expected benefits of the separation, and the expected timing of the Form 10 filing and the completion of the separation. Forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) uncertainties as to the timing of the separation and whether it will be completed; (b) the possibility that various closing conditions for the separation may not be satisfied; (c) failure of the separation to qualify for the expected tax treatment; (d) the possibility that any third-party consents required in connection with the separation will not be received; (e) the impact of the separation on the businesses of Alcoa; (f) the risk that the businesses will not be separated successfully or such separation may be more difficult, time-consuming or costly than expected, which could result in additional demands on Alcoa’s resources, systems, procedures and controls, disruption of its ongoing business and diversion of management’s attention from other business concerns; (g) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum, alumina, and other products, and fluctuations in indexed-based and spot prices for alumina;; (h) deterioration in global economic and financial market conditions generally; (i) unfavorable changes in the markets served by Alcoa; (j) the impact of changes in foreign currency exchange rates on costs and results; (k) increases in energy costs; (l) the inability to achieve the level of revenue growth, cash generation, cost savings, improvement in profitability and margins, fiscal discipline, or strengthening of competitiveness and operations (including executing on the business improvement plans, moving the Upstream alumina and aluminum businesses down on the industry cost curves, and increasing revenues and improving margins in the Value-Add businesses) anticipated from restructuring programs and productivity improvement, cash sustainability, technology advancements (including, without limitation, advanced aluminum alloys, Alcoa Micromill, and other materials and processes), and other initiatives; (m) Alcoa’s inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, or expansions, or international joint ventures; (n) political, economic, and regulatory risks in the countries in which Alcoa operates or sells products; (o) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (p) the impact of cyber attacks and potential information technology or data security breaches; (q) the potential failure to retain key employees while the separation transaction is pending or after it is completed; (r) the risk that increased debt levels, deterioration in debt protection metrics, contraction in liquidity, or other factors could adversely affect the targeted credit ratings for Value-Add Company or Upstream Company; and (s) the other risk factors discussed in Alcoa’s Form 10-K for the year ended December 31, 2015, and other reports filed with the U.S. Securities and Exchange Commission (SEC). Alcoa disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks discussed above and other risks in the market.

Important Information (continued)

Non-GAAP Financial Measures

Some of the information included in this presentation is derived from Alcoa's consolidated financial information but is not presented in Alcoa's financial statements prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). Certain of these data are considered "non-GAAP financial measures" under SEC rules. These non-GAAP financial measures supplement our GAAP disclosures and should not be considered an alternative to the GAAP measure. Reconciliations to the most directly comparable GAAP financial measures and management's rationale for the use of the non-GAAP financial measures can be found in the Appendix to this presentation. Alcoa has not provided a reconciliation of any forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures, due primarily to variability and difficulty in making accurate forecasts and projections, as not all of the information necessary for a quantitative reconciliation is available to Alcoa without unreasonable effort. Any reference to historical EBITDA means adjusted EBITDA, for which we have provided calculations and reconciliations in the Appendix.



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Klaus Kleinfeld

Chairman and Chief Executive Officer

April 11, 2016

Delivering Solid Performance, Strong Productivity – Separation on Track

1Q 2016 Overview



ARCONIC

Innovation, engineered.

- **Arconic Segments (Value-Add) Revenue \$3.3B down 2.2% YoY:** 6.7% revenue increase predominantly related to acquisitions, offset by 8.3% decline from metal and foreign exchange and 0.6% revenue decline from divested or closed operations
- **ATOI of \$269M, up 8% YoY, adj. EBITDA \$537M, up 7% YoY, Record adjusted EBITDA margin 16.4%**
 - **Global Rolled Products:** \$68m ATOI, up 26% YoY and adjusted EBITDA per metric ton \$374, up 8% YoY due to **strong cost control**; automotive sheet shipment **growth up 38% YoY**
 - **Engineered Products and Solutions:** Record Q1 Revenue of \$1.4B; Record 1Q ATOI of \$162M, up 4% YoY and adjusted EBITDA margin of 21.0%; Aerospace sales up 14% YoY
 - **Transportation and Construction Solutions:** \$39M ATOI, up 3% YoY, Record 1Q adjusted EBITDA margin of 14.9%
- **Supply Agreement for 3D-printed titanium fuselage and engine pylon parts to Airbus**
- **Multi-year ~\$1B contract for advanced Industrial Gas Turbine (IGT) components, Alcoa's largest IGT contract to date**
- **Agreement to sell RTI Remmele Medical business for \$102m**
- **Achieved \$179 million in Productivity savings, on target to deliver \$650 million in 2016**
- **Global Rolled Products, Transportation and Construction Solutions on track to meet three-year 2016 targets; New goals set for EPS to better reflect aerospace market conditions and Firth Rixson performance**



- **New Alcoa Segments (Upstream) 3rd Party Revenue of \$1.7B down 32.2% YoY:** 4.5% revenue increase from organic growth more than offset by 26.1% revenue decline due to lower pricing and foreign exchange impacts and 10.6% revenue decline predominantly related to curtailed or closed operations
- Total Revenue of \$2.1B, ATOI of \$22 million, and adj. EBITDA of \$185M
 - **Profitable Alumina and Primary Metals segments** despite 19% price decline in API, and flat aluminum pricing, sequentially; YoY declines of 40% and 26%, respectively
- Signed new **Third-Party Bauxite Contracts** valued at over **\$350 million** over the next two years
- **Ma'aden-Alcoa joint venture refinery** continued to ramp-up, now at **80% of nameplate capacity**
- **Pt. Comfort, Texas refinery** on track to be **fully curtailed by end of second quarter**; closed Warrick smelter in Indiana
- Achieved **\$175 million in productivity savings**, on target to **deliver \$550 million in 2016**
- **Sold stake in Dampier to Bunbury Natural Gas Pipeline** in Western Australia (WA) for **\$154m. Gas supply secured** for three WA alumina refineries
- **On track to meet 2016 Cost Curve Goals: 21st percentile in Alumina and 38th percentile in Primary Metals**

**Separation
on Track**

- Launched **New Value-Add Brand "Arconic" & Refreshed New Alcoa Brand**
- **Form 10** to be filed in first half 2016



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William Oplinger

Executive Vice President and Chief Financial Officer

April 11, 2016

Income Statement Summary

\$ Millions, except aluminum prices and per-share amounts

	1Q15	4Q15	1Q16	Prior Year Change	Sequential Change
Realized Aluminum Price (\$/MT)	\$2,420	\$1,799	\$1,793	(\$627)	(\$6)
Revenue	\$5,819	\$5,245	\$4,947	(\$872)	(\$298)
Cost of Goods Sold	\$4,443	\$4,404	\$4,041	(\$402)	(\$363)
COGS % Revenue	76.4%	84.0%	81.7%	5.3 % pts.	(2.3 % pts.)
Selling, General Administrative, Other	\$232	\$262	\$260	\$28	(\$2)
SGA % Revenue	4.0%	5.0%	5.3%	1.3 % pts.	0.3 % pts.
Other (Income) Expenses, Net	(\$12)	\$29	\$34	\$46	\$5
Restructuring and Other Charges	\$177	\$735	\$93	(\$84)	(\$642)
Effective Tax Rate	47.0%	(6.1%)	73.2%	26.2 % pts.	79.3 % pts.
EBITDA	\$1,089	\$519	\$603	(\$486)	\$84
Net Income (Loss)	\$195	(\$701)	\$16	(\$179)	\$717
Net Income (Loss) per Diluted Share	\$0.14	(\$0.55)	\$0.00	(\$0.14)	\$0.55
Income excl. Special Items	\$363	\$65	\$108	(\$255)	\$43
Income per Diluted Share excl. Special Items	\$0.28	\$0.04	\$0.07	(\$0.21)	\$0.03

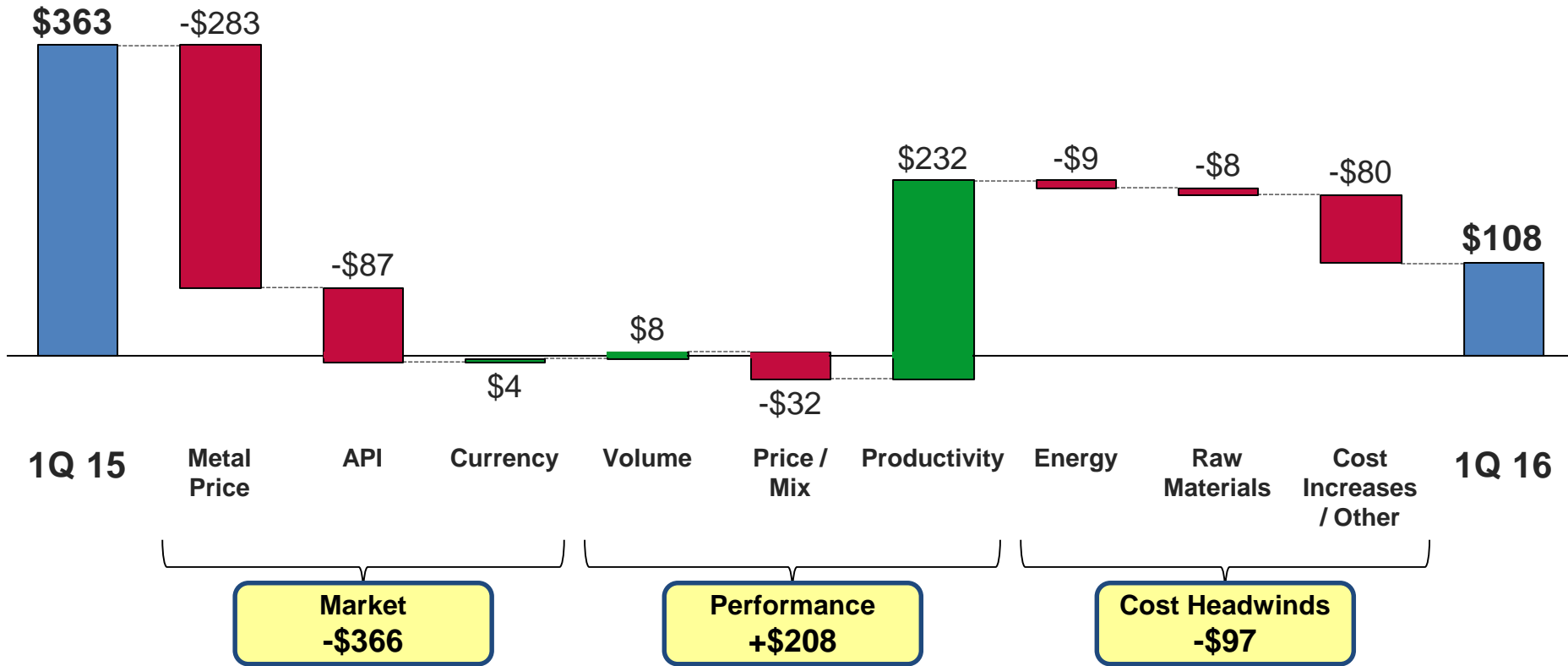
Special Items

\$ Millions, except per-share amounts

	1Q15	4Q15	1Q16	Income Statement Classification	Segment
Net Income (Loss)	\$195	(\$701)	\$16		
Net Income (Loss) per Diluted Share	\$0.14	(\$0.55)	\$0.00		
Restructuring-Related	(\$158)	(\$287)	(\$63)	Restructuring and Other Charges/COGS	Corporate/All
Tax Items	(\$4)	(\$189)	(\$12)	Income Taxes	Corporate
Portfolio Transaction Costs	(\$7)	(\$12)	(\$17)	SG&A	Corporate
Mark-to-Market Energy Contracts	\$1	(\$5)	-	Other Expenses, Net	Corporate
Italian Energy Matter	-	(\$201)	-	Restructuring and Other Charges	Corporate
Q4'15 Overhead Reduction Program	-	(\$47)	-	Restructuring and Other Charges/COGS	Corporate
Goodwill Impairment	-	(\$25)	-	Impairment of Goodwill	Corporate
Special Items	(\$168)	(\$766)	(\$92)		
Net Income excl. Special Items	\$363	\$65	\$108		
Net Income per Diluted Share excl. Special Items	\$0.28	\$0.04	\$0.07		

Adjusted Earnings Down on Lower LME, API and Regional Premiums

Net Income excluding Special Items (\$ Millions)



Note: Metal Price = LME + Regional Premium; Regional Premium previously reported in Price/Mix category
See appendix for Adjusted Income reconciliation

GRP: Productivity and Auto Uplift Offset Headwinds

1Q16 Actual and 2Q16 Outlook – Global Rolled Products

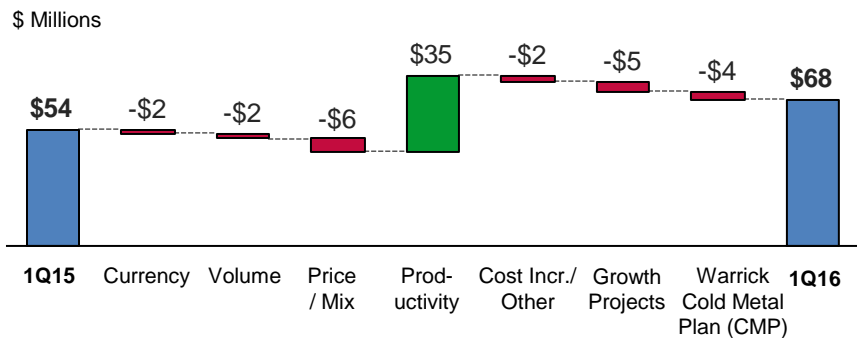
1st Quarter ATOI Results

	1Q 15 ¹	4Q 15	1Q 16
3 rd Party Revenue (\$ Millions)	1,621	1,422	1,397
3 rd Party Conversion Revenue (\$ Millions)	757	732	737
ATOI (\$ Millions)	54	52	68
EBITDA/MT (\$)	347	312	374²

1st Quarter Business Highlights

- **EBITDA/MT up 12% YoY** excluding impact to secure alternative metal supply at Warrick
- **Auto sheet shipments up 38%** year-over-year
- **Volume and pricing pressure from packaging**, Lower demand from **Aero** due to inventory overhang and significantly **reduced N.A. heavy duty truck** build rates
- **Continued investments of \$5M** in Growth projects including **Micromill™ R&D**, **Saudi JV** and **throughput/capacity increases** at key plants
- **Strong productivity** more than offset cost increases

1st Quarter ATOI Performance Bridge



2nd Quarter Year-over-Year Outlook

- **Auto sheet shipments** expected to be **up ~35%** as Tennessee Auto ramp-up accelerates
- Continued **pricing pressure from packaging**
- Lower demand from **Aero** due to new model transition and **reduced N.A. heavy duty truck** build rates expected to continue
- **ATOI is expected to be up 5-7% excluding \$15M impact to secure alternative metal supply at Warrick**, and current currency rates

1. 1Q15 amounts have been revised to remove impact of metal price lag 2. EBITDA/MT include impact from Warrick metal supply. Without that impact, EBITDA/MT is \$390. See appendix for additional information and EBITDA reconciliation.

