

**IHS Automotive**

Supplying the OEMs

**SupplierBusiness**

# Supplying Honda

2014 edition

[supplierbusiness.com](http://supplierbusiness.com)



# Contents

<b>Overview .....</b>	<b>7</b>
<b>Global market overview .....</b>	<b>7</b>
<b>Financial data .....</b>	<b>7</b>
<b>Honda Motor financial overview .....</b>	<b>8</b>
<b>Product strategy .....</b>	<b>9</b>
<b>Strategy review .....</b>	<b>9</b>
<b>Major model programmes .....</b>	<b>11</b>
CR-V .....	11
Civic .....	14
Accord .....	16
Fit/Jazz .....	21
N BOX .....	24
Odyssey .....	25
City .....	27
Pilot .....	29
N ONE .....	31
<b>Vehicle platforms .....</b>	<b>33</b>
<b>Platform strategy .....</b>	<b>33</b>
<b>Major platforms .....</b>	<b>34</b>
1. C-5 - (inc. Civic, CR-V, Step Wagon, Stream, Crider, Crossroad, Jade, Acura ILX and RDX) .....	35
2. GSP - (inc. Fit/Jazz, City, Brio, Mobilio, and Insight and CR-Z hybrids) .....	35
3. D-5 - (inc. Accord, Crosstour, Odyssey, Spirior, Acura RLX, TLX) .....	37
4. N - (N BOX, N ONE, N WGN, A-Sports) .....	38
5. BM/MD - (inc. Odyssey, Pilot, Ridgeline, Acura MDX, ZDX) .....	39
6. GSP(2) - (Fit/Jazz, Vezel/HR-V, City, Brio, Freed, Mobilio) .....	40
7. BM/MD(2) - (inc. Odyssey, Pilot, Ridgeline, Acura MDX) .....	41
8. 2YA - (inc. Acty Truck, Vamos) .....	42
9. 2SA - (inc. Life) .....	43
10. NE/IN/CO/UA - (inc. Elysion) .....	43
<b>Component sharing .....</b>	<b>44</b>
<b>Volume planning .....</b>	<b>45</b>
<b>Production strategy .....</b>	<b>46</b>
<b>Production strategy overview .....</b>	<b>46</b>
<b>Manufacturing network .....</b>	<b>47</b>
Japan .....	49
United States .....	50
China .....	52
Mexico .....	54
India .....	55
United Kingdom .....	55

## IHS™ Automotive SupplierBusiness

Principal Author: Julian Buckley

### COPYRIGHT NOTICE AND LEGAL DISCLAIMER

© 2014 IHS. No portion of this report may be reproduced, reused, or otherwise distributed in any form without prior written consent, with the exception of any internal client distribution as may be permitted in the license agreement between client and IHS. Content reproduced or redistributed with IHS permission must display IHS legal notices and attributions of authorship. The information contained herein is from sources considered reliable but its accuracy and completeness are not warranted, nor are the opinions and analyses which are based upon it, and to the extent permitted by law, IHS shall not be liable for any errors or omissions or any loss, damage or expense incurred by reliance on information or any statement contained herein. For more information, please contact IHS at customercare@ihs.com, +1 800 IHS CARE (from North American locations), or +44 (0) 1344 328 300 (from outside North America). All products, company names or other marks appearing in this publication are the trademarks and property of IHS or their respective owners.



