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## Volkswagen

# How VW's cheating on emissions was exposed

Carmaker finalises US criminal settlement that marks major milestone in scandal



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JANUARY 11, 2017 by: **Patrick McGee** in Frankfurt

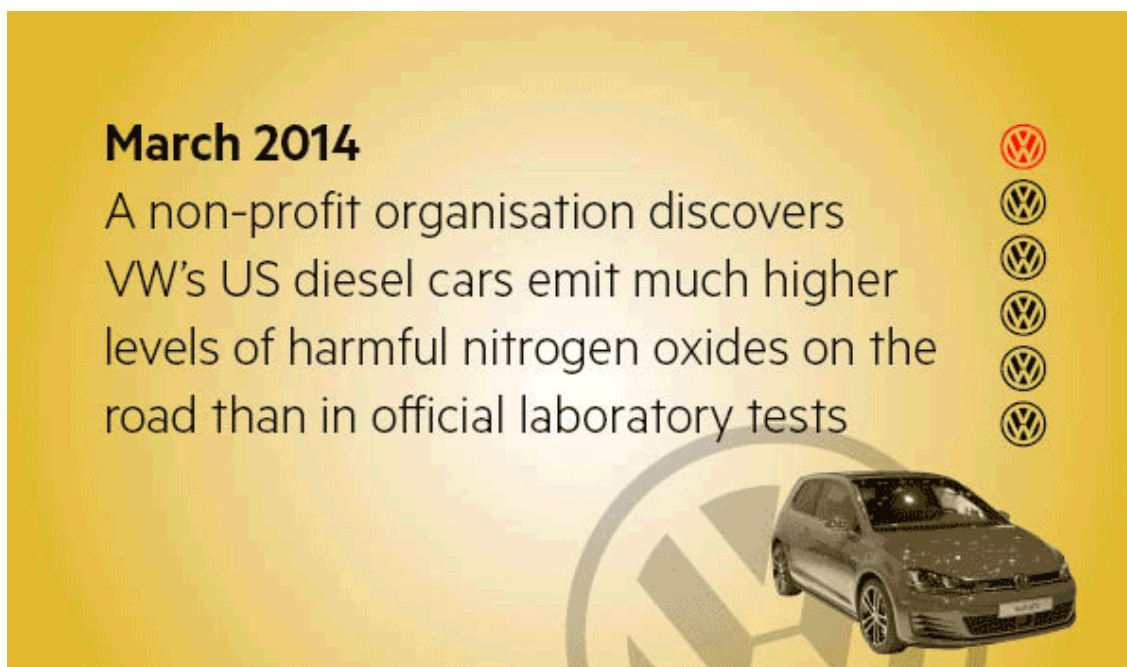
US regulators and prosecutors have spearheaded efforts to uncover and then punish Volkswagen for its diesel emissions scandal — the latest example being the German carmaker's \$4.3bn criminal settlement on Wednesday with the Department of Justice.

But it was a little known group of environmentalists who first pinpointed VW's fraud by asking a simple question: why are diesel cars in the US supposedly much less polluting than those in Europe?

In late 2012, John German, a senior fellow at the International Council on Clean Transportation, a non-profit organisation, thought he had the answer. Having spent 13 years working for the Washington-based Environmental Protection Agency, Mr German knew how strict the regulator's compliance and enforcement programmes were. He figured that meant carmakers had been forced to make diesel cars "clean".

“Our goal was to test the diesels in the US, prove that diesels could be clean, take the data back to Europe and say, ‘Hey, they can do this in the US, why can’t you do this in Europe?’” he told the Financial Times after VW said late on Tuesday that it was in “advanced talks” to [finalise a settlement](http://next.ft.com/content/d998b804-d81a-11e6-944b-e7eb37a6aa8e) (<http://next.ft.com/content/d998b804-d81a-11e6-944b-e7eb37a6aa8e>) with the DoJ.

But problems with Mr German’s theory became apparent as soon as the ICCT began scrutinising VW’s US diesel cars in 2013.



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Mr German’s tests of these vehicles on the road were showing emissions of harmful nitrogen oxide emissions at up to 35 times permitted levels. West Virginia University, which sponsored the ICCT study, kept recalibrating its equipment as if it were faulty. When that did not work, it suspected the VW diesel cars under review must be malfunctioning — and yet, curiously, they passed emissions tests in the laboratory.