EPS: Strong Productivity and Benefits From Acquisitions

1Q16 Actual and 2Q16 Outlook – Engineered Products and Solutions

1st Quarter ATOI Results

	1Q 15 ¹	4Q 15	1Q 16
3 rd Party Revenue (\$ Millions)	1,257	1,409	1,449
ATOI (\$ Millions)	156	123	162
EBITDA Margin	22.4% ³	17.3%	21.0%

1st Quarter Business Highlights

- **Revenue growth of 15% year-over-year** driven by **acquisitions**, partially offset by **pricing pressure**, **inventory overhang** in **Aero OEMs**, and **softening markets**
- **Alcoa Titanium and Engineered Products (ATEP)² ATOI of +\$17M; EBITDA margin at 18.7%**, above 1Q'15 of 14.1%³
- Year-over-year **improvement** driven by **productivity and ATEP**

1st Quarter ATOI Performance Bridge

\$ Millions



2nd Quarter Year-over-Year Outlook

- **Aerospace market remains strong** despite **slower ramp up of next generation platforms** due to **simultaneous launches of new technologies** and **inventory overhangs** at **OEMs**
- **Oil & Gas, European Industrial Gas Turbine, North America Commercial Transportation** markets increasingly **softer**
- **Pricing pressure** across **all markets, except IGT**
- **Share gains** through **innovation** and **productivity** continue
- **ATOI is expected to be up 5% to 10% year-over-year**

¹1Q15 amounts have been revised to remove impact of metal price lag; see appendix for additional information & EBITDA reconciliation. ²ATEP: created from RTI acquisition. ³EBITDA margin excludes impact of \$4.7 million of transaction costs

TCS: Strong Productivity Offsets Market Headwinds

1Q16 Actual and 2Q16 Outlook – Transportation and Construction Solutions

1st Quarter ATOI Results

	1Q 15 ¹	4Q 15	1Q 16
3 rd Party Revenue (\$ Millions)	471	444	429
ATOI (\$ Millions)	38	40	39
EBITDA Margin	13.4%	14.6%	14.9%

1st Quarter Business Highlights

- **Revenue down 9%** year-over-year; attributable to **N.A. Heavy Duty Truck** and relatively weak **Brazilian** markets
- **Record Q1 EBITDA margin of 14.9%**
- **N.A. Non-Residential Construction** remains solid; **softness continues** in Europe
- **N.A. Heavy Duty Truck** build rates continue to **decline**; Europe **continues to improve**; **bright spots in Asia Pacific**
- **Strong Productivity** actions offset cost increases and revenue decline

1st Quarter ATOI Performance Bridge



2nd Quarter Year-over-Year Outlook

- **Improving N.A. Non-Residential Construction** with sustained levels in Europe
- **N.A. Heavy Duty Truck** build rates continue to **decline**, slightly offset by improvement in Europe
- **Brazil's** current economic environment continues to **negatively impact business results**
- Robust **productivity gains** throughout the business
- **ATOI** is expected to be **flat year-over-year** at current currencies

1. 1Q15 amounts have been revised to remove impact of metal price lag
See appendix for additional information and EBITDA reconciliation.

Alumina: Pricing Headwinds Continue to Impact Earnings

1Q16 Actual and 2Q16 Outlook – Alumina

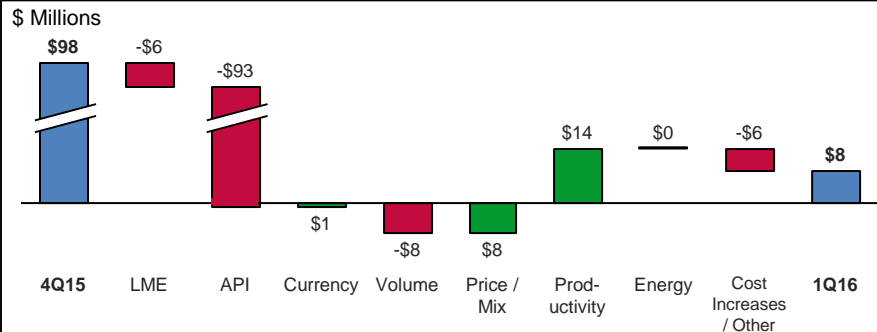
1st Quarter ATOI Results

	1Q 15	4Q 15	1Q 16
Production (kmt)	3,933	3,856	3,330
3 rd Party Shipments (kmt)	2,538	2,713	2,168
3 rd Party Revenue (\$ Millions)	887	732	545
3 rd Party Price (\$/MT)	344	267	249
ATOI (\$ Millions)	221	98	8

1st Quarter Business Highlights

- **API pricing down 19% sequentially, 40% year over year**
- Announced curtailments drive **production down ~530 KMT**
- Continued **productivity gains through strong cost control**
- **Saudi Arabia refinery** continues to ramp-up, now at 80% of name plate capacity

1st Quarter ATOI Performance Bridge



2nd Quarter Sequential Outlook

- Production expected to be flat sequentially
- ~85% of 3rd party shipments on API or spot pricing for 2016
- **API pricing follows 30-day lag; LME pricing follows 60-day lag**
- Continue **expanding 3rd party bauxite sales** and **benefit from accelerated productivity program**
- **ATOI to be up \$15M** excluding pricing and currency impacts

Primary Metals: Profitable Despite Difficult Pricing Environment

1Q16 Actual and 2Q16 Outlook – Primary Metals

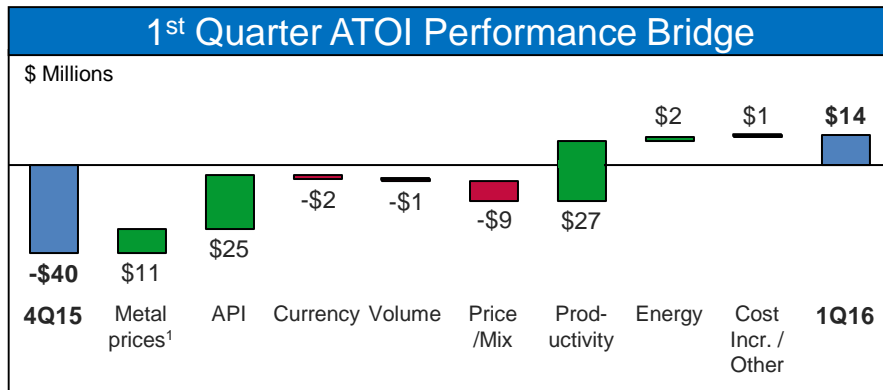
1st Quarter ATOI Results

	1Q 15	4Q 15	1Q 16
Production (kmt)	711	699	655
3 rd Party Shipments (kmt)	589	644	575
3 rd Party Revenue (\$ Millions)	1,572	1,236	1,123
3 rd Party Price (\$/MT)	2,420	1,799	1,793
ATOI (\$ Millions)	187	(40)	14

1st Quarter Business Highlights

- **Realized price flat** sequentially
- **Announcement and execution of Warrick closure**
- **Lower alumina, raw materials, and productivity** drive positive ATOI for the quarter
- **Energy sales continue to decline**, offset by seasonal low prices in Spain

1st Quarter ATOI Performance Bridge



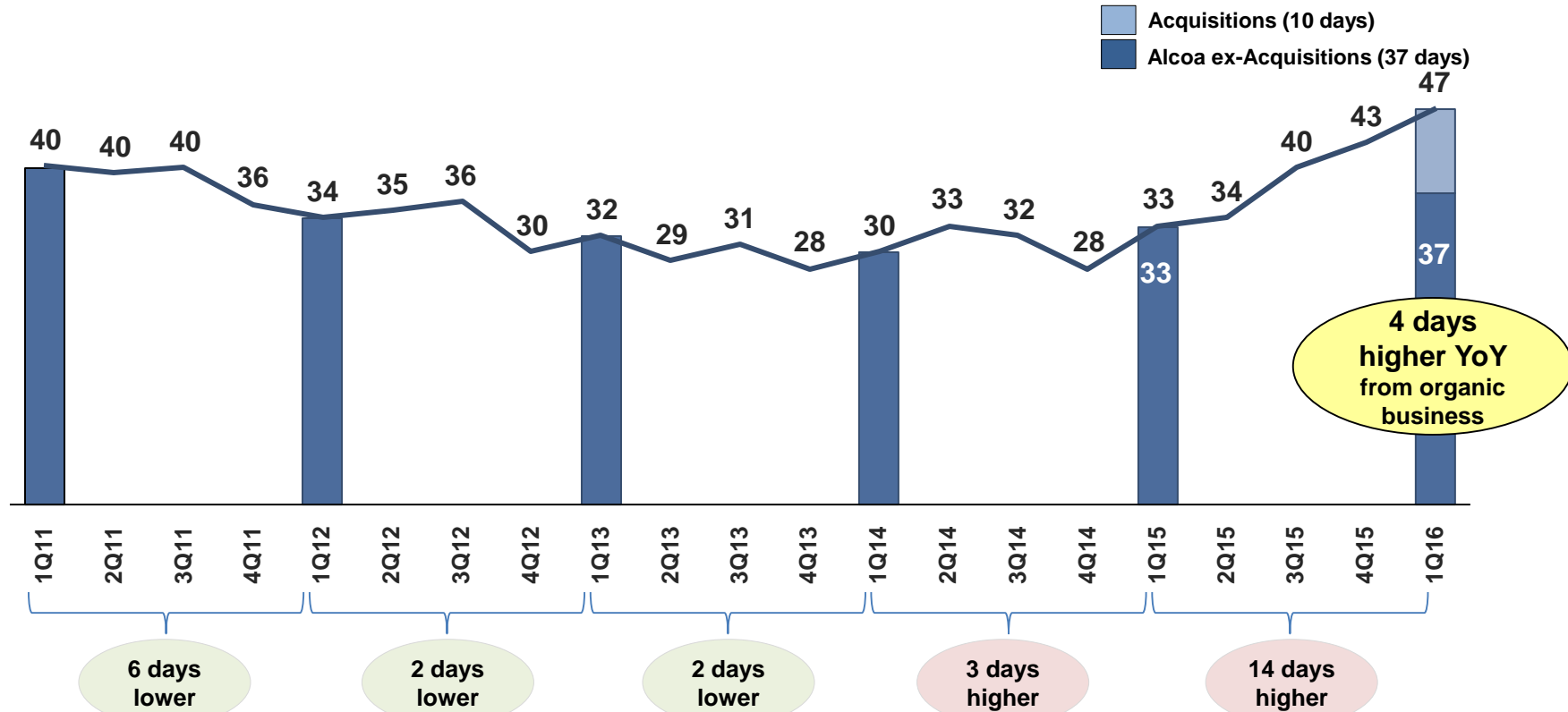
2nd Quarter Sequential Outlook

- Announced curtailments drive **production down ~50 KMT**
- **Pricing** to follow a **15-day lag** to LME
- **Lower prices** for energy sales in Brazil and U.S. hit ATOI by **\$18M**
- **Accelerated productivity program** and **raw material pricing** more than **offset energy headwinds**
- **ATOI to be up \$10M** excluding impact of pricing and currency

¹Metal Price = LME + Regional Premium; Regional Premium previously reported in Price/Mix category

Base Business DWC +4 days Year-over-Year, Acquisitions Add 10 days

Average Days Working Capital since First Quarter 2011



Seasonal Working Capital Increase Drives FCF to (\$681) Million

1Q15, 4Q15 and 1Q16 Cash Flow

(\$ Millions)	1Q15	4Q15	1Q16
Net Income (Loss) before Noncontrolling Interests	\$255	(\$765)	\$11
Depreciation, Depletion and Amortization	\$321	\$321	\$309
Change in Working Capital	(\$595)	\$571	(\$469)
Pension Expense in Excess of Contributions	\$37	\$13	\$13
Other Adjustments	(\$193)	\$725	(\$294)
Cash from Operations	(\$175)	\$865	(\$430)
Dividends to Shareholders	(\$54)	(\$74)	(\$57)
Change in Debt	\$24	(\$122)	-
Net (Distributions)/Contributions from Noncontrolling Interests	(\$29)	(\$32)	(\$50)
Other Financing Activities	\$33	(\$2)	-
Cash from Financing Activities	(\$26)	(\$230)	(\$107)
Capital Expenditures	(\$247)	(\$398)	(\$251)
Acquisitions/Divestitures/Asset Sales	(\$212)	-	\$222
Other Investing Activities	(\$6)	(\$59)	\$28
Cash from Investing Activities	(\$465)	(\$457)	(\$1)
Free Cash Flow	(\$422)	\$467	(\$681)
Cash on Hand	\$1,191	\$1,919	\$1,384

