



A large white circle is positioned on the right side of the frame, partially overlapping a black triangle pointing upwards. To the left of the white circle, there is a smaller, dark gray circle with a thin white outline. Inside this dark gray circle is a white number '1'. The background is black.

1

Dyson Airwrap

Dyson Wants to Curl Your Hair

*But its cutting-edge
technology — magical
air currents — will cost
you.*



Introducing the Dyson Airwrap™ styler.
A completely new way to style hair

Dyson Wants to Curl Your Hair

“This will break the internet,” said Jen Atkin, the founder of Ouai Haircare and stylist to several Kardashians(卡黛珊家族) .



Jen Atkin

Her excitement was not for a celebrity **makeover** or magazine cover but for the latest product introduction from Dyson: the Airwrap, a tool that can curl or smooth or dry hair. Ms. Atkin is a brand ambassador (品牌大使) whose job is to **whip up** (激发) interest in the new product and to educate interested parties on its use.

makeover /'meɪkəʊvə(r)/

noun (个人形象的) 大变样，改头换面；

noun 革新

whip up [wɪp]

verb 煽动，激起

verb 赶出来(一顿饭)，迅速做(饭)



The actress had a complete **makeover** to turn her into a glamorous star.

这位女演员进行了彻底改造，使她变成了一位迷人的明星。

The biggest **makeover** has been in TV drama.

最大的革新已经出现在电视剧业里。

She criticized the organization for trying to **whip up** anti-immigrant prejudice.

她批评该组织试图煽动反移民的偏见。

She **whipped up** a delicious lunch for us in 15 minutes.

她在15分钟内为我们匆匆做了一顿美味的午餐。

Dyson Wants to Curl Your Hair

A black and white photograph of a woman from the chest up. She is holding a Dyson Supersonic hair dryer in her right hand, pointing it towards her hair. Her hair is long and wavy. The background is blurred, suggesting a bathroom or salon setting.

The Airwrap release follows the introduction in spring 2016 of the Supersonic, the doughnut-shaped(甜甜圈形状) hair dryer with a \$399.99 price tag that was Dyson's first **foray** (涉足) into the beauty market. A Google search for Dyson Supersonic and “worth the **hype** (炒作)” yields more than 9,000 results. So one may expect the Airwrap to be met with a similar blend of curiosity and excitement.

foray /'fɔ:reɪ/

noun 初次尝试

noun (军队为了打击敌人或夺取补给品的)
突袭，闪电式侵袭

hype [haɪp]

verb / noun (新闻媒体的)
大肆宣传，炒作

Buying PillPack is not Amazon's first **foray** into health care.

购买PillPack并不是亚马逊首次涉足医疗保健领域。

Those on the front line make regular **forays** into occupied territory.

在前线的人经常突袭进入被占领领土。

I've been put off reading the book by all the **hype**.

所有的宣传炒作让我对这本书产生了反感。

It's being **hyped** as the musical event of the year.

它正被炒作成年度音乐盛事。

Dyson Wants to Curl Your Hair

The Supersonic was **touted** (吹捧) as being lighter and faster at drying and less damaging than other models on the market. And, it had the **cachet** (特征、声望) of being innovative and it looked different from anything that had come before. Even though the company, based in Malmesbury in Wiltshire, England, declined to share sales figures, it appears to have been a **hit**.

tout /taʊt/

verb 标榜，吹捧，宣传

noun 黄牛

cachet /kæˈʃeɪ/

noun 声望，声誉；威信



The minister has been **touting** these ideas for some time.

这段时间以来，部长一直在宣传这些理念。

Britain's best-known ticket **tout** once boasted that he could get you tickets for anything.

英国最有名的票贩子曾经夸海口说他什么票都能搞到。

Having a Ph.D still gives one a certain **cachet**.

拥有博士学位仍然会给人带来某种声望。

A Mercedes carries a certain **cachet**.

奔驰汽车久负盛名。

Dyson Wants to Curl Your Hair

The Airwrap can be used on wet hair and, **with** heat at less than 300 degrees, is much less hot than the 360 to 450 degrees that other curling wands (棍、棒) average, **which** is good for protecting hair from damage but also skin from injury.

A 2001 study in the journal Academic Emergency Medicine found that over five years studied, there were an estimated 105,081 injuries related to hair-care products, of which thermal (热的) burns were the most common.



Dyson Wants to Curl Your Hair



Smooth Brush

Curling Iron

Round Brush



Tom Crawford, Dyson's global research and development director for personal care, said that the development process of the Airwrap has taken about **six years, 642** prototype iterations and **\$31.4 million** in development costs.

Dyson Wants to Curl Your Hair

At the early stages Dyson had two teams working in parallel. One was a research team looking at technology, motors (马达), air flow, **acoustics**, noise or the science of hair. Another team looked at the science of human interaction with the product. As Mr. Crawford explained, “They’re saying: ‘Having to wrap your hair around a hot iron and rotate it is awkward (笨拙的) . Wouldn’t it be nice if you didn’t have to do that. Let’s try to get rid of that process.’ It’s scientific research working **in tandem** (齐头并进) with **blue-sky** thinkers coming up with wild ideas. Then we force-fit (硬揉) these two approaches to one.”

