



pwc

Our Top 100 analysis of aerospace companies' 2013 financial performance puts hard data behind anecdotal evidence that the industry has never had it so good

DAN THISDELL LONDON

Anybody one talks to in the aerospace industry today seems to agree that the civil aviation boom that started in the mid-2000s has years to run. The financial crisis of 2008-2009 caused a wobble, for sure, but even a recession worse than any since the 1930s and high oil prices have failed to prevent a strong rebound in sales and profits, and the resumption of steady growth that outstrips world GDP. In short, aerospace has never had it so good.

As shown by our annual Top 100 report – compiled, as ever, by the aerospace experts at PwC – revenue growth has averaged 5.6% yearly since 2005, and was more than 5% in 2013, the year examined in detail here.

Notable movements at the top of the table are few: GE Aviation (7) and Finmeccanica (8) swapped places, and Dassault moved into the top 20, replacing Thales, which slipped four places on minimal growth.

The ongoing clampdown on defence spending in Western countries has not led to any meltdowns. Companies focussed on military aerospace have tended to fall back in sales terms, but are generally holding their ground on the profits front. And, it is still early days in their push into the cybersecurity market – and into civil aerospace.

A contrarian view would note growing economic storm clouds and rising geopolitical tension in Europe, the Middle East and the Asia-Pacific. But, for an industry that has thrived despite the greatest financial meltdown of modern times, there is plenty of cause to expect more good years like the 2013 charted in this year's Top 100. ■

To view our full list of the Top 100 aerospace companies, including revenue and profit figures, visit flightglobal.com/top100



Marie Emmermann/Skoornat

1
BOEING



At long last, the 787 is starting to motor

Revenue: \$86.6 billion (+6%)

Profit: \$6.56 billion (+4.3%)

Margin: 7.6%

boeing.com

Boeing comfortably held top spot with what by any measure was a cracking year in 2013, setting company records for revenue and core operating earnings while delivering an industry-record 648 commercial aeroplanes.

Not surprisingly, that total included its best ever 787 performance – but more 737s and 777s than ever also flew out the gates. Furthermore, 1,355 new net airliner orders left Boeing with its biggest ever backlog: 5,080 civil aircraft valued at more than \$374 billion.

The launch of the 787-10 and 777X completes a “comprehensive” product line renewal so, as Boeing puts it: “The imperative now is to execute.”

US market woes notwithstanding, Boeing’s \$33 billion defence, space and security division still delivered 164 military aircraft and kept the order backlog at a “healthy” \$67 billion, underpinned by heavy cost cuts.



Australia may add to its C-17 fleet

2
AIRBUS

Revenue: \$78.7 billion (+4.9%)

Profit: \$3.53 billion (+24.1%)

Margin: 4.5%

airbus-group.com

The former EADS did not quite keep pace with Boeing in sales growth, but its focus on profitability continues to bear fruit, and a major reorganisation does not appear to have hampered momentum. Chief executive Tom Enders is determined to finish a transformation from Franco-German political project to global commercial enterprise – but the big question is, can he put the defence business on a growth path, given low spending in his domestic markets? Boeing, by contrast, has the luxury of being a top gun supplier to the world’s biggest defence spender.

The A400M Atlas carries cargo, troops and Airbus’s hopes



3

LOCKHEED MARTIN

Revenue: \$45.4 billion (-3.9%)

Profit: \$4.51 billion (+1.6%)

Margin: 9.9%

lockheedmartin.com

US military budget cuts hurt, but profits edged up and the year closed with a record backlog of \$82.6 billion

4

UNITED TECHNOLOGIES

Revenue: \$33.1 billion (+13.8%)

Profit: \$4.49 billion (+38.3%)

Margin: 13.6%

utc.com

A big rise is no surprise after 2012's \$18 billion Goodrich deal, but like-for-like growth is solid so far this year at UTC

5

NORTHROP GRUMMAN

Revenue: \$24.7 billion (-2.2%)

Profit: \$3.12 billion (-0.2%)

Margin: 12.7%

northropgrumman.com

Another defence major feeling US defence cuts, especially in UAVs – a story that has continued through H1 2014

6

RAYTHEON

Revenue: \$23.7 billion (-2.9%)

Profit: \$2.94 billion (-1.7%)

Margin: 12.4%

raytheon.com

Sales are down by nearly 6% from a 2010 peak, but Raytheon has kept profit in sight of 2009's five-year high. The company described 2013 as a year of "good performance in a challenging environment", underscoring its "strategic focus on global markets"; 2013 sales outside of the USA grew by 3% to reach 27% of the total



For the RAF, Paveway bombs do the talking

Eurolight

7

GE AVIATION

+1

Revenue: \$21.9 billion (+9.9%)

Profit: \$4.35 billion (+16%)

Margin: 19.8%

geaviation.com

Always solid, up a spot to 7 and with a profit margin that leads the top 10 by a mile; Avio Aero acquisition is paying off

10

ROLLS-ROYCE

Revenue: \$14.5 billion (+4.4%)

Profit: \$2.01 billion (+12.7%)

Margin: 13.9%

rolls-royce.com

The civil aero engines business enjoyed an orderbook surge of 22% to more than \$60 billion, led by orders for 227 Airbus A350s – Rolls-Royce's Trent XWB is the sole A350 power option. For 2014, R-R expects modest revenue and good profit growth before turning on the juice in 2015, when A350 deliveries should be ramping up.

8

FINMECCANICA

-1

Revenue: \$19.4 billion (-4.3%)

Profit: \$61 million (2012: -\$703 million)

Margin: 0.3%

finmeccanica.com

Back to black, but restructuring goes on and the AgustaWestland scandal has ruled out new business with New Delhi

9

SAFRAN

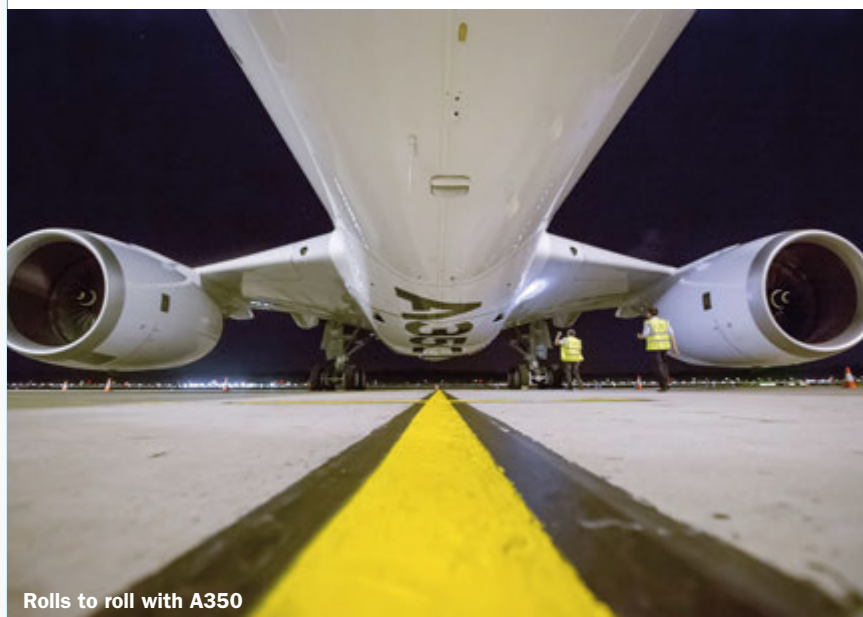
Revenue: \$17.5 billion (+9.8%)

