EUROPEAN
BICYCLE
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EBMA proudly defends since 1990 the European Bicycle Industry and Workers, following the example of EBMA Founder and 25 years Chairman Brian Montgomery.

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Pedal-Assist Ebikes:

Comparing EU production and Chinese imports from 2005-2017

2003 Sparta ION

The first pedal-assist prototypes and the production of e-city bikes were developed at Sparta in The Netherlands (Accell Group).

The No. 1 electric bike

Sparta introduced the first model electric bicycle in 1998. Riding on an electric bike enhances the pedaling force of the rider making the bike easier and more comfortable to cycle with. In 2003, the Sparta ION was put on the market, this electric bike was an instant hit! Sparta is the best selling brand in electric bicycles. More than 500,000 consumers choose Sparta. All these people have specific needs from the electric bicycles, Sparta has an extensive collection with an appropriate electric bike for everyone! With the invention of the electric bicycle by Sparta it is always ahead of its competition in terms of design and advances. Sparta introduces each year special innovations. Not just to make a product better, but above all to increase your safety.

Get more info here

2002 Directive 2002/24/EC
The first EU regulation on e-bikes

The status and technical features of the Pedal-Assist Ebikes were confirmed by the EU COM after collaboration with the EU Industry Association **Colibi-Coliped** resulting in the Directive

Article 1 (h) of Directive 2002/24/EC relating to the type-approval of two or three-wheel motor vehicles legislation stipulates that the Directive does not apply to: ‘‘cycles with pedal assistance which are equipped with an auxiliary electric motor having a maximum continuous rated power of 0.25 kW, of which the output is progressively reduced and finally cut off as the vehicle reaches a speed of 25 km/h, or sooner, if the cyclist stops pedalling’’. As a result of this exclusion, member states classify these vehicles as bicycles.

Pedelecs with a maximum continuous rated power of more than 0.25 kW and all E-bikes that can be exclusively propelled by the motor do fall within the scope of Directive 2002/24/EC. In this Directive they are classified as low-performance mopeds, i.e. vehicles with pedals, with an auxiliary engine of power not exceeding 1 kW and a maximum design speed not exceeding 25 km/h. As a result, they have to be type-approved but they are excluded from a number of type-approval requirements as listed in Annex I of Directive 2002/24/EC. The note to Annex I sums up the excluded requirements.

Pedelecs with a motor assisting beyond 25 km/h and E-bikes with a maximum design speed exceeding 25 km/h are classified as conventional mopeds (category L1e) and have to be type-approved accordingly.

http://www.bike-eu.com/laws-regulations/artikel/2010/8/eu-regulations-for-e-bikes-pedelecs-part-1-1018836

E-Bike boom starting in the Netherlands and Northern Germany

Thanks to the EU COM Directive 2002, and the introduction of the Sparta Ion with a hub engine, the Pedal-Assist Ebikes start booming in the Netherlands and in the North of Germany (so where the territory is flat), bringing back cycling to hundreds of thousands of EU citizens.

2005 China starts to export e-city bikes to the EU

	2005
EU Production	9,700
EU Jobs (direct/indirect)	200
Chinese EPAC imports*	5,000
Chinese e-bikes with throttles imports**	35,000

*estimations of EBMA until 2013, from January 2014 data from Chinese costums

**difference between official Eurostat data and estimates of EPACs

In 2005 the PRC starts to export e-city bikes to the EU with a hub engine, and often an out-of-law throttle: the quality is very poor.

The codes for e-bikes in Eurostat have changed over the years:

until 31.12.2011: 87119000 (anything with a small motor and two wheels)

from 1.1.2012: 87119010 (EPACs) and 87119090 (other vehicles with auxiliary motor)

from 1.1.2017: 87116010 (EPACs) and 97119090 (other vehicles with auxiliary motor)

2007-2010 Chinese imports increase, so do quality and design

Hub engine models from China increase in volumes and also improve in quality & design. In any case the hub engine is always giving problems of overheating, if the ebike is not used in a flat area and must be ridden in hills/mountains. The volumes of Sparta and other Pedal-Assist Ebikes Producers in The Netherlands and Germany keep increasing, but the dumping from China starts to cause Industry Injury.