It soon became clear to Mr German what the problem was: “It had to be a defeat device,” he said, referring to the illegal software used by VW in its diesel cars to recognise when they were undergoing official laboratory tests, and to thereafter enter low-emission mode. “There was no other explanation.”

However, Mr German felt he could not say anything publicly. “The words defeat device do not pass your lips when you’re dealing with a multibillion-dollar company,” he said. “It’s just way too dangerous. So I just kept my mouth shut.”

The ICCT released its study findings in March 2014. It did not mention illegal software or name what car models were tested, but the ICCT sent copies to VW and the EPA. Mr German said he felt certain the EPA would soon uncover the defeat device.

## Key moments in VW emissions scandal

Share price (€)



Source: Thomson Reuters Datastream

FT

1. *Sep 18 2015* [US regulator reveals VW emissions cheating \(http://next.ft.com/content/5e0b8bc-c-5e21-11e5-9846-de406ccb37f2\)](http://next.ft.com/content/5e0b8bc-c-5e21-11e5-9846-de406ccb37f2)
2. *Sep 23 2015* [Chief executive Martin Winterkorn resigns \(http://next.ft.com/content/d228886-2-61d1-11e5-97e9-7f0bf5e7177b\)](http://next.ft.com/content/d228886-2-61d1-11e5-97e9-7f0bf5e7177b)
3. *Apr 22 2016* [VW reports its largest annual loss \(http://next.ft.com/content/c8c5f6f4-08a4-11e6-b6d3-746f8e9cdd33\)](http://next.ft.com/content/c8c5f6f4-08a4-11e6-b6d3-746f8e9cdd33)
4. *Jun 28 2016* [VW agrees to pay up to \\$15.3bn in US civil settlement \(http://next.ft.com/content/956928ba-3d49-11e6-9f2c-36b487ebd80a\)](http://next.ft.com/content/956928ba-3d49-11e6-9f2c-36b487ebd80a)
5. *Jan 10 2017* [VW close to \\$4.3bn US criminal settlement \(http://next.ft.com/content/f2460c7c-d729-11e6-944b-e7eb37a6aa8e\)](http://next.ft.com/content/f2460c7c-d729-11e6-944b-e7eb37a6aa8e)

But the discovery took more than a year, as VW engineers and executives frustrated US regulators' attempts to understand the nature of the irregularities, according to a court document outlining criminal charges against one of the company's engineers. For months VW "intentionally made . . . false and fraudulent statements" to make the discrepancies between cars' emissions in

the laboratory and on the road appear as if they were “innocent mechanical and technological problems”, said the document, which was released in September.

[Oliver Schmidt \(http://next.ft.com/content/04aa04aa-d648-11e6-944b-e7eb37a6aa8e\)](http://next.ft.com/content/04aa04aa-d648-11e6-944b-e7eb37a6aa8e), then head of VW's US compliance team, learnt of the ICCT study by April 2014. “It should first be decided whether we are honest. If we are not honest, everything stays as it is,” he is said to have written to a colleague, according to another court document alleging wrongdoing by Mr Schmidt, which was released on Monday, shortly after his arrest.

The California Air Resources Board and the EPA continued testing VW's diesel cars with growing sophistication in their laboratories, tricking the vehicles' computers into thinking they were on the road, and setting off a panic among the community of company employees aware of the fraud.

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### *Latest coverage of the VW scandal*

- Inside Business: [Governance remains VW's Achilles heel \(http://next.ft.com/content/2eb72594-d7e6-11e6-944b-e7eb37a6aa8e\)](http://next.ft.com/content/2eb72594-d7e6-11e6-944b-e7eb37a6aa8e)
- FT View: [The next Volkswagen scandal can be avoided \(http://next.ft.com/content/852cff74-d814-11e6-944b-e7eb37a6aa8e\)](http://next.ft.com/content/852cff74-d814-11e6-944b-e7eb37a6aa8e)
- Lex: [Porsche tailgating \(http://next.ft.com/content/4e70fea4-d80f-11e6-944b-e7eb37a6aa8e\)](http://next.ft.com/content/4e70fea4-d80f-11e6-944b-e7eb37a6aa8e)

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But US regulators only learnt for certain that VW was cheating the laboratory tests in August 2015, when an employee “disclosed, in direct contravention of instructions from his management”, that certain cars could detect when they were being tested in the laboratory and enter low-emissions mode, said the court document about Mr Schmidt.