Profit: \$2.41 billion (+27.4%)

Margin: 13.8%

safran-group.com

The French group made a transformative move in electrical systems with its 2013 deal to acquire Goodrich power from UTC



Rolls to roll with A350

Airbus

11
HONEYWELL

Revenue: \$12.0 billion (-0.5%)
Profit: \$2.37 billion (+4.1%)
Margin: 19.8%
honeywell.com
 Favourable pricing and increased civil equipment sales were offset by lower volume in defence, space and aftersales

13
L-3 COMMUNICATIONS

-1

Revenue: \$10.2 billion (-13.0%)
Profit: \$1.17 billion (-7.8%)
Margin: 11.5%
l-3com.com
 2014 numbers looked better at the half-way point, but may sag with the cost of accounting misconduct dating to 2010

14
GENERAL DYNAMICS

+1

Revenue: \$10.0 billion (+10.8%)
Profit: not available
Margin: not available
generaldynamics.com
 GD upped deliveries of its Gulfstream G650 and G280 models, and pulled support unit Jet Aviation back to profit

12
BAE SYSTEMS

+1



Revenue: \$10.6 billion (+6.2%)
Profit: not available
Margin: not available
baesystems.com
 Defence is a tough business, but BAE is enjoying some export success, with Eurofighter Typhoons going to Saudi Arabia and Oman, which is also buying Hawk trainers. An August 2014 Boeing fleet support deal with Emirates points to civil market potential.

15
BOMBARDIER

+1



Revenue: \$9.4 billion (+8.8%)
Profit: \$418 million (+7.7%)
Margin: 4.5%
bombardier.com
 Following a 2012 which saw sales growth barely register, Canada's champion turned in a solid revenue performance. Profits nearly kept up to hold the margin steady despite heavy investment, which helped get the CSeries airliner to its maiden flight. However, the midsize Learjet 85 business jet, which was at one point supposed to be certificated in 2013, only flew for the first time in April this year, and may now face a development slowdown that would see investment focused on the top-of-the-range Global 7000 and 8000, which are facing increasing competition for lucrative sales. Other headaches include a May 2014 P&W engine failure that temporarily stopped CSeries flight tests, and subsequent corporate restructure apparently designed to light a fire under the programme. Meanwhile, steadily rising cash burn reached \$1.2 billion last year.

Time to get the wheels up

16 **TEXTRON** -2

Revenue: \$8.96 billion (-1.8%)
 Profit: \$672 million (-21.2%)
 Margin: 7.5%
 textron.com

17 **MITSUBISHI (MHI)** +2

Revenue: \$6.86 billion (+37.8%)
 Profit: \$482 million (+61.5%)
 Margin: 7.0%
 mhi-global.com

18 **PRECISION CASTPARTS** +2

Revenue: \$6.56 billion (+19.8%)
 Profit: not available
 Margin: not available
 precast.com

19 **EMBRAER** -2

Revenue: \$6.24 billion (+1.1%)
 Profit: \$713 million (+16.6%)
 Margin: 11.4%
 mhi-global.com

20 **DASSAULT AVIATION** +2

Revenue: \$6.10 billion (+16.5%)
 Profit: \$661 million (-9.0%)
 Margin: 10.8%
 dassault-aviation.com

21 **SPIRIT AEROSYSTEMS**

Revenue: \$5.96 billion (+10.4%)
 Loss: \$108 million (2012 profit: \$114m)
 Margin: -1.8%
 spiritaero.com

22 **THALES** -4

Revenue: \$5.91 billion (+0.8%)
 Profit: \$491 million (+24.6%)
 Margin: 8.3%
 thalesgroup.com

23 **ZODIAC** +1

Revenue: \$5.17 billion (+13.1%)
 Profit: \$749 million (+16.0%)
 Margin: 14.5%
 zodiacaerospace.com

24 **MTU AERO ENGINES** +1

Revenue: \$4.97 billion (+10.7%)
 Profit: \$425 million (+6.2%)
 Margin: 8.5%
 mtu.de

25 **ROCKWELL COLLINS** -2

Revenue: \$4.61 billion (-2.5%)
 Profit: \$880 million (+2.4%)
 Margin: 19.1%
 rockwellcollins.com

26 **IHI** +1

Revenue: \$4.16 billion (+20.0%)
 Profit: \$376 million (+138%)
 Margin: 9.0%
 ihi.co.jp/en

27 **ALCOA** +1

Revenue: \$4.0 billion (+5.1%)
 Profit: \$1.22 billion (-11.1%)
 Margin: 30.5%
 alcoa.com

28 **TRIUMPH GROUP** +1

Revenue: \$3.76 billion (+1.6%)
 Profit: \$400 million (-24.7%)
 Margin: 10.6%
 triumphgroup.com

29 **HARRIS** -3

Revenue: \$3.68 billion (-7.6%)
 Profit: \$832 million (-13.3%)
 Margin: 22.6%
 harris.com

30 **ISRAEL AEROSPACE (IAI)** +1

Revenue: \$3.64 billion (+9.1%)
 Profit: \$84 million (+6.3%)
 Margin: 2.3%
 iai.co.il

31 **AVIC** +3

Revenue: \$3.59 billion (+20.8%)
 Profit: \$284 million (+13.5%)
 Margin: 7.9%
 avic.com.cn

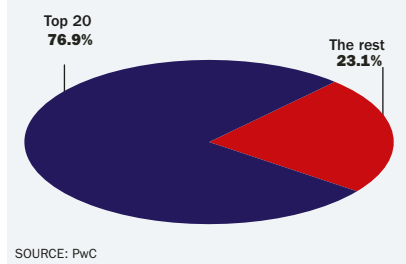
TOP 100

After the wild post-crisis swings in 2009 and 2010, the industry has settled down into the familiar pre-2008 pattern of profit and revenue growth comfortably outrunning world GDP. However, revenue growth appears to be trending at a lower level than it was pre-crisis, no doubt reflecting the squeeze on Western defence budgets and the continued patchy performance of the business aviation market. Civil aviation is making the running, and with Airbus and Boeing holding record orderbooks it looks likely to continue keeping the industry propped up. But, globally, there are enough economic storm clouds brewing to leave prudent business leaders wary of the potential impact of, for example, an Asia-Pacific recession to put at least a temporary damper on sales growth.