Canada .....	57
Brazil & Argentina.....	57
Thailand .....	58
<b>Internal supply network .....</b>	<b>59</b>
<b>Modularisation strategy.....</b>	<b>62</b>
<b>Supplier parks .....</b>	<b>62</b>
<b>Cluster of reference .....</b>	<b>63</b>
<b>Strategies for manufacturing efficiency .....</b>	<b>64</b>
<b>Purchasing strategy .....</b>	<b>65</b>
Purchasing strategy overview.....	65
Levels of vertical integration and outsourcing .....	66
Purchasing organisation.....	66
Purchasing offices.....	67
Key purchasing personnel.....	68
Purchasing budget .....	68
<b>Supplier selection.....</b>	<b>69</b>
Supply base development .....	69
Major and strategic suppliers .....	69
Supplier evaluation criteria .....	70
Working with Honda Motor.....	71
<b>Global sourcing .....</b>	<b>72</b>
Policy and plans.....	72
APAC .....	72
NAFTA .....	73
EMEA.....	73
LATAM .....	74
<b>Pricing policy.....</b>	<b>76</b>
Cost reduction strategies.....	76
Payment process and terms .....	76
Raw material price management.....	77
<b>Quality management .....</b>	<b>79</b>
Quality level .....	79
Quality management systems.....	80
Integration into product development .....	81
Management of suppliers and sub-suppliers .....	81
Supplier awards .....	82
<b>Technology .....</b>	<b>84</b>
Technological positioning.....	84
Areas of focus .....	85
R&D spending.....	87
R&D organisation.....	87
Access to supplier technology.....	88
Approach to alternative fuels, electrification and fuel cells .....	89
Special vehicle development.....	90
<b>Interviews .....</b>	<b>92</b>
Rahul Misra, director of connected services at Aha, part of the Technical Sales division at HARMAN,.....	92

<b>OEM-supplier relation survey results</b>	<b>97</b>
Introduction to the SuRe Index	97
Methodology	97
Honda performance evaluation	97
Executive summary	98
Profit potential	99
OEM level	99
Organization	101
OEM level	101
Trust	102
OEM level	102
Pursuit of excellence	103
OEM level	103
Outlook	104
OEM level	104
<b>SWOT analysis</b>	<b>106</b>
<b>Global footprint</b>	<b>107</b>
<b>Forward model program</b>	<b>108</b>
<b>Major suppliers</b>	<b>113</b>
Acura MDX 2013 (Lincoln, United States)	113
Honda Accord 2012 (Marysville, United States)	115
Honda City 2014 (Lahore, Pakistan)	117
Honda Fit 2013 (Yorii, Japan)	118
Honda Vezel 2015 (Celaya, Mexico)	118
Acura RL 2012 (Sayama, Japan)	119

## Figures

Figure 1: Global light vehicle sales, 2007–2013	7
Figure 2: Alphabet soup - the new 2015 TLX saloon features one of many alpha-numerical names in the Acura line-up	10
Figure 3: The first Honda CR-V featured a rear tailgate hinged on the side	12
Figure 4: Honda released the latest fourth-generation CR-V in late 2011	13
Figure 5: Honda introduced the first Civic in 1972	14
Figure 6: The Honda Civic Type-R Concept was shown at various global motor shows over 2014	16
Figure 7: A first-generation Honda Accord from 1978 - the wing mirrors denote a Japanese-market version	17
Figure 8: The latest Accord range includes a coupé, despite Toyota cutting the competing Solara due to poor sales	20
Figure 9: The original Honda Fit was introduced in 2001	21
Figure 10: Honda launched the third-gen Fit in 2013, although European rollout will not be until 2015	23
Figure 11: The Honda Fit Shuttle is only available in Japan	23
Figure 12: The N Box is currently one of the most popular kei cars in Japan	24
Figure 13: The S660 concept could serve as a preview for the successor to the Honda Beat	25
Figure 14: The United States remains the major market for the latest Honda Odyssey minivan	26
Figure 15: The first Honda City was a hatchback - the later versions switched to a saloon bodystyle	28
Figure 16: The biggest market for the latest Honda City is likely to be Thailand	29
Figure 17: The Honda Pilot serves as the basis for the Ridgeline pickup	30
Figure 18: The Honda N ONE drops the rear sliding door of the related N BOX	31
Figure 19: Front engine bay reinforcements for the GSP platform used in production of the Honda CR-Z	36