	2007	2008	2009	2010
EU Production	80,000	97,000	194,000	315,000
EU Jobs (direct/indirect)	692	2,000	4,000	6,500
Chinese EPAC imports*	40,000	60,000	100,000	120,000
Chinese e-bikes with throttles imports**	98,000	120,000	122,000	143,000
*estimations of EBMA until 2013, from January 2014 data from Chinese costums				
**difference between official Eurostat data and estimates of EPACs				

Stella

2010 First mid-motor by Bosch

In 2010 Bosch introduces the first mid-motor at the EuroBike, it becomes a benchmark in technology advancement of Pedal Assist Ebikes. At the same time Hercules and other German Producers introduce the first e-city bikes and e-trekking with a central engine, and Haibike (Accell Group) introduces the very first e-mtb, a great success worldwide.

2011-2015 Booming market with Bosch central engine

Volumes of Pedal Assist Ebikes with Bosch central engine boom bringing up the EU Market

	2011	2012	2013	2014	2015
EU Production	436,000	540,000	733,000	955,000	1,069,000
EU Jobs (direct/indirect)	9,000	11,148	15,124	19,695	22,061
Chinese EPAC imports*	160,000	180,000	200,000	219,133	311,718
Chinese e-bikes with throttles imports**	106,000	116,602	143,267		

*estimations of EBMA until 2013, from January 2014 data from Chinese costums

**difference between official Eurostat data and estimates of EPACs

2015 First PRC's central engine by Bafang

In 2015 at the EuroBike, PRC's Bafang, thanks to governmental subsidies, quickly develops and introduces central engines which are a de facto copy of Bosch.

2016-2018 Increase in Chinese exports due to own motors

The central engine supplied by Bafang and other ebike engine/system vendors in China are a big boost to the exports of PRC's Pedal Assist Ebikes in 2016 and 2017: thanks to the uncountable governmental subsidies, big exporters like Fushida, Xinry, Aima, Yadea, Xinri, Lvyuan, Golden Wheel offer cheaper and cheaper central engine ebikes, causing already very big injury and the bankruptcy of Mifa, with 1200 direct jobs lost: especially the e-mtb is a growing segment, in which PRC's exporters are concentrating their efforts (lowest quote: 460 $ FOB).

The central engine technology is helping the PRC exporters to have less quality problems, as central engines are a far better technology than hub engines (like the first airplanes if compared to jumbo jets), which assures much less risk of heating and therefore of collapsing one of the 3 main parts of the system: engine, lithium battery and computer controller. Their design and quality have dramatically improved, as it is much easier to copy Bosch & EU central engines than R&D developing them from zero.

	2016	Forecast 2017	Forecast 2018
EU Production	1,164,000	1,000,000	900,000
EU Jobs (direct/indirect)	24,000	20,619	18,557
Chinese EPAC imports*	433,642	900,000	1,300,000