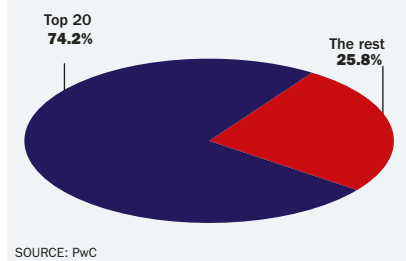


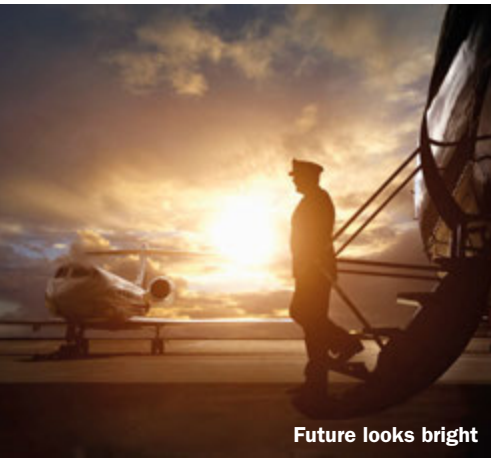
Year-on-year sales growth of numbers 21-100; the top 20 managed just 3.8%

TOP 20 SHARE OF TOP 100 REVENUE

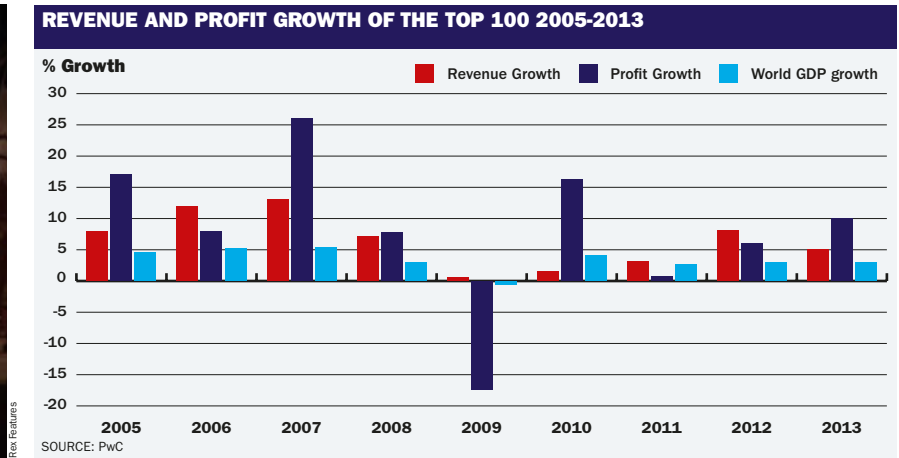


TOP 20 SHARE OF TOP 100 PROFITS





Future looks bright



68

Number of Top 100 companies posting revenue of \$1bn-plus

\$588

Billions, that is – Top 100 revenue hit another all-time record in 2013

5.6%

Top 100 annual compound revenue growth rate since 2005, when it was \$381bn

TOP 20 BY OPERATING GROWTH 2013			
Rank by margin	Rank by sales	Company	Operating margin
1	45	TransDigm	41.2%
2	27	Alcoa	36.0%
3	86	FLIR Systems	32.9%
4	91	Garmin	25.0%
5	39	Meggitt	24.4%
6	29	Harris	24.1%
7	94	Martin-Baker	23.7%
8	79	Crane Aerospace	22.3%
9	11	Honeywell	18.9%
10	7	GE Aviation	18.8%
11	25	Rockwell Collins	18.2%
12	68	Heico	18.2%
13	33	B/E Aerospace	17.5%
14	62	Ultra Electronics	16.0%
15	75	Senior	15.5%
16	82	Kaman Aerospace	15.3%
17	71	LISI	15.3%
18	65	Woodward	14.5%
19	28	Triumph Group	14.3%
20	50	MDA Communications	14.2%

SOURCE: PwC

TOP 20 BY SALES GROWTH 2013			
Rank by growth %	Rank by sales	Company	Sales growth (%)
1	50	MDA Communications	106.7%
2	64	Pilatus	71.0%
3	87	LMI Aerospace	48.0%
4	32	GKN Aerospace	41.6%
5	57	Aerojet Rocketdyne	39.7%
6	59	Fuji Heavy Industries	39.6%
7	17	Mitsubishi	37.8%
8	49	Korea Aerospace Industries	31.4%
9	100	Aero Vodochody	29.1%
10	77	FACC	25.8%
11	46	Irkut	24.5%
12	95	Denel	21.3%
13	31	AVIC	20.8%
14	26	IHI	20.0%
15	18	Precision Castparts	19.8%
16	66	Cytec	19.1%
17	65	Woodward	18.4%
18	35	Kawasaki	17.4%
19	20	Dassault Aviation	16.5%
20	91	Garmin	16.4%

SOURCE: PwC

32 **GKN AEROSPACE** +7

Revenue: **\$3.51 billion (+41.6%)**
 Profit: **\$416 million (+50.3%)**
 Margin: **11.9%**
gkn.com/aerospace

33 **B/E AEROSPACE**

Revenue: **\$3.48 billion (+12.9%)**
 Profit: **\$629 million (+16.5%)**
 Margin: **18.1%**
beaerospace.com

34 **ALLIANT TECHSYSTEMS** -4

Revenue: **\$3.23 billion (-4.4%)**
 Profit: **\$352 million (-15.1%)**
 Margin: **10.9%**
atk.com

35 **KAWASAKI (KHI)**

Revenue: **\$2.88 billion (+17.4%)**
 Profit: **\$268 million (+77.0%)**
 Margin: **9.3%**
khi.co.jp/english/aero

36 **COBHAM**

Revenue: **\$2.80 billion (+2.3%)**
 Profit: **\$249 million (-32.9%)**
 Margin: **8.9%**
cobham.com

37 **EXELIS**

Revenue: **\$2.60 billion (+0.2%)**
 Profit: **not available**
 Margin: **not available**
exelisinco.com

38 **HINDUSTAN AERONAUTICS** -6

Revenue: **\$2.60 billion (+6.0%)**
 Profit: **\$283 million (+38.3%)**
 Margin: **10.9%**
hal-india.com

39 **MEGGITT** -1

Revenue: **\$2.56 billion (+1.9%)**
 Profit: **\$621 million (+1.3%)**
 Margin: **24.3%**
meggitt.com

40 **ELBIT SYSTEMS**

Revenue: **\$2.52 billion (+5.1%)**
 Profit: **not available**
 Margin: **not available**
elbitsystems.com

DEFENCE

It says much about the defence market to note that just five companies could muster double-digit sales increases in 2013, and total sales for the top 10 were down by 7% on 2012. Whether 2014's full-year figures make happier reading remains to be seen, but while rising military tension in Europe, the Middle East and the Asia-Pacific may draw more spending, that money is likely to go to troops, logistics and munitions rather than aircraft programmes. One notable performer is Dassault, which has marked 22% growth two years running on the back of French orders, but will struggle to repeat this unless India closes its deal for 120 Rafales.