Over \$700 Million to be Generated by Announced Asset Sales

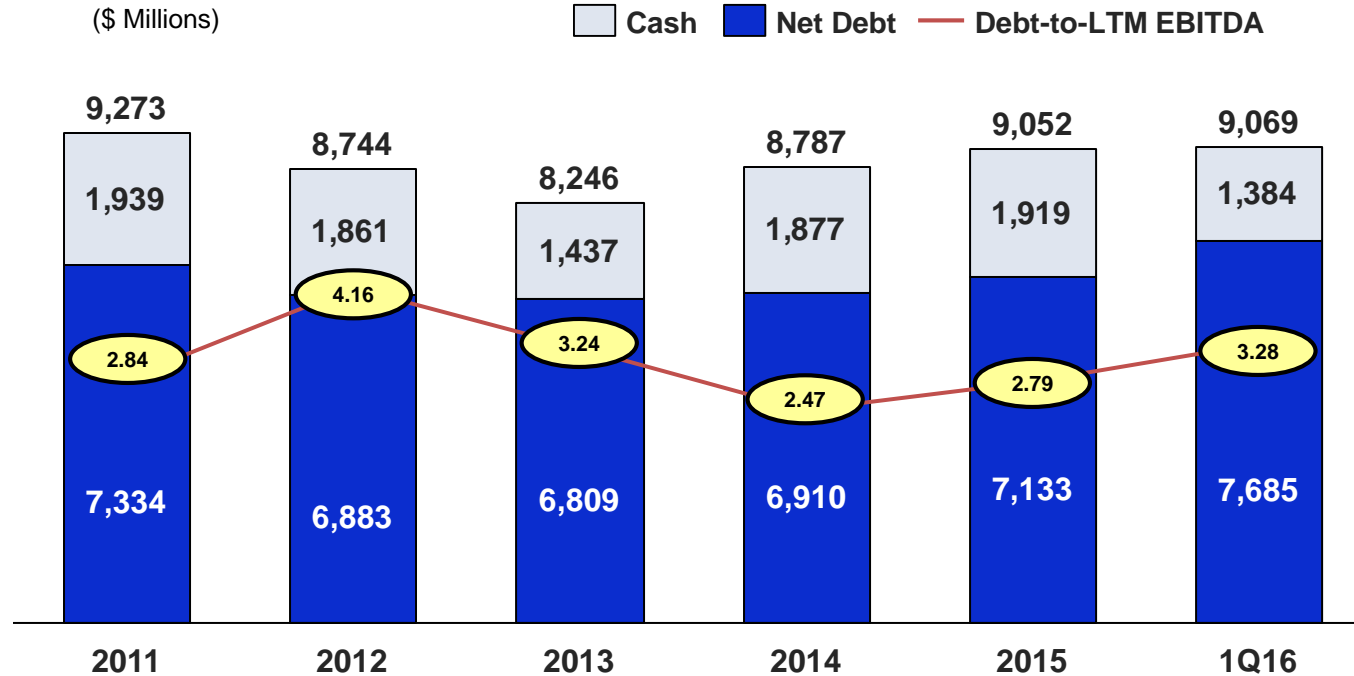
1Q16 Asset Sale Announcements

		Cash Proceeds	Closing
DBNG Pipeline	<ul style="list-style-type: none"> ▪ Sell all of Alcoa of Australia's¹ 20% minority interest in the Australia Dampier to Bunbury Natural Gas Pipeline ▪ Western Australia's principal gas transmission pipeline and is the only pipeline connecting the gas reserves in the north to Perth customers 	~\$150M	Q2 2016
Remmele	<ul style="list-style-type: none"> ▪ A \$70M² contract manufacturer of medical devices, including minimally invasive surgical tools, spinal, drug infusion and dental implants, vascular components, and urology instruments ▪ Acquired in 2015 as part of RTI transaction 	~\$100M	Q2 2016
Company Owned Life Insurance	<ul style="list-style-type: none"> ▪ Redemption of company-owned life insurance ▪ A portion sold in 1Q (\$234M), with a second portion in 2Q 	~\$500M	Q1 & Q2 2016
Total Cash Proceeds		~\$750M	

¹Alcoa of Australia is owned 60% by Alcoa Inc. and 40% by Alumina Limited. ²Represents full year 2015 Pro forma revenue

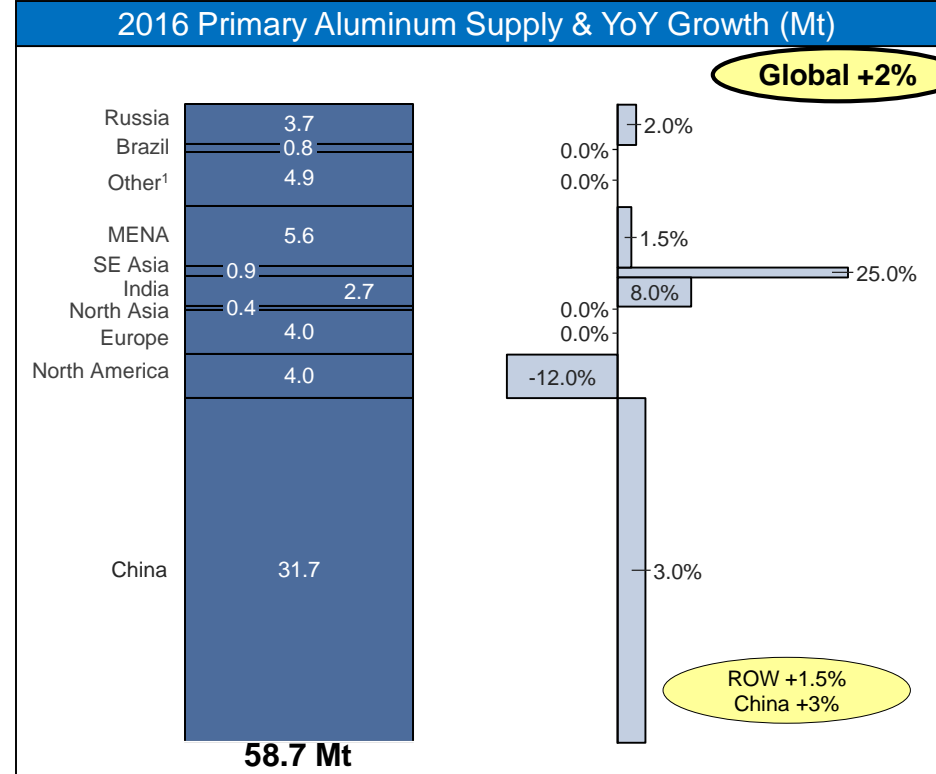
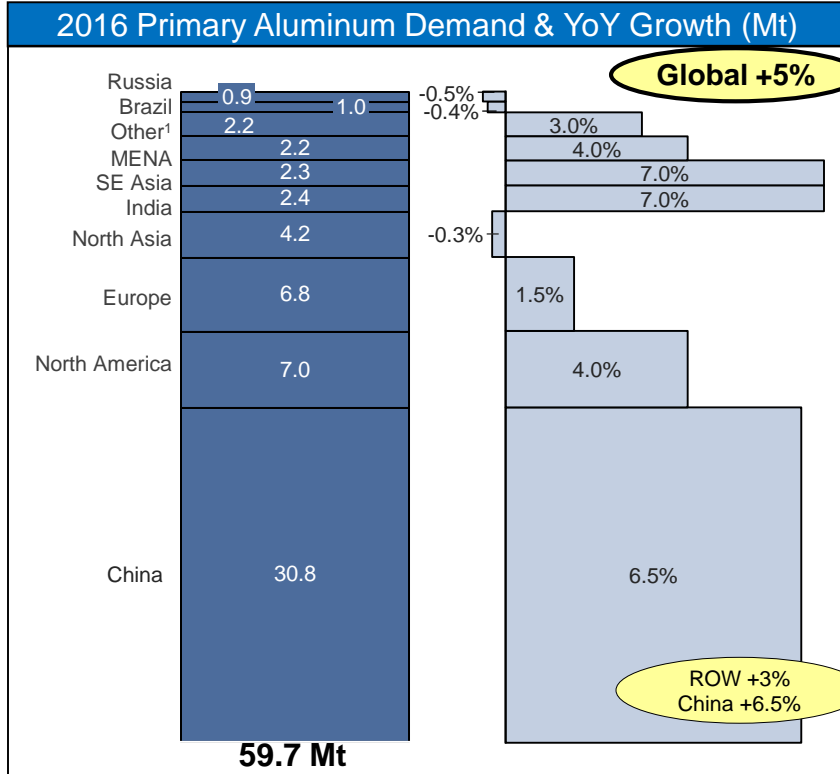
Cash on hand at \$1.4 Billion

Debt, Net Debt, and Debt-to-LTM EBITDA



2016 Aluminum Demand growth at 5% while supply only grows at 2%

Primary aluminum demand and supply by region



Source: Alcoa analysis, CRU, Wood Mackenzie, IAI, CNIA, NBS, Aladdiny; figures rounded;

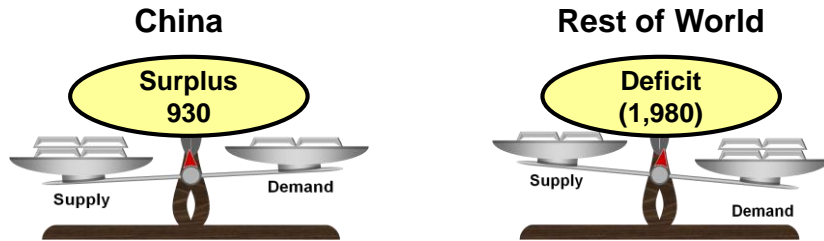
¹Other includes Africa, E. Europe, Latin America ex Brazil, Oceania, Other Asia

Aluminum Deficit Continues; Projected at 1.1Mmt

Aluminum fundamentals overview

Continue to see global deficit in 2016

2016E Aluminum Balance (kmt)



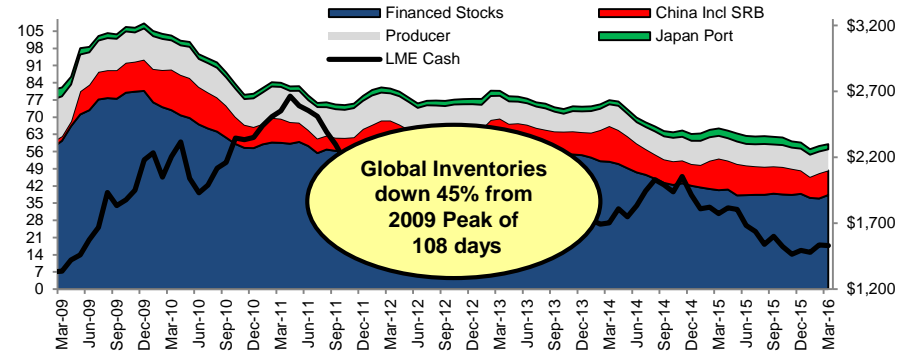
China

30,700	Prod. at Beginning Run Rate
3,400	Prod. to be Added/Restarted
(2,390)	Prod. to be Closed/Curtailed
31,710	Total Supply
(30,780)	Demand
930	Net Balance

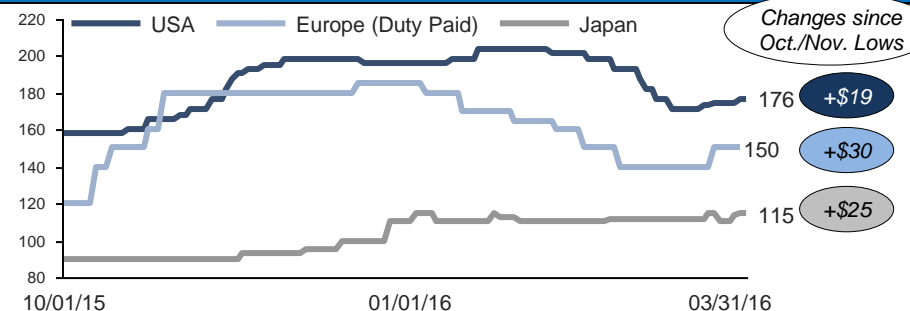
Rest of World

26,620	Prod. at Beginning Run Rate
760	Prod. to be Added/Restarted
(410)	Prod. to be Closed/Curtailed
26,970	Total Supply
(28,950)	Demand
(1,980)	Net Balance

Global Inventories at 59 days; -5 days YoY



Premiums have started to stabilize (\$/t)

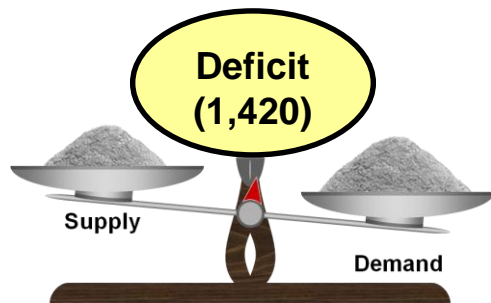


Alumina Deficit at 1.4Mmt; Refining Curtailments Support Price

Alumina fundamentals overview

Continue to see large deficit for 2016

2016E Alumina Balance (kmt)