*estimations of EBMA until 2013, from January 2014 data from Chinese costums

2017 New EPACs central engine made in the EU

Lapierre Carbon Overvolt

Haibike

KTM

EuroBike 2017 New MY18 EPACs from China with central engine

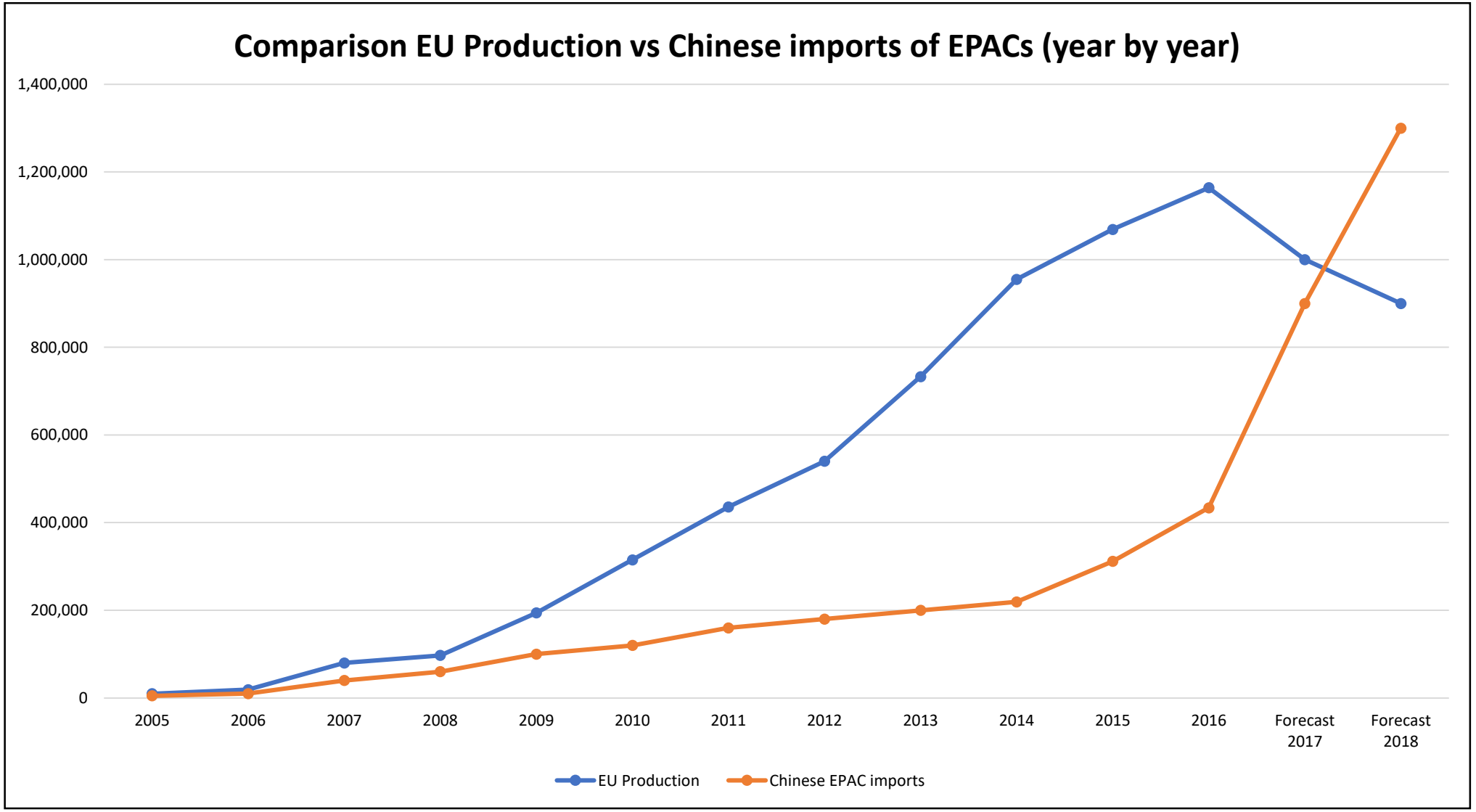
Overview 2005-2018

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Forecast 2017	Forecast 2018
EU Production	9,700	19,012	80,000	97,000	194,000	315,000	436,000	540,000	733,000	955,000	1,069,000	1,164,000	1,000,000	900,000
EU Jobs (direct/indirect)	200	392	692	2,000	4,000	6,500	9,000	11,148	15,124	19,695	22,061	24,000	20,619	18,557
Chinese EPAC imports*	5,000	10,000	40,000	60,000	100,000	120,000	160,000	180,000	200,000	219,133	311,718	433,642	900,000	1,300,000
Chinese e-bikes with throttles imports**	35,000	68,000	98,000	120,000	122,000	143,000	106,000	116,602	143,267					