Figure 20: Rear deck GSP reinforcements on the Honda CR-Z.....	36
Figure 21: Review of key steel grades across GSP platform used for production of Honda CR-Z coupé .....	37
Figure 22: Diagram of roof section joining method in D-5 Honda Accord .....	38
Figure 23: Body-in-white of the Honda N BOX.....	39
Figure 24: A revised version of the ACE system features on the all-new Honda Vezel.....	40
Figure 25: The front superstructure of the latest Acura MDX has been strengthened to return improved crash test results .....	42
Figure 26: The Honda Acty offers a range of chassis cab options, including pickup, tipper and cube box.....	43
Figure 27: Areas of high-tensile material usage on the Honda Elysium minivan.....	44
Figure 28: Honda Annual global production 2000-2017 .....	45
Figure 29: Blue-tinted lights and trim identifies 2014 Honda Accord Hybrid .....	46
Figure 30: The first Accord to roll off the Honda Marysville line is now on display at the Henry Ford Museum in Dearborn, Michigan.....	51
Figure 31: Launched in 2011, the Li Nan S1 is produced in China by the Guangqi Honda joint-venture .....	53
Figure 32: The Civic Tourer was introduced in 2013.....	56
Figure 33: Honda's process for reusing extracted rare earth metal in motors .....	77
Figure 34: Market quality enhancement system.....	80
Figure 35: The Honda RA107 at the 2007 Bologna motor show.....	84
Figure 36: The three-cylinder VTEC direct injection petrol engine is new to the Earth Dreams range .....	86
Figure 37: Honda's Global R&D centres.....	88
Figure 38: Honda FCEV Concept at the 2013 Los Angeles motor show .....	90
Figure 39: The Honda MC-β could enter production 2017.....	91
Figure 40: Aha smartphone application.....	93
Figure 41: SuRe Index 2013 - Top of the Ranking.....	98
Figure 42: SuRe Index 2013 - Middle of the Ranking.....	99
Figure 43: 2012–2013 Profit potential results on scale.....	100
Figure 44: 2012–2013 Organisation results on scale .....	101
Figure 45: 2012–2013 Trust results on scale.....	102
Figure 46: 2012–2013 Pursuit of excellence results on scale .....	103
Figure 47: 2012–2013 Outlook results on scale .....	104
Figure 48: Honda - Global assembly plant locations .....	107
Figure 49: Honda forward model program .....	109

## Tables

Table 1: Key financial performance values for Honda Motor .....	7
Table 2: North American annual sales, Honda Insight and Toyota Prius, 2009–2015 .....	9
Table 3: Honda Top 10 best-selling global models (by Sales nameplate) 2008-2013-2018.....	11
Table 4: Honda CR-V global sales forecast (by Region) 2008–2017 .....	13
Table 5: Honda Crosstour and Toyota Venza sales comparison forecast 2010-2023 (by Region).....	19
Table 6: Honda Accord and Toyota Camry sales comparison forecast 2008-2017 (by Region).....	20
Table 7: Honda Pilot and Nissan X-Trail sales comparison forecast 2008–2018.....	30
Table 8: Honda Global platform usage 2003 - 2018 (by annual production volumes) .....	33
Table 9: Honda and Acura Global platform usage 2003 - 2018 (by annual production volumes) .....	34
Table 10: Honda Accord Hybrid production forecast (by Production Plant and Country) 2013–2017.....	47
Table 11: Honda global assembly facilities (by Region and Plant) 2013–2017 .....	47
Table 12: Honda Vehicle Production (Japan) 2000–2017.....	50
Table 13: Greater China vehicle production (by Manufacturer group, ranked by 2013 data) 2013–2016 .....	54
Table 14: Thailand Annual vehicle sales (by Sales brand) 2013 and 2018 .....	59
Table 15: Honda Internal Supplier List 2014 .....	60
Table 16: SWOT Analysis – Honda.....	106
Table 17: Acura MDX 2013 (Lincoln, United States) suppliers and component data.....	113
Table 18: Honda Accord 2012 (Marysville, United States) suppliers and component data .....	115