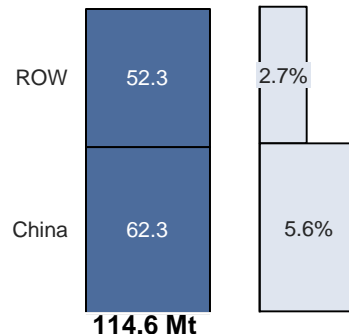


China Rest of World

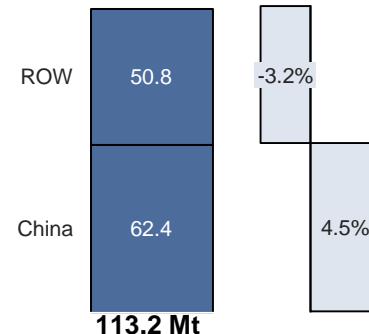
2016 Prod. at Beginning Run Rate	57,500	56,740
2016 Prod. to be Added/Restarted	4,370	1,410
2016 Prod. to be Closed/Curtailed	(3,790)	(3,020)
Imports/(Exports) – Full Year	<u>4,360</u>	<u>(4,360)</u>
Total Supply	62,440	50,770
Demand	<u>(62,300)</u>	<u>(52,330)</u>
Net Balance	140	(1,560)

Demand growth at 4% while supply only grows at 1% in 2016

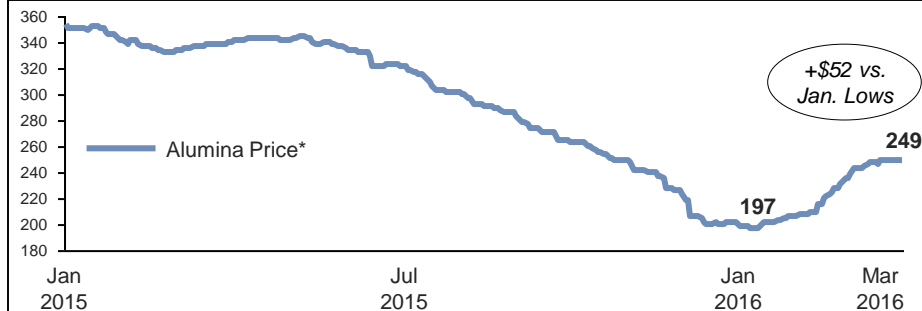
Demand & YoY Growth (Mt)



Supply & YoY Growth (Mt)



Price has started to recover (\$/t)





Advancing each generation.



Klaus Kleinfeld

Chairman and Chief Executive Officer

April 11, 2016

Aerospace Growth at Lower Pace; Continued Growth in Automotive

Alcoa End Markets: Current Assessment of 2016 vs. 2015

End Market

2016 Growth

Global and Regional Commentary

Aerospace



↑
6% to 8%
Global sales
growth

- **Market Transition** given unprecedented level of **New Model Introductions**
 - **Lower Orders for Legacy models + Careful Ramp-Up of new models**
due to simultaneous launch of new technologies (body + engine) and supply chain changes
 - **Large Commercial Aircraft Deliveries +9%**
- **Strong Commercial Jet Order Book** of ~14,600 planes: **>9 Years** Production at 2015 delivery rates; ~23,800 engines on firm order
- **Solid Airline Fundamentals¹:**
 - '16FC +6.9% Passenger ('15: +6.7%); +2.8% Cargo ('15: 1.7%);
 - Record Airline Profitability expected (\$36B);
 - Global trend in tact: +Middle Class AND +Urbanization
- **Cancellations** (2015 LCA) **Below 5-Year Average** and **<2%** of Gross Order Book

Automotive



↑
1% to 4%
Global
production
growth

- **Production Up: +7.4%YTD_{Feb'16}** (2.88M vehicles)
 - **Strong Sales: U.S. sales +3.1%YTD_{Mar'16}; Light Truck** penetration at **57.9%** of market
 - **Sustained demand: Vehicles 12+ years old** continue to grow and **will increase 15% by 2020²**
 - **Stable Inventory: 65 days** (industry target is 60-65 days)
 - **Average transaction price up 2%** (Mar'16 vs. Mar'15) driven by **continued strength in Light Truck**; ratio of incentives to transaction price relatively flat
- **E.U. ↑** **Rising Production: +1.9%YTD_{Feb'16}, West up +4.3%YTD** (89% share), **offsets East, down -14.0%YTD** (11% share)
 - **Strong Registrations: +10.1%YTD_{Feb'16}; Exports to increase 6.9% in 2016** (+1.9% in 2015)
- **China ↑** **Recovering Production: +3.9%YTD_{Feb'16} and -1.2%YoY** (Feb'16 vs. Feb'15)
 - **Sales +4.1%YTD_{Feb'15} and -1.3%YoY** (Feb'16 vs. Feb'15) driven by tax incentives and light truck demand
 - **Growth propelled by increasing middle class, exports, and evolving emissions policies**

HDT – N.A.: Further Decline, Strength in Europe; Packaging Stable

Alcoa End Markets: Current Assessment of 2016 vs. 2015

End Market

2016 Growth

Global and Regional Commentary

Heavy Duty Truck and Trailer



↓
-4% to 0%
Global
production
decline

N.A.

-23% to -27% ↓

- **Declining Production: Down 19.0% YTD** Feb'16 at **40.4k vs. 49.9k trucks**
- **Weak Freight Growth:** Freight tonmiles **up 0.2% YTD** Feb '16
- **Weak Orders: Down 42.0% YoY** (Feb'16 vs. Feb'15)
- **Climbing Inventory: Up 15.6% YoY** (Feb'16 vs. Feb'15) at 66.8k [10-year average 47.4k]
- **Falling Orderbook: At 131.0k, down 30.9% YoY** (Feb'16 vs. Feb'15), and **down 1.9% month-over-month**. This still remains above its 10-year **historical avg. of 101k**

E.U.

1% to 5% ↑



- **Strength in WEU: Production up 20.0% YoY** (Feb'16 vs. Feb'15) and **up 20.9% YTD** Feb '16;
 - Registrations **up 21.8% YTD** Feb '16, despite Orders **down 2.7% YTD** Feb '16
 - **Decline in EEU: Production down 8.6% YTD** (Feb '16) from Russia and Turkey weakness

China

1% to 4% ↑



- **Strong Sales: Up 26.8% YoY** (Feb'16 vs. Feb'15), and **up 6.3% YTD** Feb '16
- **Production Turning: Down 1.3% YoY** (Feb'16 vs. Feb'15), and **down 7.3% YTD** Feb '16

Packaging



↑
1% to 3%
Global sales
growth

N.A.

-1% to 0% ↓



- **Demand decline:** Weakness (-1% to -2%) in **Carbonated Soft Drinks (CSD)**
- **Moderate growth in Beer Segment** (+1% to +2%) to partially offset CSD

E.U.

1% to 2% ↑



- **Growth** led by modest growth (1% to 2%) in **Western Europe**, partially offset by downward pressure in **Eastern Europe** (primarily declines in Russia)

China

5% to 8% ↑



- **Growth** led by aluminum can penetration from glass in beer segment

Commercial B&C and Global Airfoil Market Continue to Grow

Alcoa End Markets: Current Assessment of 2016 vs. 2015

End Market


2016 Growth


Global and Regional Commentary

Building and Construction




4% to 6%
 Global sales growth

N.A.
 4% to 6%
 

E.U.
 0% to -2%
 

China
 3% to 5%
 


- **Non-Residential Contracts Awarded: +4.7%** in Feb. (mean of 12-month rolling average)
- **Architectural Billings Index Relatively Steady:** In 2015, it averaged 51.6, with only Aug.'15 registering below 50 at 48.8. In Feb.'16 it was 50.3, up from 49.6 in Jan.'16
- **Housing Starts up +10.6% in 2015** (vs. 2014); starts grew +5.2% in Feb'16 (vs. Jan 16)

- **Flat to slight decline** as E.U. economies continue to stabilize, outlook varies by country

- **Continued moderation of growth** in 2016 from 5% in 2015 and 8% in 2014

Industrial Gas Turbines




2% to 4%
 Global airfoil market growth

- Market moving towards **higher value-add product** as customers develop **new, high efficiency** turbines with **advanced technology**
- New heavy duty **gas turbine units ordered +12%** in 2015 (globally)
- **U.S. (60 Hz) gas-fired generation +18.5% in 2015** driving strong demand for **spares** and **component upgrades** on existing turbines
- 2015 OECD electricity demand up 0.7% y/y but still 0.6% below 2008 levels

Future Arconic: GRP and TCS on 3-Year Target; EPS New 2016 Goal

1Q16 Arconic Performance and 2016 Goals

Record Value-Add
Q1 EBITDA Margin
of 16.4%

GRP

1Q 2016 Highlights

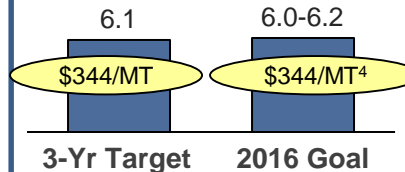
- Revenue \$1,397M; auto shipments up 38%
- **Strong productivity; \$374¹ EBITDA/MT**
- **Portfolio:** Strength in auto **Improving Mix**

2Q 2016 Outlook

- **ATOI up 5-7% YoY**
excluding \$15M impact to secure alternative metal supply at Warrick

3rd Party Revenue²(\$B)
EBITDA (% , \$/MT)

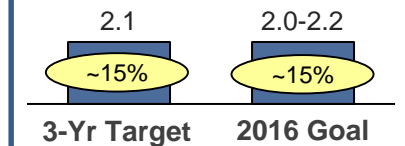
2016 Goal



TCS

- Revenue at \$429M
- Strong productivity;
- **Record 1st quarter EBITDA Margin 14.9%**
- **Portfolio:** BCS improving; LA extrusions weak

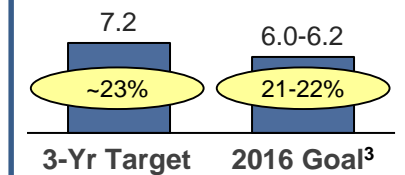
- **ATOI flat YoY**



EPS

- **Record 1st quarter** revenue \$1,449M
- Strong productivity; **EBITDA Margin 21.0%**
- **Portfolio:** ATEP ahead; FR progressing

- **ATOI up 5-10% YoY**

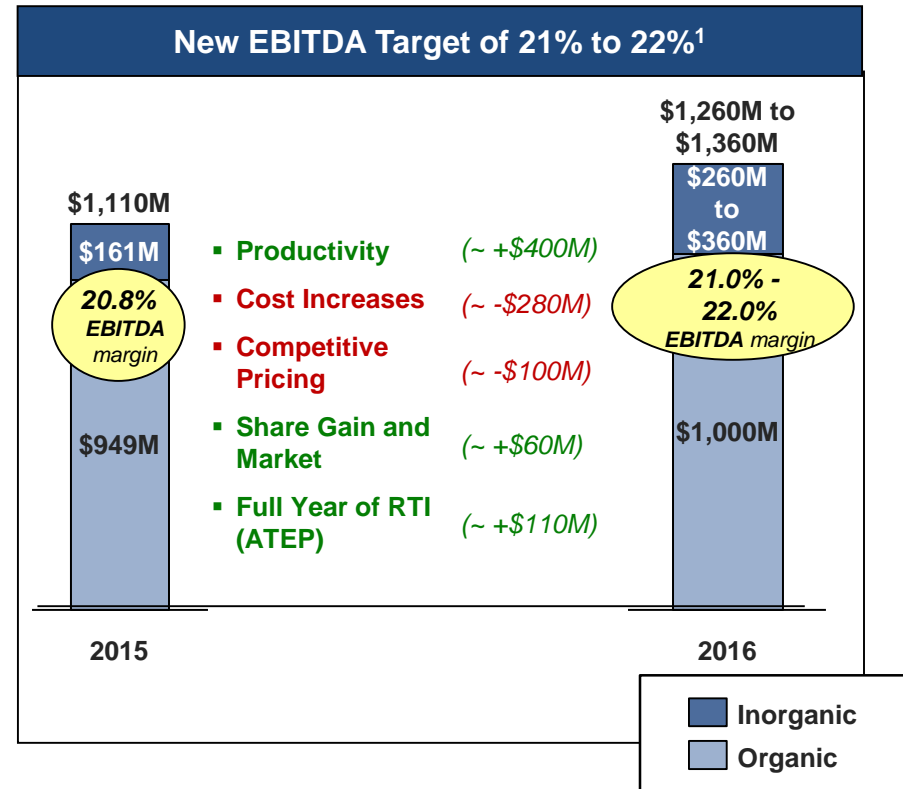
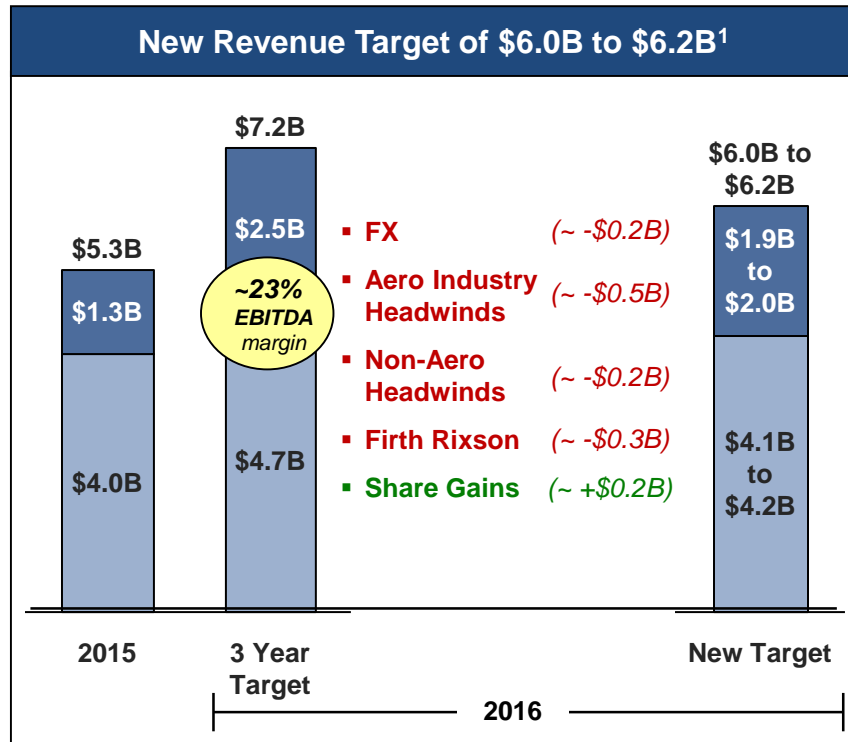


1) EBITDA/MT includes impact from Warrick cold metal program. Without that impact, EBITDA/MT is \$390 2) 3-Yr Target Revenue adjusted for FX/LME: GRP \$(0.9)M; TCS \$(0.2)M 3) Does not include impact of announced sale of Remmele Medical Business 4) Excludes Warrick CMP impact.