VW officially acknowledged the illegal software to the CARB and the EPA on September 3 that year, but made no statement to investors or the public.

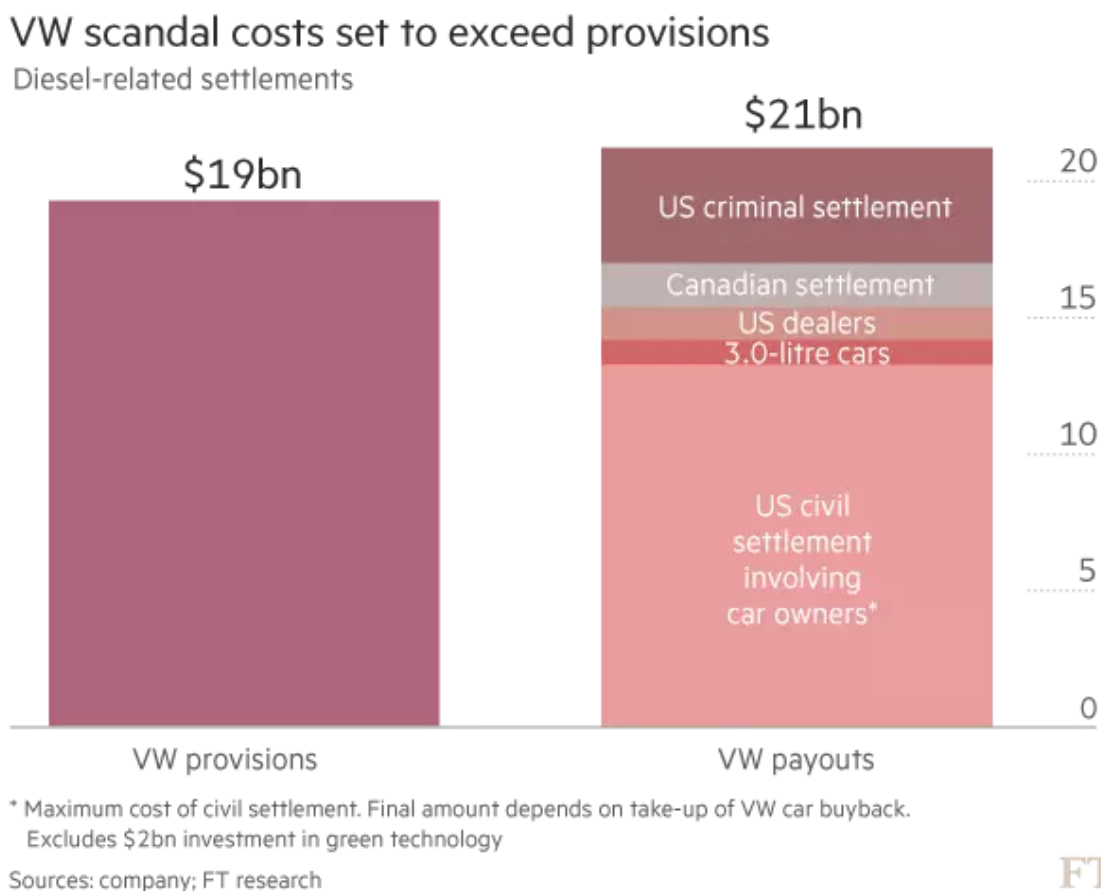
Instead, the EPA revealed VW's cheating on September 18. Within days, VW admitted it had installed the software in up to 11m cars worldwide, beginning in 2008. Chief executive [Martin Winterkorn \(http://next.ft.com/content/d2288862-61d1-11e5-97e9-7f0bf5e7177b\)](http://next.ft.com/content/d2288862-61d1-11e5-97e9-7f0bf5e7177b) resigned but denied any wrongdoing.

VW soon admitted that its fraud dated back to 2006, when the company adopted an aggressive strategy to boost its small US sales. The goal had been to increase its market share by marketing

“clean diesel” cars.

Even now, nearly 16 months after the disclosure of VW's illegal software, many questions remain unanswered. Notably, it is still unclear who authorised the cheating, or how high up VW's hierarchy knowledge of the fraud went.