1.8%

Sales increase at Boeing defence to \$33bn, despite the US spending squeeze

3.8%

Sales decrease at Airbus defence; meagre European budgets aren't helping

DEFENCE AEROSPACE REVENUE GROWTH		
		2013 v 2012
1	United Technologies (UTC)	29.6%
2	Irkut	27.1%
3	Dassault Aviation	22.7%
4	Woodward	18.0%
5	Heico	12.5%
6	Israel Aerospace Industries	7.6%
7	Rolls-Royce	7.2%
8	BAE Systems	6.2%
9	Indra	3.3%
10	Heroux-Devtek	2.9%
11	Textron	2.1%
12	Magellan Aerospace	2.0%
13	CAE	1.9%
14	Boeing	1.8%

SOURCE: PwC

DEFENCE AEROSPACE SALES 2013		
		\$ million
1	Lockheed Martin	37,400
2	Boeing	28,217
3	Northrop Grumman	24,661
4	Raytheon	19,133
5	United Technologies (UTC)	15,680
6	Airbus	13,921
7	Finmeccanica	12,601
8	BAE Systems	10,596
9	L-3 Communications	8,899
10	Honeywell	4,870
11	Textron	4,379
12	Rolls-Royce	4,052
13	Israel Aerospace Industries	2,659
14	Dassault Aviation	1,864

SOURCE: PwC



41
TELEDYNE TECHNOLOGIES

Revenue: \$2.34 billion (+10.0%)
Profit: \$278 million (-0.7%)
Margin: 11.9%
teledyne.com

42
PARKER HANNIFIN

Revenue: \$2.27 billion (+7.8%)
Profit: \$280 million (-3.4%)
Margin: 12.3%
parker.com

43 +1
CAE

Revenue: \$2.05 billion (+3.9%)
Profit: \$284 million (+24.8%)
Margin: 13.8%
cae.com

44 -1
ESTERLINE

Revenue: \$1.97 billion (-1.1%)
Profit: \$238 million (+25.9%)
Margin: 12.1%
esterline.com

45 +1
TRANSDIGM

Revenue: \$1.92 billion (+13.2%)
Profit: \$748 million (+6.9%)
Margin: 38.9%
transdigm.com

46 +3
IRKUT

Revenue: \$1.91 billion (+24.5%)
Profit: \$138 million (+962%)
Margin: 7.2%
irkut.com

47
RUAG

Revenue: \$1.89 billion (+0.6%)
Profit: \$124 million (+1.8%)
Margin: 6.6%
ruag.com

48 +2
SAAB

Revenue: \$1.89 billion (+14.4%)
Profit: not available
Margin: not available
saabgroup.com

49 +4
KOREA AEROSPACE (KAI)

Revenue: \$1.85 billion (+31.4%)
Profit: \$114 million (-1.0%)
Margin: 6.2%
koreaaero.com/english

\$176bn

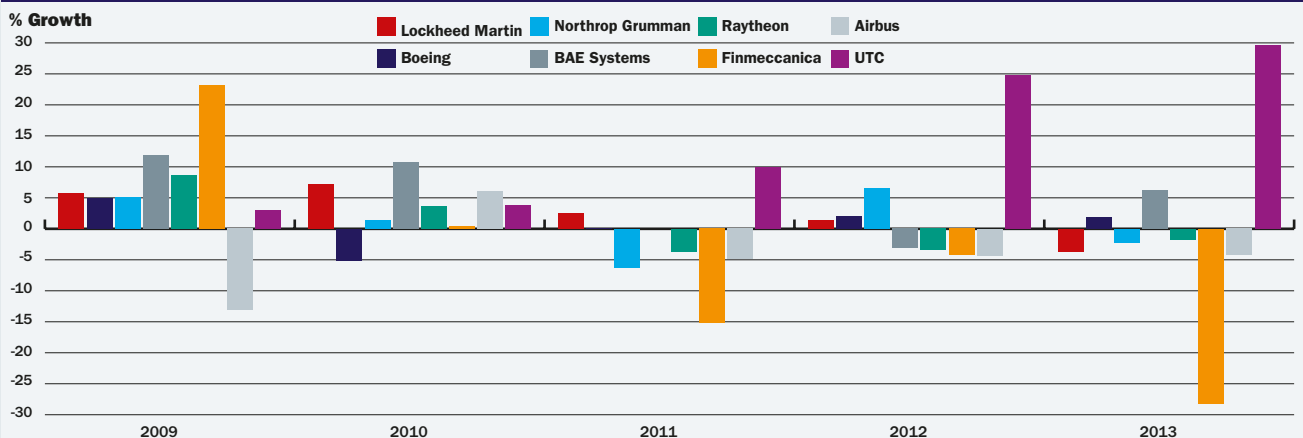
Total 2013 sales of the ten biggest defence majors – down 7% from \$183 billion



Canadian CF-18, on duty in Lithuania

PHOTO: FEATURES

DEFENCE SALES GROWTH 2009-2013



SOURCE: PWC

ENGINES

No change in the table except it drops from 10 players to just nine, with former number eight Avio's acquisition by GE – which would have kept its spot at the top even without the buy-out. But while GKN has described its 2012 acquisition of Volvo Aero as transformative – the deal at a stroke turned GKN into one of the world's major suppliers of engine components and structural elements – GE's \$4.3 billion August 2013 deal for Avio has shaken the industry. Not only was Avio a key supplier to GE, it was a long-standing key supplier to all of GE's rivals, so the parent and its new Italian unit have been working hard to convince everybody that it is business as usual – while developing proprietary Avio technologies that will inevitably feed into GE's development programme. Meanwhile, the battle for second place between UTC's Pratt & Whitney division and Rolls-Royce is getting interesting. R-R's Trent XWB (right) is the sole engine option for the Airbus A350, which should go into full production ramp-up early next year. P&W is dealing with the aftermath of the failure of one of its PurePower engines during a Bombardier CSeries flight test, and fourth-place Safran is pushing hard – with GE – to get their CFM International Leap (facing page) ready for the A320neo and Boeing 737 Max.