**Table 19: Honda City 2014 (Lahore, Pakistan) suppliers and component data.....117**  
**Table 20: Honda Fit 2013 (Yorii, Japan) suppliers and component data .....118**  
**Table 21: Honda Vezel 2015 (Celaya, Mexico) suppliers and component data.....118**  
**Table 22: Acura RL 2012 (Sayama, Japan) suppliers and component data.....119**

SAMPLE

But what Honda really needs to compete successfully in Brazil is more product choice, which was one of the primary motivating factors behind the announcement in August 2013 covering planned construction of a second in-country plant. This location will be located in Itirapina, also in Sao Paulo state, but a further 70 miles outside Campinas (the state is approximately the same size as Great Britain). When the plant comes online in 2015, it will have the same 120,000-unit maximum capacity as the Sumare facility, but with a suite of recent technologies, such as the efficient BIW line and two-coat, three-bake paintshop featured at the new facility in Celaya, Mexico.

The new facility will start with production of the Fit and the Vezel compact SUV in 2015, but this line-up is expected to be augmented with the addition of the Brio hatchback in 2017. As yet it is unknown whether the Amaze saloon derivative of this model will also join Brazilian production, although with the popularity of small cars in the country it would be an opportunity ignored if it was not at some point added to the model mix. Although related production costs, such as energy, are comparatively high in Brazil and other South American countries, it can be expected that a total capacity of 250,000 units will help to improve Honda's local economy of scale as the well-developed supply base in Sao Paulo starts making deliveries to both plants.

Honda further operates a plant in Argentina, located outside Buenos Aires. Construction started in 2009 after the project was suspended due to the declining local economy, but in 2011 Honda Motor Argentina celebrated start of production at the new facility. The first model to enter production was the Honda City. Although the Campanas plant only has a single assembly line and annual capacity is just 30,000 units, the USD250 million factory has a full complement of manufacturing operations, including press, BIW, paint and assembly, plus plastics and engine assembly.

## Thailand

Although local production in Thailand started in 1984, the existing Honda plant in Ayutthaya only entered operations in 2000. Located to the north of Bangkok on the Rojana Industrial Park, the plant is on the opposite side of the city from the Rayong complex which serves as the local manufacturing base for General Motors, Ford, Mazda and Izuzu and is home to much of the country's steel industry. The plant produces a series of models over two lines: Ayutthaya I has delivered the City and Fit (locally known as Jazz) since 2000 and 2004 respectively, while the Brio and Amaze were added in 2011 and 2012; Ayutthaya II produces the Civic, CR-V and small numbers of the Accord.

Although Honda has a series of plants in surrounding south-east Asian countries, including Vietnam, the Philippines, Malaysia and Indonesia, much of this output is a mix of CBU and CKD production. In Thailand, the Ayutthaya complex is a full production facility, which in addition to delivering finished vehicles also ships vehicle kits to regional CKD assembly locations. This range of activities is supported by the capacity to deliver up to 300,000 units per annum, although the average local parts percentage is a comparatively low 72%. The Thai facility also delivers individual parts to assembly operations in 56 different countries.

While Honda production in Thailand has recovered well from the flooding in 2011 (which primarily affected the area north of Bangkok), political unrest in the country has put the brakes on the previously booming local car market. In response to growing finished vehicle inventory, Honda has recently cut output at Ayutthaya to 60% of capacity. Further, the carmaker has announced that it will delay the start of production at a new 120,000-unit plant in Prachin Buri, also located outside Bangkok. Construction of the plant, which was scheduled to start operations in 2015, could be delayed for between six months and one year. The decision to restart the USD530 million project, which will add a third assembly line to national production, will be based on sales and overall market performance.