See appendix for EBITDA reconciliations

EPS 2016 Goal: \$6.0-6.2B Revenue, 21%-22% EBITDA Margin

2016 EPS Revenue (\$B) and EBITDA (%) Overview



1. Does not include impact of announced sale of Remmele Medical Business
See appendix for EBITDA reconciliations

Firth Rixson: Improvement Underway; 2016 EBITDA Margin 14%-16%

2015-2016 EPS Firth Rixson Revenue (\$B) and EBITDA (\$M,%) Overview

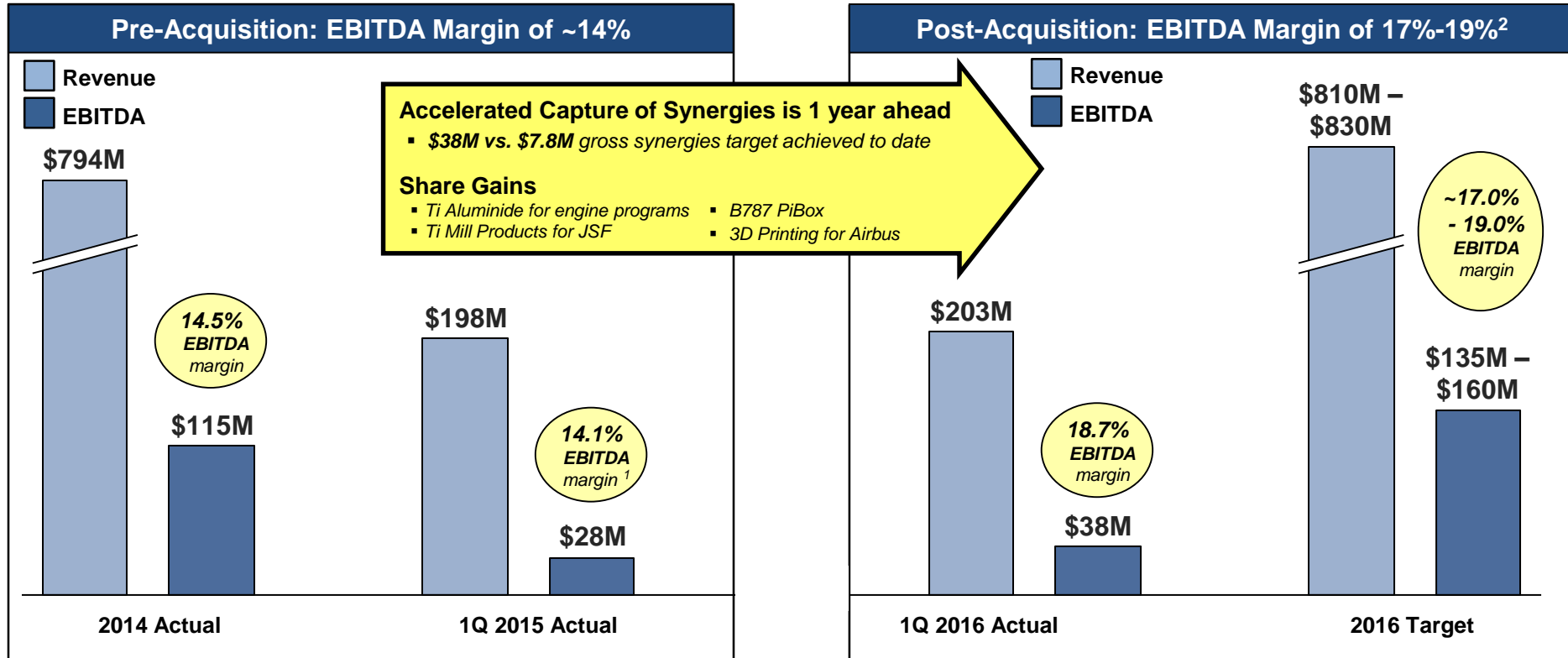
Q1 '16 Actuals: \$237M Revenue; 14.3% EBITDA
Q1 '15 Actuals: \$232M Revenue; 11.6% EBITDA

Revenue
 EBITDA



ATEP Ahead of Integration Plan, Delivering 17-19% EBITDA Margin in 2016

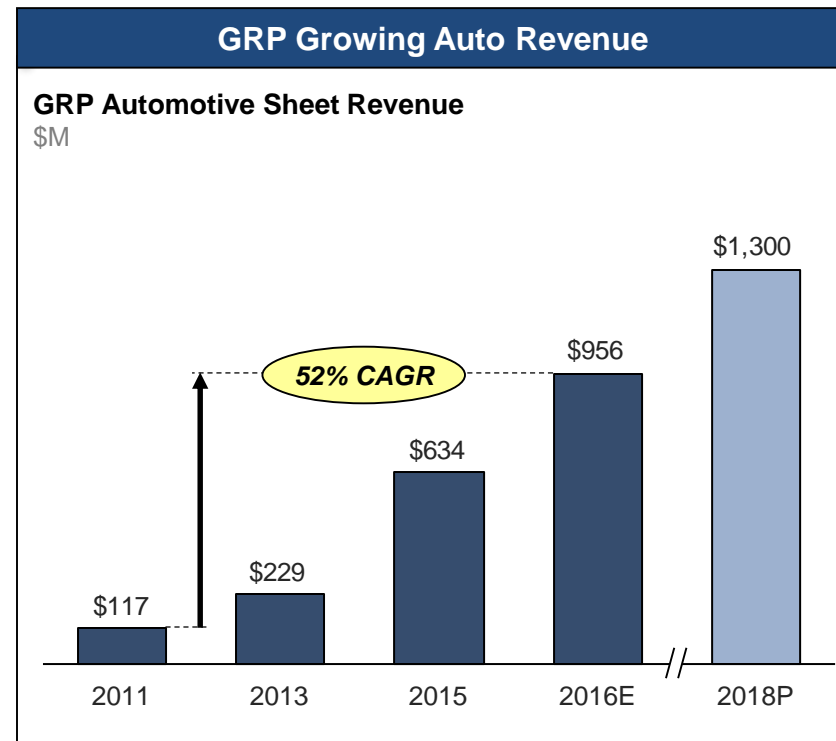
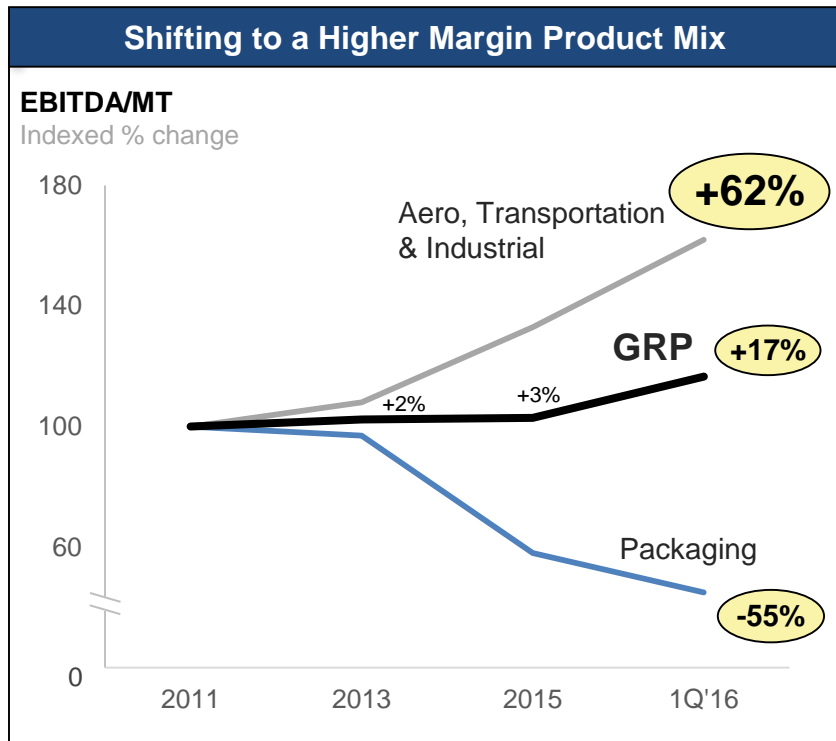
2014-2016 EPS ATEP Revenue (\$M) and EBITDA (\$M,%) Overview



1) ATEP (RTI) pre-acquisition results exclude deal-related costs 2) Does not include impact of announced sale of Remmele Medical Business; Post the sale ATEP EBITDA margin target unchanged; revenue target range reduction dependent on timing (annual sales of \$70 million). See appendix for EBITDA reconciliations

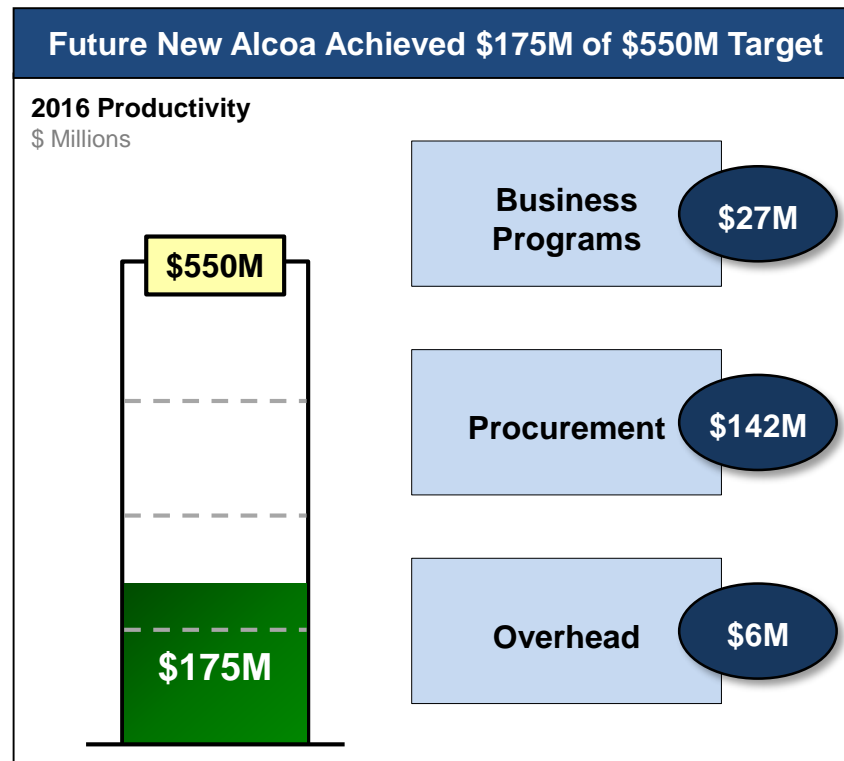
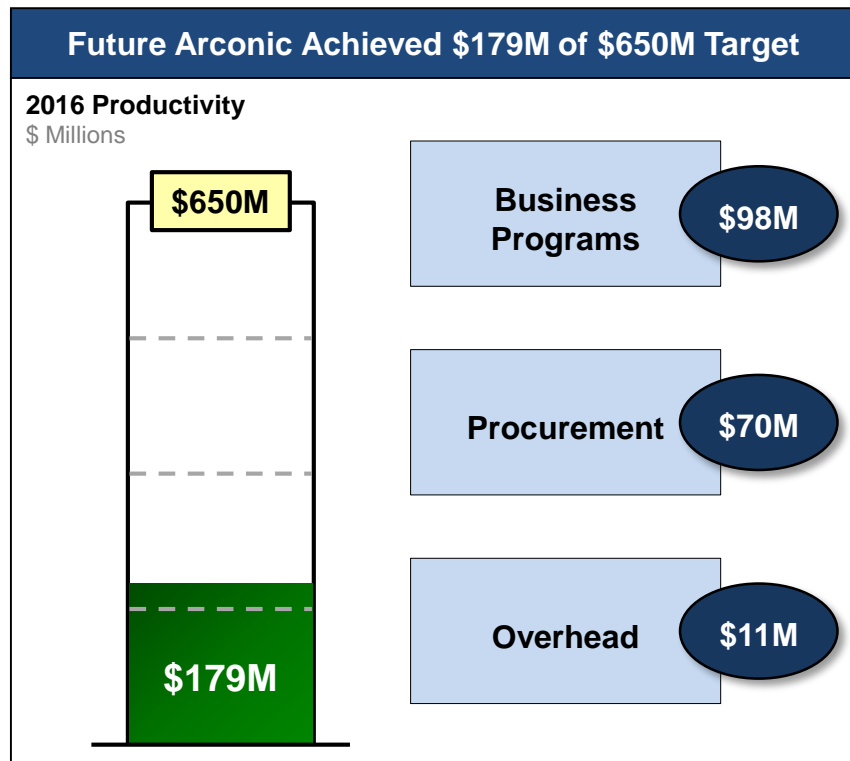
GRP Shifting to Higher Margin Led by Automotive Growth