The court document about Mr Schmidt alleged that he and others briefed “executive management” at VW's Wolfsburg headquarters about the software in July 2015 and assured managers that US regulators were not aware of the defeat device. The executives “authorised its continued concealment”, added the document.



As part of the criminal settlement, the DoJ and VW outlined a so-called statement of facts about the scandal. Lawyers in Europe are expected to pore over the details in the hope of using it as leverage to seek compensation in the region.

While VW has [offered to buy back](http://next.ft.com/content/956928ba-3d49-11e6-9f2c-36b487ebd80a) (http://next.ft.com/content/956928ba-3d49-11e6-9f2c-36b487ebd80a) about 500,000 diesel cars in the US that contained defeat devices, the company rejects the case for taking similar steps in Europe because it maintains the software used to bypass emission tests did not breach EU law.

Up to 9m VW diesel cars in Europe had software to understate emissions in official tests, and some lawyers are busy signing up angry owners who want a buyback or other compensation.

Ingo Speich, a senior portfolio manager at Union Investment, a VW shareholder, said even with the US criminal fines close to being finalised the outstanding litigation risk for the company remains huge. "It's still too early to say the worst is over," he added.

### **Company seeks to revive profitability**

Volkswagen [reported \(http://next.ft.com/content/c8c5f6f4-08a4-11e6-b6d3-746f8e9cd d33\)](http://next.ft.com/content/c8c5f6f4-08a4-11e6-b6d3-746f8e9cd d33) its largest ever annual loss for 2015 because of costs stemming from the diesel emissions scandal.

With the German carmaker close to finalising all US expenses relating to the affair, VW's big hope is that it can revive its profitability and shift its focus towards becoming a leading manufacturer of electric vehicles.

Certainly that is how the stock market took the news on Wednesday of an imminent VW settlement with the Department of Justice. VW shares are up more than 13 per cent this month to €151, their highest level since the scandal became public in 2015.

The jump reflects expectations that chief executive Matthias Müller can use the worst crisis in the company's history as a catalyst for reforms that some investors have been seeking for years.

Last June Mr Müller promised the "biggest change process" ever at the group, with a key focus on the turnaround of the [underperforming VW brand \(http://next.ft.com/content/e2afceba-8ec8-11e5-94a4-639039952d45\)](http://next.ft.com/content/e2afceba-8ec8-11e5-94a4-639039952d45).

Even before these changes kick in, VW appears to be bouncing back. On Wednesday, the company announced it had sold a record 10.3m cars in 2016, almost 4 per cent more than in 2015, and probably enough to retake the world's largest carmaker crown from Toyota, which has projected fewer than 10.1m sales for last year.

Though VW's car sales in Germany last year were flat, and down 3 per cent and 25 per cent respectively in the US and South America, these figures were more than offset by a 12 per cent rise in China, the company's biggest market.

Analysts, however, are more concerned with profitability. Mr Müller has promised that the VW brand, which accounts for half of group revenue but suffers from low margins, will improve its performance. He wants [operating margins \(http://next.ft.com/content/](http://next.ft.com/content/)

08abc2a0-b0a5-11e6-a37c-f4a01f1b0fa1) to rise from 2 per cent in 2015 to 4 per cent in 2020, and 6 per cent by 2025.

Hitting those targets will mean cutting the group's workforce of more than 600,000.

This has been long considered a much-needed but difficult goal given the power of VW's works council, but in November the company announced that worker representatives had agreed to cut 30,000 jobs through attrition by 2020.

"The key thing is, is there another leg to this story?" said Stephen Reitman, analyst at Société Générale.

He added central aspects of VW's long term strategy, such as producing 2m to 3m electric cars within a decade, are only in "incubator stage".

One aspect of VW's criminal settlement with the DoJ might help bring about renewed focus on its [corporate governance \(http://next.ft.com/content/47f233f0-816b-11e5-a01c-8650859a4767\)](http://next.ft.com/content/47f233f0-816b-11e5-a01c-8650859a4767), which has been strongly criticised by some investors because a few large shareholders plus worker representatives have huge influence.

VW has agreed with the US authorities to have an independent monitor watch over the company for three years.

Jeff Thinnes, founder and chief executive of JTI, a consultancy, said the monitor amounted to "the long-awaited Trojan Horse coming into Wolfsburg".

"It could bring some strategic changes to the company that the inbred culture of VW made impossible," he added.

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