Local sales across all brands in Thailand had been increasing since 2005, to where in 2012 they exceeded one million units (1.307m) for the first time. This is expected to decline as a result of the national political unrest, to where sales over 2014 are not expected to exceed one million units (984,000); Honda has targeted local sales of 160,000 units for the year, but forecast projections have an approximate total of total 128,000 units.

Thailand is well-positioned as an export hub, and the capital investment made by most global OEMs is designed to deliver the volumes necessary to support exports to other ASEAN countries and even further afield. Yet below the country's stable monarchy, national politics have always been fractious and liable to boil over. If the automotive industry as a whole has taken this into account – Honda retained the flexibility to quickly reduce output by retaining non-contract workers – the

market can be expected to rebound once the leadership issues are resolved, with sales resuming an upwards trend.

**Table 14: Thailand Annual vehicle sales (by Sales brand) 2013 and 2018**

Sales Brand	2013	2018
<b>Toyota</b>	425278	433321
<b>Honda</b>	195418	160630
<b>Isuzu</b>	187841	222918
<b>Nissan</b>	100791	91809
<b>Mitsubishi</b>	100142	124608
<b>Chevrolet</b>	61047	49959
<b>Mazda</b>	56360	58015
<b>Ford</b>	49440	70222
<b>Suzuki</b>	45863	59323
<b>Mercedes-Benz</b>	12716	11585

Source: IHS Automotive

## Internal supply network

Honda sets a priority on using parts and components delivered from the region surrounding a production plant and this pattern is further applied to internal sourcing. This means that those parts sourced within the Honda network that are used for volume vehicle production, predominantly engine parts, driveshafts, transmissions, brake parts and exterior plastics, are made and/or assembled onsite or at a company location in the same region.

This pattern is readily identifiable across the network of 19 Honda vehicle and part production plants in the United States. The Anna plant, which represents a total investment of USD2.0 billion, is the largest single Honda engine plant in the world and a facility that regularly produces almost 1.2 million engines per annum. The plant is located in close proximity to the Marysville and East Liberty assembly lines that together comprise Honda of America Manufacturing (HAM), but engines and parts are also shipped to the Honda plant in Greensburg, Indiana. In addition, the facility also produces driveshafts, camshafts and brake parts to the tune of 2.3 million parts.

The HAM complex is further supported by the USD675 million Russel's Point, Ohio facility, which is dedicated to delivering transmissions for application across both production sites. Officially known as Honda Transmission Manufacturing of America, the site has an annual production capacity of 800,000 transmissions, 328,000 transmission gear sets and 150,000 four-wheel drive systems.

Honda has expanded its internal part supply network as it has extended the national manufacturing footprint. Case in point is the assembly site in Lincoln, Alabama which, with a maximum annual output of 300,000 vehicles, further incorporates a 300,000 unit-per-annum plant producing V6 engines. Honda Precision Parts of Georgia is across the nearby state line in Tallapoosa. With total investment reaching USD230 million, this plant also has the capacity to deliver 300,000 transmissions.

Honda was the first foreign OEM to produce both engines and transmissions in the United States. Since 2002, Honda has maintained a 75% or greater average of locally-sourced parts – a figure which reached 94% in 2013. This is largely related to the internal production of engines and powertrain parts. As the Japanese carmaker has expanded its activities across the US, it has organically augmented capacity as marketshare has grown. This progression has served to entrench the Honda brand in the US marketplace, a key motivator in the buying decision process and the exact opposite of building a 300,000upa plant, look for customers and then deeply discounting product just to move it out of dealer stock.

Outside North America, Honda is looking to support local manufacturing plants with regional supply hubs. An example of this is in India, where the Tapukara plant in Rajasthan will increase production of engine parts and manual transmissions. These parts and components will be shipped to Honda production plants in higher-cost regions as part of a cost-reduction strategy involving sourcing in low-cost regions, while also being applied to vehicles produced in-country for the local market and regional export.