\$30m **\$79bn** **91%**

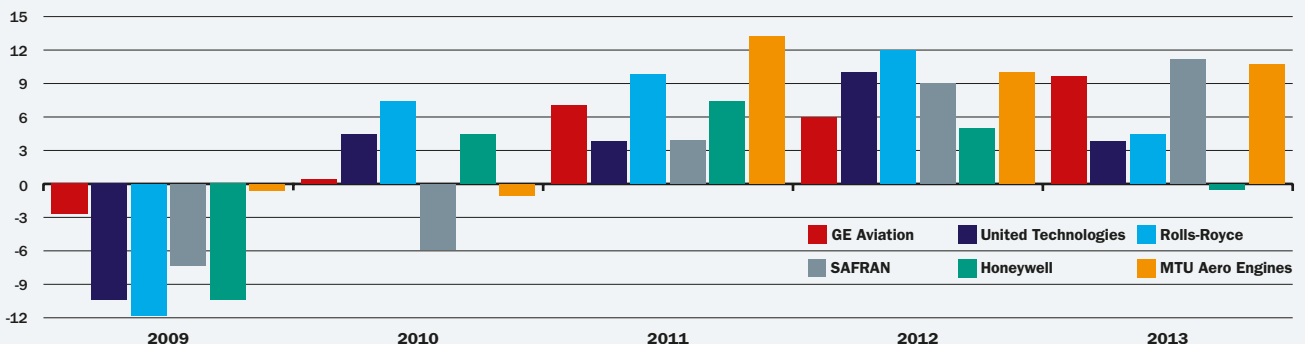
Honeywell stands alone in the sector with a sales decline - down 0.5%

Total sales of the nine biggest suppliers to the sector – up 5.6% on 2012

GKN nearly doubled engine parts sales in the first full year since buying Volvo

ENGINE AND COMPONENT SALES GROWTH 2009-2014

% revenue growth



SOURCE: PwC

ENGINE AND COMPONENTS SALES 2013

		\$ million
1	GE Aviation	21,911
2	United Technologies	14,501
3	Rolls-Royce	14,458
4	Safran	10,344
5	Honeywell	5,990
6	MTU Aero Engines	4,968
7	IHI	4,162
8	GKN Aerospace	1,754
9	ITP	832

SOURCE: PwC

ENGINES AND COMPONENTS SALES GROWTH

		2013 v 2012
1	GKN Aerospace	91.4%
2	IHI	20.0%
3	Safran	11.2%
4	MTU Aero Engines	10.7%
5	GE Aviation	9.6%
6	ITP	7.9%
7	Rolls-Royce	4.4%
8	United Technologies	3.8%
9	Honeywell	-0.5%

SOURCE: PwC

50 MDA COMMUNICATIONS +16

Revenue: \$1.82 billion (+107%)
Profit: \$180 million (44.0+%)
Margin: 9.9%
mdacorporation.com

51 EATON -6

Revenue: \$1.77 billion (+3.2%)
Profit: \$252 million (+18.3%)
Margin: 14.2%
eaton.com/aerospace

52 ST ENGINEERING -1

Revenue: \$1.67 billion (+3.1%)
Profit: \$233 million (+6.6%)
Margin: 14.0%
stengg.com

53 LIEBHERR +1

Revenue: \$1.49 billion (+8.4%)
Profit: not available
Margin: not available
liebherr.com

54 HEXCEL +2

Revenue: \$1.46 billion (+12.3%)
Profit: not available
Margin: not available
hexcel.com

55 MOOG

Revenue: \$1.46 billion (+10.1%)
Profit: 152 million (+2.7%)
Margin: 10.4%
moog.com

56 ALLEGHENY TECHNOLOGIES -8

Revenue: \$1.40 billion (-12.0%)
Profit: not available
Margin: not available
ATImetals.com/markets/aerospace

57 AEROJET ROCKETDYNE +6

Revenue: \$1.38 billion (+39.7%)
Profit: \$97 million (+14.1%)
Margin: 7.0%
gencorp.com

58 ORBITAL SCIENCES -6

Revenue: \$1.37 billion (-5.0%)
Profit: \$114 million (+0.9%)
Margin: 8.4%
orbital.com

59 FUJI HEAVY INDUSTRIES +2

Revenue: \$1.28 billion (+39.6%)
Profit: \$145 million (+108%)
Margin: 11.4%
fhi.co.jp/english

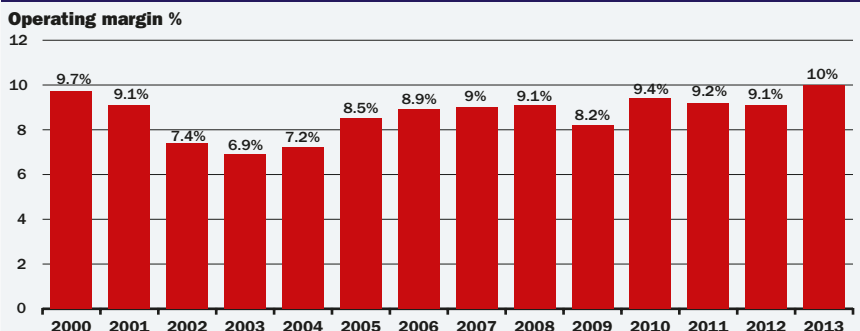
60 DAHER NEW

Revenue: \$1.28 billion (not available)
Profit: not available
Margin: not available
daher.com/cms/aerospace

61 KONGSBERG -4

Revenue: \$1.19 billion (-7.4%)
Profit: \$123 million (-26.8%)
Margin: 10.4%
kongsberg.com/en/kds

AVERAGE TOP 100 OPERATING MARGIN 2000-2013



SOURCE: PwC



LEAP aside when they turn it on

CFM International

62 ULTRA ELECTRONICS -4

Revenue: **\$1.17 billion (-2.1%)**
 Profit: **\$191 million (+0.0%)**
 Margin: **16.4%**
ultra-electronics.com

63 DIEHL AEROSYSTEMS -1

Revenue: **\$1.15 billion (+13.9%)**
 Profit: **not available**
 Margin: **not available**
diehl.com

64 PILATUS +18

Revenue: **\$1.09 billion (+71.0%)**
 Profit: **\$156 million (+281.6%)**
 Margin: **14.3%**
pilatus-aircraft.com

65 WOODWARD -4

Revenue: **\$1.06 billion (+18.4%)**
 Profit: **\$166 million (+27.7%)**
 Margin: **15.6%**
woodward.com