GRP Profitability and Auto Growth



Productivity Programs Achieved \$364M1 of \$1,200M Target through Q1'16

Alcoa Gross Productivity Program Q12016



1) Productivity: Future Arconic = \$179M; Future New Alcoa = \$175M; Corporate = \$10M

New Alcoa: Driving Down Cost Curve in 2016, Meeting 3-Year Targets

1Q16 New Alcoa Highlights and 2016 Targets

Alumina

1Q 2016 Highlights

Reshaping Portfolio:

- Curtailed **1.2 mmt at Pt. Comfort**
- **Saudi Arabia refinery at 80%** of capacity
- First full quarter with **Suralco curtailed**

Lowering costs:

- **\$68m gross productivity**
- Cash **cost per ton declined \$15/ton**, 7% sequentially

2Q 2016 Outlook

- **ATOI up \$15M** from Q1 excluding pricing and currency impacts

Aluminum

Reshaping portfolio:

- **Warrick smelter closed** March 24
- First full quarter with **Wenatchee curtailed**
- Saudi Arabia smelter **Q1 record low cost/ton**

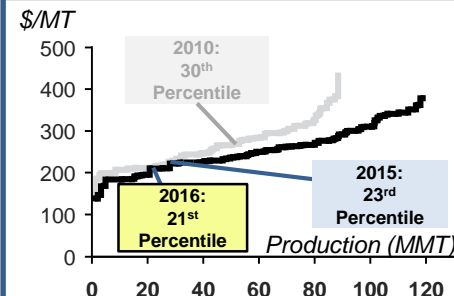
Lowering costs:

- **\$107m gross productivity**
- Cash **cost per ton declined \$145/ton**, 10% sequentially

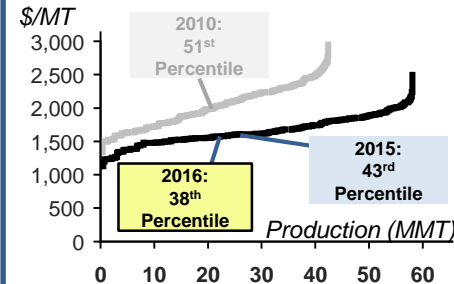
- **ATOI up \$10M** from Q1 excluding pricing and currency impacts

2016 Targets

Alumina: 21st Percentile



Aluminum: 38th Percentile



Executing Separation – On Course for Second Half of 2016

Separation Approximate Timeline and Path to Completion

4Q 2015

- Launched the **Separation Program Office**
- Announced the **Executive Management Teams**
- Confirmed **U.S. Domicile** for Both Companies
- Launched New Business **Improvement Programs** for 2016
 - Value-Add to Deliver \$650M
 - Upstream to Deliver \$600M
 - Above Includes Overhead Reductions Across Alcoa (\$100M¹ in 2016, \$225M over two years)

1st Half 2016

- Launched **New Value-Add Name and Brand** and **Refreshed Alcoa Brand**
- Separate Supplier/Partner Contracts**
- Form 10 Filing** - e.g.,
 - 3-Year Carve-Out and 1-Year Pro-Forma Financials
 - Form of Separation and Legal Structure
 - Capital Structure
 - Allocation of Assets and Liabilities
 - Governance Structure

2nd Half 2016

- Form 10** Effectiveness and Final Board **Approval**
- Complete **Separation of IT** Systems and Infrastructure
- Complete **Financing**
- Begin Trading** as Two Companies

1) \$50M of \$100M to be realized in 2016 comes from Value-Add, remaining \$50M from Upstream.

Successfully Launched Two Strong Brands Ahead of Separation

Arconic and New Alcoa branding



ARCONIC

Innovation, engineered.



Alcoa

On Track to Separate into Two Strong Companies

Pulling All Upstream Levers to Improve Profitability

Arconic Geared for Profitable Growth; Significant Aero, Auto Traction

Robust Business Improvement Programs to Strengthen Both Portfolios

On Track for Completing Separation 2nd Half of 2016

Matthew Garth

Vice President, Investor Relations and FP&A

Alcoa

390 Park Avenue

New York, NY 10022-4608

Telephone: (212) 836-2674

Email: matthew.garth@alcoa.com

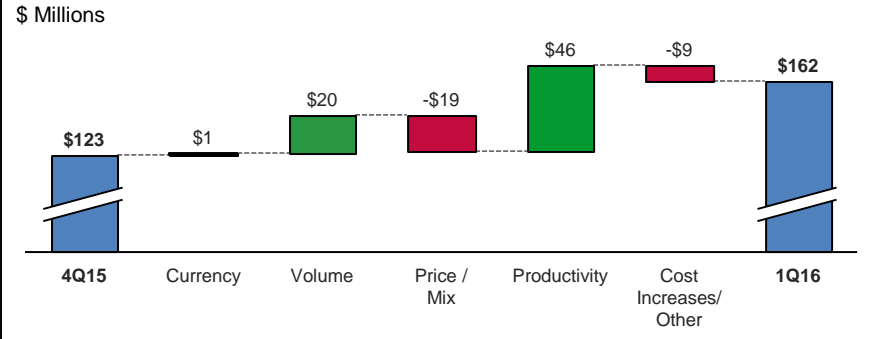
www.alcoa.com

Advancing each generation.

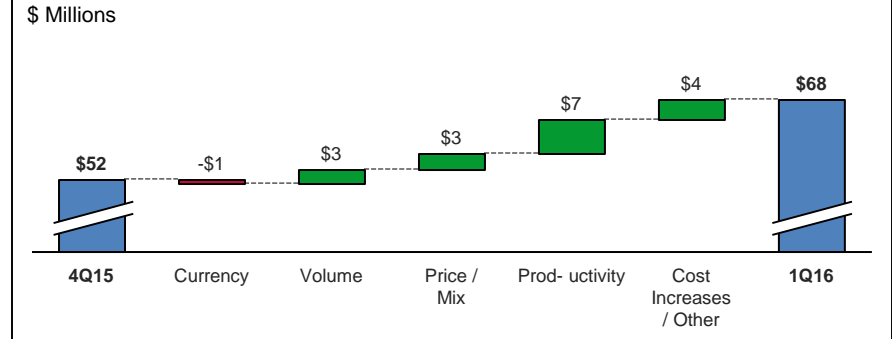


Value Add Segment Bridges – 1Q 2016

EPS Sequential Quarter Bridge



GRP Sequential Quarter Bridge

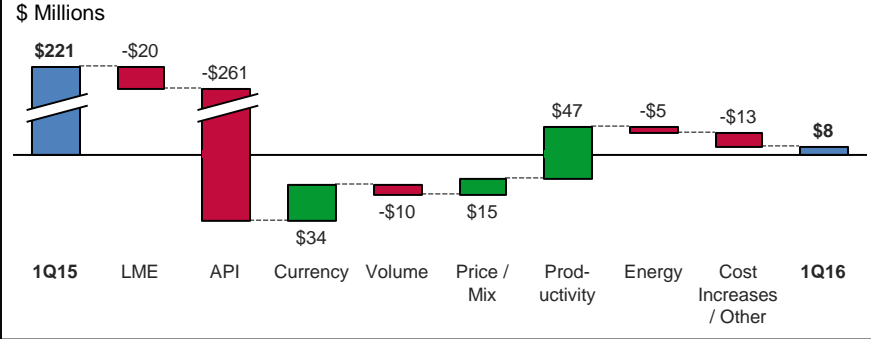


TCS Sequential Quarter Bridge

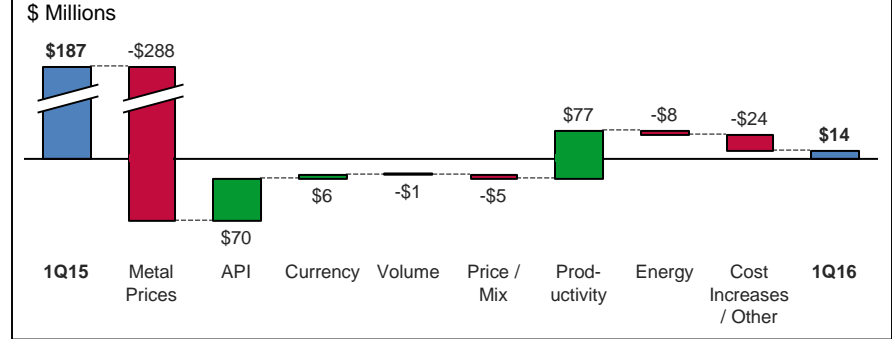


Upstream Segment Bridges – 1Q 2016

Alumina Year-over-Year Bridge

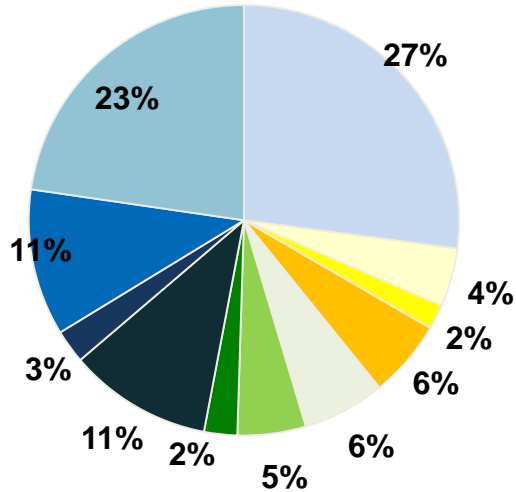


Primary Metals Year-over-Year Bridge



Revenue Change by Market - 1Q 2016

1Q16 Third-Party Revenue



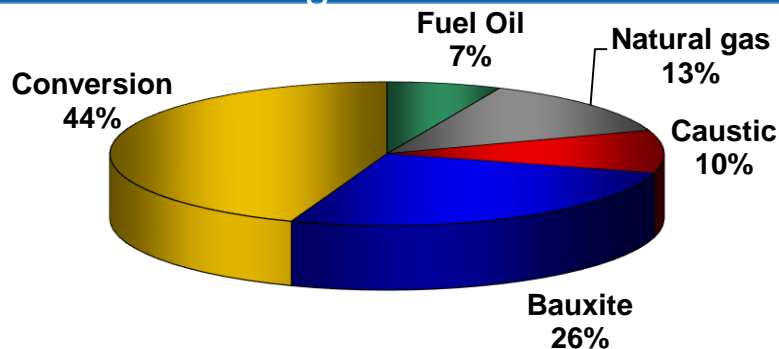
Sequential Change

Year-Over-Year Change

Aerospace	2%	8%
Automotive	25%	10%
Brazing	7%	(4%)
B&C	0%	(3%)
Comm. Transport	(14%)	(21%)
Industrial Products	0%	(16%)
IGT	27%	52%
Packaging	(10%)	(18%)
Distribution/Other	7%	13%
Alumina	(26%)	(39%)
Primary Metals	(9%)	(29%)

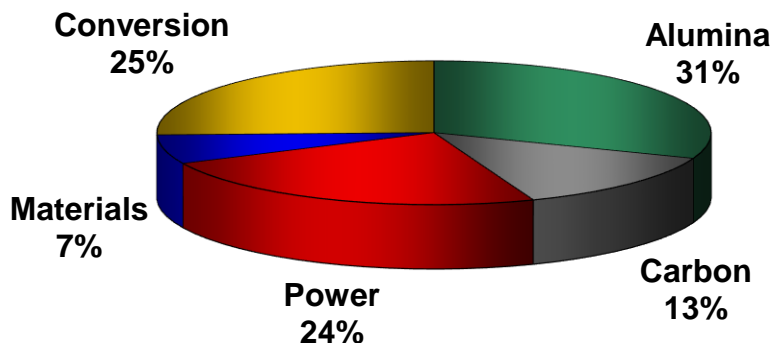
Composition of Upstream Production Costs

Refining Cost Structure



Input Cost	Inventory flow	Pricing convention	Annual ATOI Sensitivity
Fuel oil	1 – 2 months	Prior month	\$2m per \$1/bbl
Natural gas ¹	N/A	N/A	N/A
Caustic soda	3 - 6 months	Spot & semi-annual	\$6m per \$10/DMT

Smelting Cost Structure



Input Cost	Inventory flow	Pricing convention	Annual ATOI Sensitivity
Coke	1 - 2 months	Spot, quarterly & semi-annual	\$5m per \$10/MT
Pitch	1 - 2 months	Spot, quarterly & semi-annual	\$1m per \$10/MT

¹Natural gas information related to Point Comfort will no longer apply as we are curtailing the plant. Australia is priced on a rolling 16 quarter average

Alcoa Upstream Capacity Closed, Sold, and Idled

Smelting Capacity

Closed/sold since December 2007

Facility	Year	kmt
Baie Comeau	2008	53
Eastalco	2010	195
Badin	2010	60
Tennessee	2011	215
Rockdale	2011	76
Baie Comeau	2013	105
Fusina	2013	44
Massena East	2013	41
Massena East	2014	84
Point Henry	2014	190
Portovesme	2014	150
Mt. Holly (sale)	2014	115
Pocos	2015	96
Warrick	2016	269
Total		1,693

Idled

Facility	Year	kmt
Portland	2008	30
Rockdale	2008	191
Aviles	2012	32
La Coruna	2012	24
Sao Luis	2013	97
Sao Luis	2014	97
Sao Luis	2015	74
Wenatchee	2015	184
Total		729

Refining Capacity

Closed/sold since December 2007

Facility	Year	kmt
Jamalco (sale)	2014	779
Total		779

Idled

Facility	Year	kmt
Point Comfort	2008	340
Suriname	2009	870
Suriname	2015	1,337
Point Comfort	2016	1,508
Total		4,055