*estimations of EBMA until 2013, from January 2014 data from Chinese costums

**difference between official Eurostat data and estimates of EPACs

Overview 2005-2018



Overcapacities of EPACs 2005-2018

E-BIKES	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Forecast 2016	Forecast 2017	Forecast 2018	Forecast 2019	Forecast 2020
Production CHN	15,000,000	19,000,000	21,000,000	26,000,000	27,000,000	28,000,000	31,000,000	35,000,000	37,000,000	35,500,000	34,500,000	31,000,000	31,000,000	33,000,000	35,000,000	36,000,000
Consumption CHN	14,000,000	18,000,000	20,000,000	25,000,000	25,800,000	25,900,000	28,000,000	31,500,000	33,000,000	32,000,000	31,000,000	27,000,000	26,000,000	25,000,000	28,000,000	30,000,000
Capacity CHN	20,000,000	22,000,000	25,000,000	28,000,000	32,000,000	35,000,000	38,000,000	40,000,000	45,000,000	48,000,000	52,000,000	55,000,000	55,000,000	57,000,000	64,000,000	68,000,000
Total World Consumption	15,000,000	19,000,000	21,000,000	26,500,000	27,500,000	27,500,000	32,000,000	37,000,000	36,000,000	36,000,000	35,000,000	31,000,000	31,000,000	32,000,000	35,000,000	38,000,000
Capacity CHN over total World Consumption	133%	116%	119%	106%	116%	127%	119%	108%	125%	133%	147%	165%	167%	168%	168%	170%
Production EU	10,000	19,600	35,000	100,000	200,000	325,000	450,000	557,000	755,000	985,000	1,100,000	1,200,000	1,400,000	2,000,000	2,300,000	2,900,000
Consumption EU	50,000	98,000	173,000	279,000	422,000	588,000	716,000	854,000	1,100,000	1,325,000	1,650,000	2,000,000	2,500,000	2,800,000	3,300,000	3,600,000
Overcapacity CHN	5,000,000	3,000,000	4,000,000	2,000,000	5,000,000	7,000,000	7,000,000	5,000,000	8,000,000	12,500,000	17,500,000	24,000,000	24,000,000	24,000,000	29,000,000	32,000,000
Utilisation rates CHN	75%	86%	84%	93%	84%	80%	82%	88%	82%	74%	69%	63%	65%	70%	70%	74%
Available for export CHN	1,000,000	1,000,000	1,000,000	1,000,000	1,200,000	2,100,000	3,000,000	3,500,000	4,000,000	3,500,000	3,500,000	4,000,000	7,000,000	10,000,000	12,000,000	17,000,000
Imports EU from CHN	40,000	78,400	138,000	179,000	222,000	263,000	266,000	297,000	345,000	340,000	550,000	800,000				
Exports EU to CHN	12	12	17	15	20	25	20	30	1,576	159	15					
Net Imports EU from CHN	40,000	78,000	138,400	179,000	222,000	263,000	266,000	297,000	345,000	340,000	550,000	800,000				
Net Exports EU to CHN	12	12	17	15	20	25	20	30	1,576	159	15					
Profitability EU	0%	0.2%	0.3%	0.5%	0.7%	1.0%	1.5%	2.0%	2.5%	3.0%	2.8%	2.0%				
Direct/Indirect Jobs EU	200	390	690	2,000	4,000	6,500	9,000	11,000	15,000	19,700	22,000	24,000	28,000	35,000	40,000	45,000

***If anti-dumping measures are kept and bicycles, e-bikes and components are kept out of the EGA list, allowing more re-shoring of components production into the EU's Bike Valleys.**

****EPAC imports (87119010) code only since 2012, estimation made for the previous years.**

***** 'The total industry economic aggregate will be stably improved. During the "thirteenth five-year" period, the revenue from main businesses of the above-scale enterprises in the whole industry will achieve the annual average growth rate 6%, and exceed RMB 200 billion by 2020. The export scale of bicycles and spare parts will keep stable and the export of electric bicycles will be dramatically increased' - 13th 5 year Plan of the Chinese Communist Party.**

****** Sources: Bike Europe, Japan Press, Eurostat, China Bicycle Association, Conebi, Bicycle Retailer**