66 CYTEC +1

Revenue: **\$1.05 billion (+19.1%)**
 Profit: **not available**
 Margin: **not available**
cytec.com

67 FOKKER TECHNOLOGIES -7

Revenue: **\$1.01 billion (-0.9%)**
 Profit: **\$62 million (+6.8%)**
 Margin: **6.2%**
fokker.com

68 HEICO -4

Revenue: **\$1.01 billion (+12.5%)**
 Profit: **\$184 million (+12.9%)**
 Margin: **18.2%**
heico.com

69 CHEMRING -10

Revenue: **\$977 million (-15.5%)**
 Profit: **\$113 million (-18.2%)**
 Margin: **11.5%**
chemring.co.uk

70 BALL AEROSPACE -3

Revenue: **\$897 million (+2.3%)**
 Profit: **\$80 million (-5.9%)**
 Margin: **8.9%**
ballaerospace.com

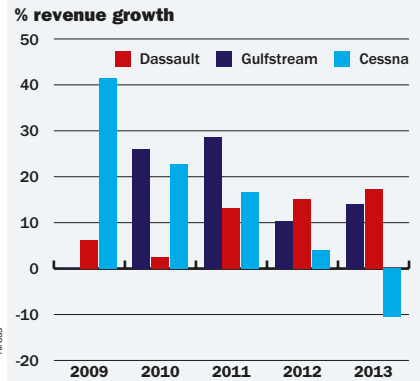
CIVIL

After the huge year-on-year revenue swings of 2008-2009 and economic doom-defying surges in orders and deliveries of 2010 and 2011, Airbus and Boeing may be settling down at a level reminiscent of the days prior to the boom that preceded the crisis. It is a level of activity that looks more like a sustainable civil aviation growth cycle than boom, bust and hangover, so the pair may – finally – be able to convince their supply chains that investment in ramped up output will not leave them burned. Meanwhile, ATR is the regional rising star, and in business jets, Cessna will be hoping its newly certificated Citation X+ can catch up with Dassault and Gulfstream.



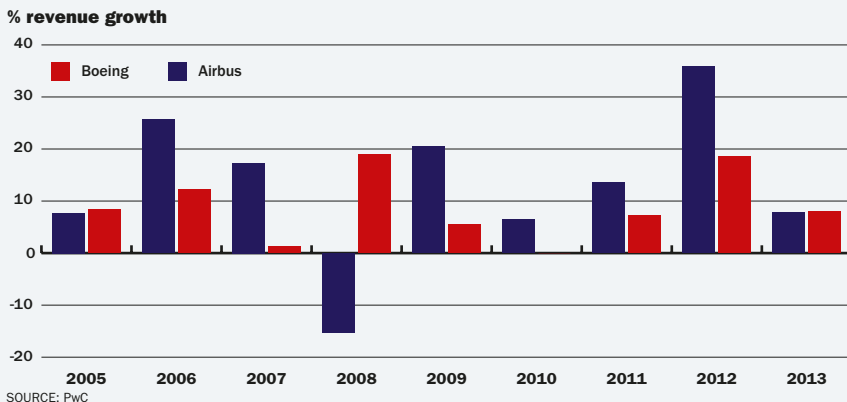
Wraps off A350

BUSINESS AIRCRAFT REVENUE GROWTH 2009-2013



SOURCE: PwC

LARGE CIVIL AIRCRAFT REVENUE GROWTH 2005-2013



SOURCE: PwC

76%

Airbus and Boeing account for more than three-quarters of all civil sales

71 **LISI** -1

Revenue: \$882 million (+11.7%)
Profit: \$157 million (+29.7%)
Margin: 17.8%
lisi-aerospace

72 **ITP** -1

Revenue: \$832 million (+7.9%)
Profit: \$62 million (+9.3%)
Margin: 7.5%
itp.es

73 **AMPHENOL** -4

Revenue: \$831 million (+1.8%)
Profit: not available
Margin: not available
amphenol.com

74 **LATECOERE** -3

Revenue: \$824 million (+6.9%)
Profit: \$42 million (+18.5%)
Margin: 5.2%
latecoere.fr

75 **SENIOR** -2

Revenue: \$788 million (+7.0%)
Profit: \$120 million (+5.5%)
Margin: 15.3%
seniorplc.com

76 **MAGELLAN AEROSPACE** +1

Revenue: \$728 million (+13.3%)
Profit: \$65 million (-3.1%)
Margin: 9.0%
magellan.aero

77 **FACC** +4

Revenue: \$725 million (+25.8%)
Profit: \$57 million (+19.4%)
Margin: 7.9%
facc.com

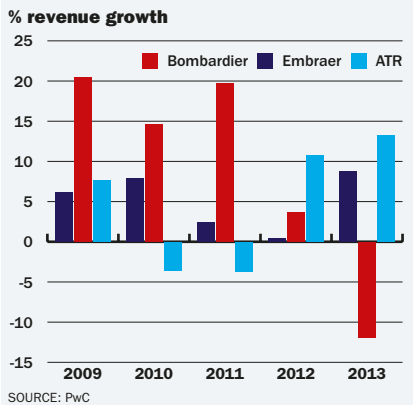
78 **CURTISS-WRIGHT** -2

Revenue: \$703 million (+4.8%)
Profit: not available
Margin: not available
curtisswright.com

79 **CRANE AEROSPACE** -5

Revenue: \$694 million (-1.0%)
Profit: \$160 million (+2.6%)
Margin: 23.1%
craneae.com

REGIONAL AIRCRAFT REVENUE GROWTH 2009-2013



20%

Year-on-year growth in civil aircraft revenue – nearly three times 2012's rise

CIVIL AIRCRAFT REVENUE 2013		\$ million
1	Boeing	52,981
2	Airbus (excl ATR)	52,139
3	Bombardier	9,385
4	Gulfstream*	8,118
5	Embraer	6,235
6	Cessna***	2,784
7	Dassault**	4,234
8	ATR****	1,640

NOTES: *part of General Dynamics **Falcon division ***part of Textron ****Airbus/Finmeccanica JV SOURCE: PwC

CIVIL AIRCRAFT REVENUE GROWTH		2013 v 2012
1	Gulfstream*	17.4%
2	Dassault**	14.0%
3	ATR****	13.9%
4	Bombardier	8.8%
5	Airbus (excl ATR)	8.0%
6	Boeing	7.8%
7	Embraer	1.1%
8	Cessna***	-10.5%

NOTES: *part of General Dynamics **Falcon division ***part of Textron ****Airbus/Finmeccanica JV SOURCE: PwC

80 AEROFLEX -5

Revenue: \$647 million (-3.9%)
Loss: \$11 million (2012 loss: \$21m)
 Margin: -1.7%
aeroflex.com