Reconciliation of ATOI to Consolidated Net Income (Loss) Attributable to Alcoa

(in millions)	1Q15	2Q15	3Q15	4Q15	2015	1Q16
Total segment ATOI	\$656	\$567	\$410	\$273	\$1,906	\$291
Unallocated amounts (net of tax):						
Impact of LIFO	7	36	50	43	136	4
Metal price lag	(23)	(39)	(48)	(23)	(133)	1
Interest expense	(80)	(80)	(80)	(84)	(324)	(83)
Noncontrolling interests	(60)	(67)	(62)	64	(125)	5
Corporate expense	(62)	(65)	(72)	(67)	(266)	(55)
Impairment of goodwill	–	–	–	(25)	(25)	–
Restructuring and other charges	(161)	(159)	(48)	(575)	(943)	(61)
Other	(82)	(53)	(106)	(307)	(548)	(86)
Consolidated net income (loss) attributable to Alcoa	\$195	\$140	\$44	\$(701)	\$(322)	\$16

Reconciliation of ATOI to Consolidated Net Income (Loss) Attributable to Alcoa⁽¹⁾ – Supplemental View

(in millions)	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16
Total segment ATOI ⁽²⁾	\$320	\$408	\$581	\$659	\$1,968	\$656	\$567	\$410	\$273	\$1,906	\$291
Unallocated amounts (net of tax):											
Impact of LIFO	(7)	(8)	(18)	(21)	(54)	7	36	50	43	136	4
Metal price lag ⁽²⁾	7	11	38	22	78	(23)	(39)	(48)	(23)	(133)	1
Interest expense	(78)	(69)	(72)	(80)	(299)	(80)	(80)	(80)	(84)	(324)	(83)
Noncontrolling interests	(20)	(13)	(29)	(72)	(134)	(95)	(87)	(92)	(25)	(299)	3
Corporate expense	(66)	(58)	(68)	(60)	(252)	(56)	(60)	(55)	(55)	(226)	(38)
Other	(58)	(55)	(62)	(16)	(191)	(46)	(87)	(76)	(64)	(273)	(70)
Income excluding special items	98	216	370	432	1,116	363	250	109	65	787	108
Special items ⁽³⁾	(276)	(78)	(221)	(273)	(848)	(168)	(110)	(65)	(766)	(1,109)	(92)
Consolidated net (loss) income attributable to Alcoa	\$(178)	\$138	\$149	\$159	\$268	\$195	\$140	\$44	\$(701)	\$(322)	\$16

NOTES FOR CORPORATE AMOUNTS:

LIFO and Metal price lag – these items tend to offset each other over time as the same underlying market conditions typically drive both amounts.

Noncontrolling interests – primarily represents Alumina Limited's 40% share of the operating results of the Alcoa World Alumina and Chemicals joint venture, which principally comprises Alcoa's Alumina segment.

Corporate expense – represents general and administrative expenses attributable to Alcoa's corporate and business support locations, as well as costs associated with Alcoa's corporate research and development center.

Other – includes all other income and expenses not included in the segments, primarily: postretirement benefits and environmental remediation costs associated with certain closed or divested businesses; various corporate eliminations of inter-segment transactions; certain corporate foreign currency gains and losses; and the impact of the difference between the income tax rates applicable to the segments and the consolidated effective tax rate of the Company.

⁽¹⁾ In the third quarter of 2015, management approved a realignment of Alcoa's Engineered Products and Solutions segment due to the expansion of this part of Alcoa's business portfolio through both organic and inorganic growth. A portion of this realignment consisted of moving the Latin American extrusions business from Corporate into a new Transportation and Construction Solutions segment (see the Reconciliation of Transportation and Construction Solutions Adjusted EBITDA for additional information). Segment information for all prior periods presented was revised to reflect the new segment structure.

⁽²⁾ Effective in the second quarter of 2015, management removed the impact of metal price lag from the results of the Global Rolled Products and Engineered Products and Solutions (now Engineered Products and Solutions and Transportation and Construction Solutions – see footnote 1 above) segments in order to enhance the visibility of the underlying operating performance of these businesses. Metal price lag describes the timing difference created when the average price of metal sold differs from the average cost of the metal when purchased by the respective segment. The impact of metal price lag is now reported as a separate line item in Alcoa's reconciliation of total segment ATOI to consolidated net (loss) income attributable to Alcoa. As a result, this change does not impact the consolidated results of Alcoa. Segment information for all prior periods presented was updated to reflect this change.

⁽³⁾ Special items are defined as restructuring and other charges, discrete tax items, and other special items. See the Reconciliation of Adjusted Income for additional information.

Reconciliation of Adjusted Income (Loss)

(in millions, except per-share amounts)	Income (Loss)			Diluted EPS ⁽³⁾		
	Quarter ended			Quarter ended		
	March 31, 2015	December 31, 2015	March 31, 2016	March 31, 2015	December 31, 2015	March 31, 2016
Net income (loss) attributable to Alcoa	\$195	\$(701)	\$16	\$0.14	\$(0.55)	\$0.00
Restructuring and other charges	158	507	61			
Discrete tax items ⁽¹⁾	–	187	2			
Other special items ⁽²⁾	10	72	29			
Net income attributable to Alcoa – as adjusted	\$363	\$65	\$108	0.28	0.04	0.07

Net income (loss) attributable to Alcoa – as adjusted is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management reviews the operating results of Alcoa excluding the impacts of restructuring and other charges, discrete tax items, and other special items (collectively, “special items”). There can be no assurances that additional special items will not occur in future periods. To compensate for this limitation, management believes that it is appropriate to consider both Net income (loss) attributable to Alcoa determined under GAAP as well as Net income attributable to Alcoa – as adjusted.

⁽¹⁾ Discrete tax items include the following:

- for the quarter ended March 31, 2016, a net charge for a number of small items; and
- for the quarter ended December 31, 2015, a charge for valuation allowances related to certain U.S. and Iceland deferred tax assets (\$190) and a net benefit for a small number of items (\$3).

⁽²⁾ Other special items include the following:

- for the quarter ended March 31, 2016, costs associated with the planned separation of Alcoa (\$17), an unfavorable tax impact resulting from the difference between Alcoa’s consolidated estimated annual effective tax rate and the statutory rates applicable to special items (\$8), an unfavorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$2), and a write-down on inventory related to the permanent closure of the Warrick smelter (\$2);
- for the quarter ended December 31, 2015, a write-down of inventory related to the permanent closure or temporary curtailment of various facilities in Suriname and the United States (\$28), an impairment of goodwill related to the soft alloy extrusion business in Brazil (\$25), costs associated with the planned separation of Alcoa (\$12), a net unfavorable change in certain mark-to-market energy derivative contracts (\$5), and an unfavorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$2); and
- for the quarter ended March 31, 2015, an unfavorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$35), a favorable tax impact resulting from the difference between Alcoa’s consolidated estimated annual effective tax rate and the statutory rates applicable to special items (\$31), costs associated with acquisitions of aerospace businesses (\$7), and a net favorable change in certain mark-to-market energy derivative contracts (\$1).

⁽³⁾ The average number of shares applicable to diluted EPS for Net income (loss) attributable to Alcoa common shareholders excludes certain share equivalents as their effect was anti-dilutive. However, certain of these share equivalents may become dilutive in the EPS calculation applicable to Net income attributable to Alcoa common shareholders – as adjusted due to a larger and/or positive numerator. Specifically:

- for the quarter ended March 31, 2016, share equivalents associated with outstanding employee stock options and awards were dilutive based on Net income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,324,558,308;
- for the quarter ended December 31, 2015, share equivalents associated with outstanding employee stock options and awards were dilutive based on Net income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,324,378,133; and
- for the quarter ended March 30, 2015, share equivalents associated with mandatory convertible preferred were diluted based on Net Income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,315,558,890. Additionally, the subtraction of preferred stock dividends declared from the numerator (see footnote 1 to the Statement of Consolidated Operations) needs to be reversed since the related mandatory convertible preferred stock was dilutive in the EPS calculation for Net income attributable to Alcoa – as adjusted.

Reconciliation of Alcoa Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
Net income (loss) attributable to Alcoa	\$1,233	\$2,248	\$2,564	\$(74)	\$(1,151)	\$254	\$611	\$191	\$(2,285)	\$268	\$(322)	\$195	\$(701)	\$16
Add:														
Net income (loss) attributable to noncontrolling interests	259	436	365	221	61	138	194	(29)	41	(91)	125	60	(64)	(5)
Cumulative effect of accounting changes	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Loss (income) from discontinued operations	50	(22)	250	303	166	8	3	–	–	–	–	–	–	–
Provision (benefit) for income taxes	464	853	1,623	342	(574)	148	255	162	428	320	445	226	44	30
Other (income) expenses, net	(478)	(236)	(1,920)	(59)	(161)	5	(87)	(341)	(25)	47	2	(12)	29	34
Interest expense	339	384	401	407	470	494	524	490	453	473	498	122	129	127
Restructuring and other charges	266	507	268	939	237	207	281	172	782	1,168	1,195	177	735	93
Impairment of goodwill	–	–	–	–	–	–	–	–	1,731	–	25	–	25	–
Provision for depreciation, depletion, and amortization	1,227	1,252	1,244	1,234	1,311	1,450	1,479	1,460	1,421	1,371	1,280	321	322	308
Adjusted EBITDA	\$3,362	\$5,422	\$4,795	\$3,313	\$359	\$2,704	\$3,260	\$2,105	\$2,546	\$3,556	\$3,248	\$1,089	\$519	\$603
Sales	\$24,149	\$28,950	\$29,280	\$26,901	\$18,439	\$21,013	\$24,951	\$23,700	\$23,032	\$23,906	\$22,534	\$5,819	\$5,245	\$4,947
Adjusted EBITDA Margin	13.9%	18.7%	16.4%	12.3%	1.9%	12.9%	13.1%	8.9%	11.1%	14.9%	14.4%	18.7%	9.9%	12.2%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Alumina Adjusted EBITDA

(\$ in millions, except per metric ton amounts)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$682	\$1,050	\$956	\$727	\$112	\$301	\$607	\$90	\$259	\$370	\$746	\$221	\$98	\$8
Add:														
Depreciation, depletion, and amortization	172	192	267	268	292	406	444	455	426	387	296	80	68	63
Equity loss (income)	–	2	(1)	(7)	(8)	(10)	(25)	(5)	4	29	41	7	14	14
Income taxes	246	428	340	277	(22)	60	179	(27)	66	153	300	92	36	5
Other	(8)	(6)	2	(26)	(92)	(5)	(44)	(8)	(6)	(28)	1	–	2	–
Adjusted EBITDA	<u>\$1,092</u>	<u>\$1,666</u>	<u>\$1,564</u>	<u>\$1,239</u>	<u>\$282</u>	<u>\$752</u>	<u>\$1,161</u>	<u>\$505</u>	<u>\$749</u>	<u>\$911</u>	<u>\$1,384</u>	<u>\$400</u>	<u>\$218</u>	<u>\$90</u>
Production (thousand metric tons) (kmt)	14,598	15,128	15,084	15,256	14,265	15,922	16,486	16,342	16,618	16,606	15,720	3,933	3,856	3,330
Adjusted EBITDA / Production (\$ per metric ton)	\$75	\$110	\$104	\$81	\$20	\$47	\$70	\$31	\$45	\$55	\$88	\$102	\$57	\$27

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Primary Metals Adjusted EBITDA

(\$ in millions, except per metric ton amounts)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$822	\$1,760	\$1,445	\$931	\$(612)	\$488	\$481	\$309	\$(20)	\$594	\$155	\$187	\$(40)	\$14
Add:														
Depreciation, depletion, and amortization	368	395	410	503	560	571	556	532	526	494	429	109	105	102
Equity loss (income)	12	(82)	(57)	(2)	26	(1)	7	27	51	34	12	3	(3)	(4)
Income taxes	307	726	542	172	(365)	96	92	106	(74)	203	(28)	57	(42)	(16)
Other	(96)	(13)	(27)	(32)	(176)	(7)	2	(422)	(8)	(6)	(2)	(1)	1	(1)
Adjusted EBITDA	<u>\$1,413</u>	<u>\$2,786</u>	<u>\$2,313</u>	<u>\$1,572</u>	<u>\$(567)</u>	<u>\$1,147</u>	<u>\$1,138</u>	<u>\$552</u>	<u>\$475</u>	<u>\$1,319</u>	<u>\$566</u>	<u>\$355</u>	<u>\$21</u>	<u>\$95</u>
Production (thousand metric tons) (kmt)	3,554	3,552	3,693	4,007	3,564	3,586	3,775	3,742	3,550	3,125	2,811	711	699	655
Adjusted EBITDA / Production (\$ per metric ton)	\$398	\$784	\$626	\$392	\$(159)	\$320	\$301	\$148	\$134	\$422	\$201	\$499	\$30	\$145

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Upstream(1) Adjusted EBITDA

(in millions)	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$1,658	\$(500)	\$789	\$1,088	\$399	\$239	\$964	\$901	\$408	\$58	\$22
Add:											
Depreciation, depletion, and amortization	771	852	977	1,000	987	952	881	725	189	173	165
Equity (income) loss	(9)	18	(11)	(18)	22	55	63	53	10	11	10
Income taxes	449	(387)	156	271	79	(8)	356	272	149	(6)	(11)
Other	(58)	(268)	(12)	(42)	(430)	(14)	(34)	(1)	(1)	3	(1)
Adjusted EBITDA	<u>\$2,811</u>	<u>\$(285)</u>	<u>\$1,899</u>	<u>\$2,299</u>	<u>\$1,057</u>	<u>\$1,224</u>	<u>\$2,230</u>	<u>\$1,950</u>	<u>\$755</u>	<u>\$239</u>	<u>\$185</u>