81 INDRA -3

Revenue: \$637 million (+3.3%)
 Profit: not available
 Margin: not available
indracompany.com

82 KAMAN AEROSPACE -2

Revenue: \$614 million (+5.7%)
 Profit: \$103 million (+15.7%)
 Margin: 16.8%
kaman.com/aerospace

83 SKF -2

Revenue: \$586 million (-1.5%)
 Profit: not available
 Margin: not available
skf.com

84 JAMCO -5

Revenue: \$582 million (+10.3%)
 Profit: \$45 million (+53.1%)
 Margin: 7.8%
jamco.co.jp/e

85 MARSHALL -2

Revenue: \$500 million (+5.3%)
 Profit: \$22 million (+7.7%)
 Margin: 4.4%
marshalladg.com

86 FLIR SYSTEMS -2

Revenue: \$457 million (-6.0%)
 Profit: \$126 million (-21.3%)
 Margin: 27.6%
flir.com

87 LMI AEROSPACE +6

Revenue: \$413 million (+48.0%)
Loss: \$49 million (not available)
 Margin: -11.9%
lmiaerospace.com



C-17 programme comes to a stop in 2015

88 ASCO -2

Revenue: \$412 million (+6.8%)
 Profit: \$20 million (not available)
 Margin: 4.8%
asco.be

89 ITT +1

Revenue: \$350 million (+12.2%)
 Profit: not available
 Margin: not available
itt.com

90 ELETTRONICA -3

Revenue: \$341 million (-4.8%)
 Profit: not available
 Margin: not available
elt-roma.com

91 GARMIN +1

Revenue: \$339 million (+16.4%)
 Profit: \$88 million (+20.0%)
 Margin: 25.8%
garmin.com

92 DUCOMMUN -1

Revenue: \$315 million (+1.7%)
 Profit: \$18 million (-37.1%)
 Margin: 5.7%
ducommun.com

93 DONCASTERS -4

Revenue: \$315 million (-1.8%)
 Profit: not available
 Margin: not available
doncasters.com

94 MARTIN-BAKER -7

Revenue: \$304 million (+9.1%)
 Profit: \$66 million (+0.0%)
 Margin: 21.8%
martin-baker.com

95 DENEL -7

Revenue: \$302 million (+21.3%)
 Profit: \$19 million (+959%)
 Margin: 6.2%
denelaerostructures.com

96 HEROUX-DEVTEK -1

Revenue: \$264 million (+5.8%)
 Profit: \$17 million (-14.2%)
 Margin: 6.4%
herouxdevtek.com

97 ACITURRI +1

Revenue: \$216 million (+12.4%)
 Profit: \$24 million (+50.0%)
 Margin: 11.0%
aciturri.com

98 TERMA -2

Revenue: \$202 million (-0.3%)
 Profit: \$15 million (+15.1%)
 Margin: 7.4%
terma.com

99 CIRCOR -1

Revenue: \$197 million (+5.9%)
 Profit: \$6 million (+20.0%)
 Margin: 3.0%
circor.com

100 AERO VODOCHODY -1

Revenue: \$186 million (+29.1%)
 Profit: \$20 million (+62.7%)
 Margin: 10.8%
aero.cz

TOP 100 BY COMPANY NAME

	Ranking		Ranking		Ranking
Aciturri	97	Exelis	37	Marshall	85
Aero Vodochody	100	FACC	77	Martin-Baker	94
Aeroflex	80	Finmeccanica	8	MDA Communications	50
Aerojet Rocketdyne (GenCorp)	57	FLIR Systems	86	Meggitt	39
Airbus	2	Fokker Technologies	67	Mitsubishi (MHI)	17
Alcoa	27	Fuji Heavy Industries	59	Moog	55
Allegheny Technologies (ATI)	56	Garmin	91	MTU Aero Engines	24
Alliant Techsystems	34	GE Aviation	7	Northrop Grumman	5
Amphenol	73	General Dynamics	14	Orbital Sciences	58
Asco	88	GKN Aerospace	32	Parker Hannifin	42
AVIC	31	Harris	29	Pilatus	64
B/E Aerospace	33	Heico	68	Precision Castparts	18
BAE Systems	12	Heroux-Devtek	96	Raytheon	6
Ball Aerospace	70	Hexcel	54	Rockwell Collins	25
Boeing	1	Hindustan Aeronautics	38	Rolls-Royce	10
Bombardier	15	Honeywell	11	RUAG	47
CAE	43	IHI	26	Saab	48
Chemring	69	Indra	81	Safran	9
Circor	99	Irkut	46	Senior	75
Cobham	36	Israel Aerospace Industries	30	SKF	83
Crane Aerospace	79	ITP	72	Spirit AeroSystems	21
Curtiss-Wright	78	ITT	89	ST Engineering	52
Cytec	66	JAMCO	84	Teledyne Technologies	41
Daher	60	Kaman Aerospace	82	Terma	98
Dassault Aviation	20	Kawasaki (KHI)	35	Textron	16
Denel	95	Kongsberg	61	Thales	22
Diehl Aerosystems	63	Korea Aerospace Industries	49	TransDigm	45
Doncasters	93	L-3 Communications	13	Triumph Group	28
Ducommun	92	Latecoere	74	Ultra Electronics	62
Eaton	51	Liebherr	53	United Technologies (UTC)	4
Elbit Systems	40	LISI	71	Woodward	65
Elettronica	90	LMI Aerospace	87	Zodiac	23
Embraer	19	Lockheed Martin	3		
Esterline	44	Magellan Aerospace	76		

SOURCE: PwC

DATA SOURCE

The *Flight International* Aerospace Top 100 was compiled by aerospace experts at PricewaterhouseCoopers LLP ("PwC"). The information used in preparing this report has been obtained solely from company Annual Reports, public filings and other publicly available information. PwC has not sought to establish the reliability of this information and has not verified such information.

Accordingly, no representation or warranty (whether express or implied) is given by PwC as to the accuracy of this information.

COMPANY/DIVISIONS

The top line of the financial figures refers to consolidated results for the overall group, including non-aerospace businesses. The divisional figures are for

those businesses that are fully or largely concerned with aerospace. Groups have been ranked by their aerospace sales in financial year ending 2013/2014, calculated from those divisions that operate primarily in the industry. Sectors involved with aircraft, aeroengines, avionics, missiles, space and aerostructures are largely straightforward, but telecommunications, network centric and C4I systems and some overhaul operations are included only where these are largely concerned with aerospace activities. Satellite services have been excluded wherever possible, as have companies and divisions that derive more than 50% of their revenues from services such as leasing.

Where acquisitions were made within

the accounting period, pro-forma accounts have been used for the 12-month consolidated performance.