(1) Upstream is composed of the Alumina and Primary Metals segments.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Global Rolled Products Adjusted EBITDA

(\$ in millions, except per metric ton amounts)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$278	\$233	\$178	\$(3)	\$(49)	\$220	\$266	\$358	\$292	\$245	\$244	\$54	\$52	\$68
Add:														
Depreciation, depletion, and amortization	220	223	227	216	227	238	237	229	226	235	227	56	59	56
Equity loss	–	2	–	–	–	–	3	6	13	27	32	9	8	11
Income taxes	121	58	92	35	48	92	104	167	123	89	109	36	20	34
Other	1	20	1	6	(2)	1	1	(2)	–	(1)	(1)	–	–	(1)
Adjusted EBITDA	\$620	\$536	\$498	\$254	\$224	\$551	\$611	\$758	\$654	\$595	\$611	\$155	\$139	\$168
Total shipments (thousand metric tons) (kmt)	2,250	2,376	2,482	2,361	1,888	1,755	1,866	1,943	1,989	2,056	1,836	447	446	449
Adjusted EBITDA / Total shipments (\$ per metric ton)	\$276	\$226	\$201	\$108	\$119	\$314	\$327	\$390	\$329	\$289	\$333	\$347	\$312	\$374

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Engineered Products and Solutions Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$183	\$237	\$351	\$465	\$321	\$355	\$436	\$484	\$569	\$579	\$595	\$156	\$123	\$162
Add:														
Depreciation, depletion, and amortization	114	111	114	118	118	114	120	122	124	137	233	51	67	65
Income taxes	86	128	186	225	159	182	224	248	286	298	282	76	54	78
Other	(12)	2	2	2	2	–	–	–	–	–	–	(1)	–	–
Adjusted EBITDA	<u>\$371</u>	<u>\$478</u>	<u>\$653</u>	<u>\$810</u>	<u>\$600</u>	<u>\$651</u>	<u>\$780</u>	<u>\$854</u>	<u>\$979</u>	<u>\$1,014</u>	<u>\$1,110</u>	<u>\$282</u>	<u>\$244</u>	<u>\$305</u>
Third-party sales	\$2,966	\$3,406	\$3,821	\$4,215	\$3,355	\$3,225	\$3,716	\$3,863	\$4,054	\$4,217	\$5,342	\$1,257	\$1,409	\$1,449
Adjusted EBITDA Margin	12.5%	14.0%	17.1%	19.2%	17.9%	20.2%	21.0%	22.1%	24.1%	24.0%	20.8%	22.4%	17.3%	21.0%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Transportation and Construction Solutions Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$94	\$129	\$94	\$82	\$5	\$73	\$109	\$126	\$167	\$180	\$166	\$38	\$40	\$39
Add:														
Depreciation, depletion, and amortization	50	45	55	53	65	48	45	42	42	42	43	10	11	11
Equity loss (income)	–	6	–	–	(2)	(2)	(1)	–	–	–	–	–	–	–
Income taxes	30	27	7	–	(21)	18	38	49	67	69	63	14	14	14
Other	1	(4)	(10)	–	–	–	(1)	(9)	(2)	–	(1)	1	–	–
Adjusted EBITDA	\$175	\$203	\$146	\$135	\$47	\$137	\$190	\$208	\$274	\$291	\$271	\$63	\$65	\$64
Third-party sales	\$1,954	\$2,204	\$2,249	\$2,270	\$1,537	\$1,656	\$1,936	\$1,914	\$1,951	\$2,021	\$1,882	\$471	\$444	\$429
Adjusted EBITDA Margin	9.0%	9.2%	6.5%	5.9%	3.1%	8.3%	9.8%	10.9%	14.0%	14.4%	14.4%	13.4%	14.6%	14.9%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Value Add⁽¹⁾ Adjusted EBITDA

(\$ in millions)	2008	2009	2010	2011	2012	2013	2014	2015	1Q15	4Q15	1Q16
After-tax operating income (ATOI)	\$544	\$277	\$648	\$811	\$968	\$1,028	\$1,004	\$1,005	\$248	\$215	\$269
Add:											
Depreciation, depletion, and amortization	387	410	400	402	393	392	414	503	117	137	132
Equity (income) loss	–	(2)	(2)	2	6	13	27	32	9	8	11
Income taxes	260	186	292	366	464	476	456	454	126	88	126
Other	8	–	1	–	(11)	(2)	(1)	(2)	–	–	(1)
Adjusted EBITDA	\$1,199	\$871	\$1,339	\$1,581	\$1,820	\$1,907	\$1,900	\$1,992	\$500	\$448	\$537
Third-party sales	\$15,451	\$10,961	\$11,158	\$13,294	\$13,155	\$13,111	\$13,589	\$13,462	\$3,349	\$3,275	\$3,275
Adjusted EBITDA Margin	7.8%	7.9%	12.0%	11.9%	13.8%	14.5%	14.0%	14.8%	14.9%	13.7%	16.4%

⁽¹⁾ Value Add is composed of the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. The Other line in the table above includes gains/losses on asset sales and other non-operating items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of Free Cash Flow

(in millions)	Year ended						Quarter ended		
	December 31, <u>2010</u>	December 31, <u>2011</u>	December 31, <u>2012</u>	December 31, <u>2013</u>	December 31, <u>2014</u>	December 31, <u>2015</u>	March 31, <u>2015</u>	December 31, <u>2015</u>	March 31, <u>2016</u>
Cash from operations	\$2,261	\$2,193	\$1,497	\$1,578	\$1,674	\$1,582	\$(175)	\$865	\$(430)
Capital expenditures	(1,015)	(1,287)	(1,261)	(1,193)	(1,219)	(1,180)	(247)	(398)	(251)
Free cash flow	\$1,246	\$906	\$236	\$385	\$455	\$402	\$(422)	\$467	\$(681)

Free Cash Flow is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures due to the fact that these expenditures are considered necessary to maintain and expand Alcoa's asset base and are expected to generate future cash flows from operations. It is important to note that Free Cash Flow does not represent the residual cash flow available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

Days Working Capital

(\$ in millions)

	Quarter ended							
	31-Mar-12	30-Jun-12	30-Sep-12	31-Dec-12	31-Mar-13	30-Jun-13	30-Sep-13	31-Dec-13
Receivables from customers, less allowances	\$1,709	\$1,650	\$1,600	\$1,573	\$1,704	\$1,483	\$1,427	\$1,383
Add: Deferred purchase price receivable ⁽¹⁾	85	144	104	53	50	223	347	339
Receivables from customers, less allowances, as adjusted	1,794	1,794	1,704	1,626	1,754	1,706	1,774	1,722
Add: Inventories	3,079	3,097	3,051	2,894	2,961	2,949	2,932	2,783
Less: Accounts payable, trade	2,660	2,594	2,496	2,587	2,656	2,820	2,746	2,816
Working Capital ⁽²⁾	\$2,213	\$2,297	\$2,259	\$1,933	\$2,059	\$1,835	\$1,960	\$1,689
Sales	\$6,006	\$5,963	\$5,833	\$5,898	\$5,833	\$5,849	\$5,765	\$5,585
Days Working Capital	34	35	36	30	32	29	31	28

Days Working Capital = Working Capital divided by (Sales/number of days in the quarter).

⁽¹⁾ The deferred purchase price receivable relates to an arrangement to sell certain customer receivables to several financial institutions on a recurring basis. Alcoa is adding back this receivable for the purposes of the Days Working Capital calculation.

⁽²⁾ The Working Capital for each period presented represents an average quarter Working Capital, which reflects the capital invested during a given quarter. As such, the components of Working Capital for each period presented represent the average of the ending balances in each of the three months during the respective quarter.

Days Working Capital

(\$ in millions)

	Quarter ended								
	31-Mar-14	30-Jun-14	30-Sep-14	31-Dec-14	31-Mar-15	30-Jun-15	30-Sep-15 ⁽³⁾	31-Dec-15 ⁽³⁾	31-Mar-16 ⁽³⁾
Receivables from customers, less allowances	\$1,391	\$1,401	\$1,526	\$1,513	\$1,487	\$1,548	\$1,489	\$1,428	\$1,462
Add: Deferred purchase price receivable ⁽¹⁾	238	371	438	395	389	421	382	324	238
Receivables from customers, less allowances, as adjusted	1,629	1,772	1,964	1,908	1,876	1,969	1,871	1,752	1,700
Add: Inventories	2,974	3,201	3,194	3,064	3,189	3,230	3,443	3,523	3,516
Less: Accounts payable, trade	2,813	2,880	3,016	3,021	2,936	2,978	2,871	2,842	2,654
Working Capital ⁽²⁾	\$1,790	\$2,093	\$2,142	\$1,951	\$2,129	\$2,221	\$2,443	\$2,433	\$2,562
Sales	\$5,454	\$5,836	\$6,239	\$6,377	\$5,819	\$5,897	\$5,573	\$5,245	\$4,947
Days Working Capital	30	33	32	28	33	34	40	43	47

Days Working Capital = Working Capital divided by (Sales/number of days in the quarter).

⁽¹⁾ The deferred purchase price receivable relates to an arrangement to sell certain customer receivables to several financial institutions on a recurring basis. Alcoa is adding back this receivable for the purposes of the Days Working Capital calculation.

⁽²⁾ The Working Capital for each period presented represents an average quarter Working Capital, which reflects the capital invested during a given quarter. As such, the components of Working Capital for each period presented represent the average of the ending balances in each of the three months during the respective quarter.

⁽³⁾ In the quarters ended September 30, 2015, December 31, 2015, and March 31, 2016 Working Capital and Sales include \$405 and \$147, respectively, \$606 and \$207, respectively, and \$640 and \$217, respectively, related to two acquisitions, TITAL (March 2015), and RTI International Metals (July 2015). Excluding these amounts, Days Working Capital was 35, 33 and 37 for the quarters ended September 30, 2015, December 31, 2015, and March 31, 2016, respectively.

Reconciliation of Net Debt

(in millions)

	December 31,				March 31,	
	2011	2012	2013	2014	2015	2016
Short-term borrowings	\$62	\$53	\$57	\$54	\$38	\$40
Commercial paper	224	–	–	–	–	–
Long-term debt due within one year	445	465	655	29	21	772
Long-term debt, less amount due within one year	8,542	8,226	7,534	8,704	8,993	8,257
Total debt ⁽¹⁾	9,273	8,744	8,246	8,787	9,052	9,069
Less: Cash and cash equivalents	1,939	1,861	1,437	1,877	1,919	1,384
Net debt	\$7,334	\$6,883	\$6,809	\$6,910	\$7,133	\$7,685

⁽¹⁾Debt amounts for 2011-2015 have been updated to reflect the adoption of FASB guidance (effective January 1, 2016) requiring presentation of debt issuance costs as a reduction of debt rather than as a noncurrent asset.

Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa's leverage position after factoring in available cash that could be used to repay outstanding debt.

Reconciliation of Debt-to-Adjusted EBITDA Ratio

(\$ in millions)	2011	2012	2013	2014	2015	1Q16*
Net income (loss) attributable to Alcoa	\$611	\$191	\$(2,285)	\$268	\$(322)	\$(501)
Add:						
Net income (loss) attributable to noncontrolling interests	194	(29)	41	(91)	125	60
Loss from discontinued operations	3	–	–	–	–	–
Provision for income taxes	255	162	428	320	445	249
Other expenses (income), net	(87)	(341)	(25)	47	2	48
Interest expense	524	490	453	473	498	503
Restructuring and other charges	281	172	782	1,168	1,195	1,111
Impairment of goodwill	–	–	1,731	–	25	25
Provision for depreciation, depletion, and amortization	1,479	1,460	1,421	1,371	1,280	1,267
Adjusted EBITDA	\$3,260	\$2,105	\$2,546	\$3,556	\$3,248	\$2,762
Total Debt ⁽¹⁾	\$9,273	\$8,744	\$8,246	\$8,787	\$9,052	\$9,069
Debt-to-Adjusted EBITDA Ratio	2.84	4.16	3.24	2.47	2.79	3.28

*The calculation of Adjusted EBITDA for the quarter ended March 31, 2016 is based on the trailing twelve months.

⁽¹⁾Debt amounts for 2011-2015 have been updated to reflect the adoption of FASB guidance (effective January 1, 2016) requiring presentation of debt issuance costs as a reduction of debt rather than as a noncurrent asset.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Reconciliation of RTI International Metals Adjusted EBITDA*

(\$ in millions)	2014	1Q15
Net income	\$31	\$5
Add:		
Net loss attributable to discontinued operations	-	-
Provision (benefit) for income taxes	10	(1)
Interest expense	31	8
Interest income	-	-
Other (income) expense, net	(2)	-
Merger-related expenses	-	5
Depreciation and amortization	45	11
Adjusted EBITDA	\$115	\$28
Net sales	\$794	\$198
Adjusted EBITDA Margin	14.5%	14.1%

* The calculation of Adjusted EBITDA for RTI International Metals (RTI) (now Alcoa Titanium and Engineered Products) is based on Alcoa's definition of Adjusted EBITDA (see below) and does not purport to be the manner in which RTI's former management would have calculated RTI's Adjusted EBITDA. Additionally, this calculation of Adjusted EBITDA is not intended to suggest that RTI's former management used Adjusted EBITDA as a measure of RTI's profitability. The amounts used in these calculations were obtained from RTI's Annual Report on Form 10-K for the year ended December 31, 2014 and Quarterly Report on Form 10-Q for the three months ended March 31, 2015 filed with the U.S. Securities and Exchange Commission on February 26, 2015 and April 30, 2015, respectively.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.