Joint ventures have been included in the financials. Intersegment sales have been excluded from operating results and profits for divisions where possible. When not possible, divisional results have been presented inclusive of inter division sales, resulting in aerospace revenues greater than group sales.

EXCHANGE RATES

An average exchange rate for the period 1 January 2013 to 31 December 2013 has been used for all non-US companies, regardless of fiscal year definitions. The percentage changes in financial figures are given in local currency terms to avoid unnecessary distortions.

COUNTRY

Companies have been listed by country of headquarters or incorporation.

OPERATING RESULTS

Generally, the profit (or loss) before interest, tax and exceptional items and after deduction of depreciation. The measure is a generally accepted guide to a business's operational performance. Discontinued or discontinuing operations are included where they fall in fiscal year 2012 for that business.

ROCE

Return on Capital Employed (ROCE) is calculated as earnings before interest expense, taxes, unusual items and minority interests divided by year-end total assets less year-end non-interest bearing current liabilities.

COST CONTAINMENT PWC DEAN GILMORE & JONATHAN TATE

TURNING CUTS INTO A NEW OPERATING MODEL

IT IS easy to see why reducing costs is a major priority for defence companies. The highest spenders in the West – the USA, UK, France and Germany – will see their budgets cut by an average of 11.5% between 2011 and 2015. Meanwhile, the emerging economies such as India and Saudi Arabia expect to see an average increase of 43% over the same period.

As a result, defence companies must balance the need to operate more cost effectively within their existing markets, whilst focusing on growth within the emerging regions. And, as market dynamics continue to change rapidly, companies also face more challenging customers, a shift towards availability-based contracting methods and the demand for more integrated bundles of platforms and services.

COST REDUCTION

Against this background, defence companies have maintained their margins by reviewing their operational costs. Drawing on decades of experience in – often aggressive – cost management, many have adopted approaches which look

like “salami-slicing”. Typically, through squeezing suppliers and taking out headcount, this approach achieves year-on-year budget reductions of 5-10%.

Over the past five years such strategies have delivered substantial savings across the industry. A portfolio of global defence companies have seen average revenues rise by just 0.8% between 2010 and 2012, but have seen cost of

Across the board cuts can only go so far before they begin to impact delivery

goods sold reduce by 3.6% over the same period. However, across the board budget reductions can only go so far before they begin to impact delivery – and experience shows that the resulting reductions are often unsustainable.

Perhaps most importantly, “salami-slicing” does not deal with the new business environment. Indeed, by reducing “buffers” that enable companies to act flexibly, budget-

based cost-cutting can reduce their ability to respond to evolving customer demands – at the very time when those demands are changing more rapidly than ever.

SAVINGS

With traditional cost-plus structures no longer fit for purpose, what is needed is a more holistic approach focused on creating the right operating model to ensure both quality of delivery and lowest costs.

The first step towards such an approach is to take a different view of costs. Companies have historically tended to regard costs from a functional or programmes perspective because that is where the budgets were held, so they might seek 5% savings from the IT function or a specific platform programme, for example.

While this approach can still play a role, companies need to look further. This means moving to a strategy that simultaneously targets three potential sources of savings:

Top-down initiatives – reviewing and optimising the operating model, focusing on areas such as the interactions with the customer and

the interfaces with suppliers and other partners.

Alignment initiatives – examining the relationships and linkages between functions and platforms/programmes to remove duplication and friction.

Bottom-up initiatives – pursuing traditional approaches such as activity-based costing, which can still help drive efficiency in specific functions and programmes.

STRATEGY

There are a number of questions to consider in supporting this type of strategy. Companies that answer these questions successfully will position themselves to achieve savings far beyond the traditional 5-10% – while also meeting customers’ needs more effectively in a changing world. In fact, through strategies designed and implemented by PwC, our clients are achieving savings as high as 20%.

■ Managing on-going change across your business:

Are you ready for dramatic shifts in workload? How will you continue to reduce costs without damaging capability? Are your local and international structures plus cost base sufficiently flexible and agile?

■ Develop a challenging cost reduction target:

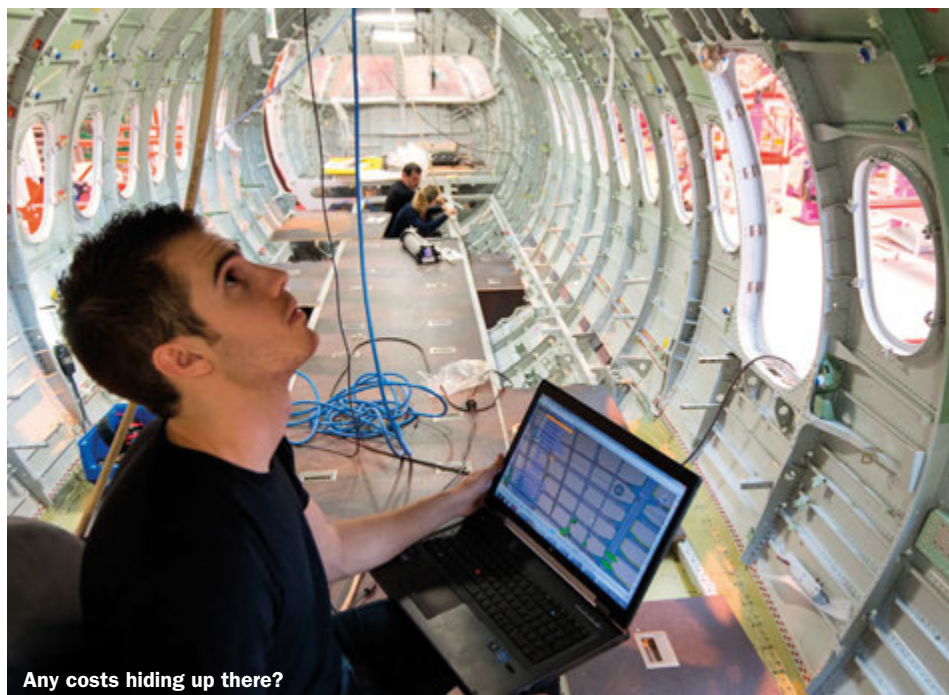
How specific – and achievable – is your cost reduction plan? Does it include widespread structural change? If not, should it? How much support and buy-in is there across the business?

■ Implement planned changes:

Can you execute a cost containment programme using proven tools and techniques? How will you identify all your cost reduction options? Do you have a clear view of the implementation costs and resulting benefits? Will you need to implement a wider change programme to achieve your targets? ■

For more information email Dean Gilmore, PwC UK aerospace and defence leader, at dean.gilmore@uk.pwc.com

Read more on aerospace industry strategy at flightglobal.com/PwCa&d



Any costs hiding up there?

Dineshwar Awasthi