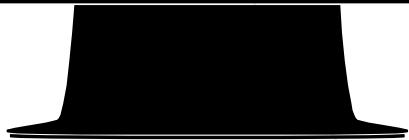
acoustics /ə'ku:stɪks/

noun 声学；音响效果

in tandem (with sb./sth.)

并驾齐驱；协同地

blue-sky *adj.* 不切实际的，脑洞大开的



The **acoustics** of the new concert hall are excellent.

新音乐厅的音响效果非常好。

Stock prices pushed sharply higher this afternoon **in tandem with** a rise in the dollar.

今天下午，随着美元升值，股票价格大幅上涨

I want these two groups to work **in tandem** on this project.

我希望这两个小组联合搞这个项目。

The laboratory tries to maintain a balance between applied research and **blue-sky** research.

实验室试图在应用研究和充满想象力的研究之间保持平衡。

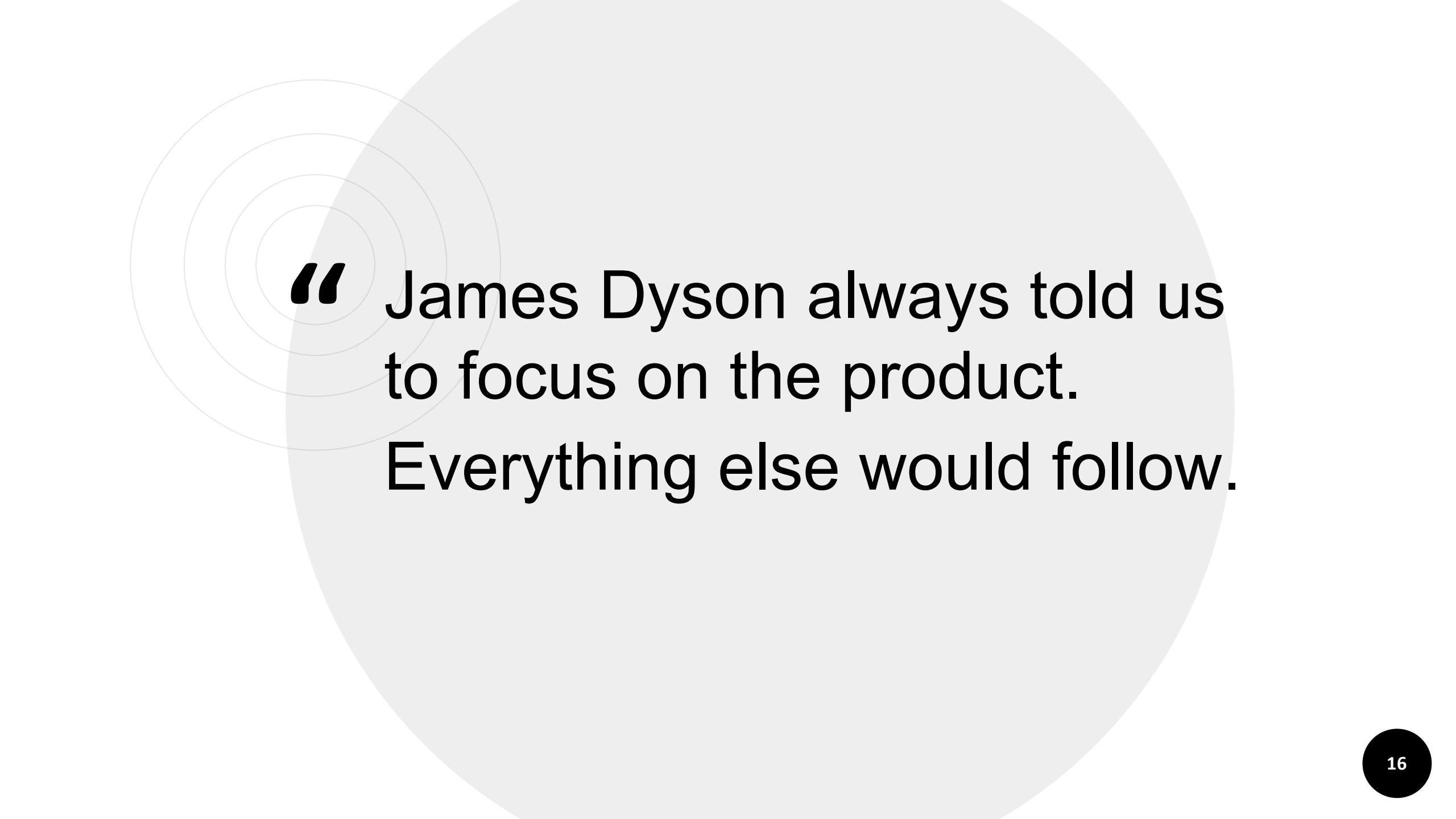


2

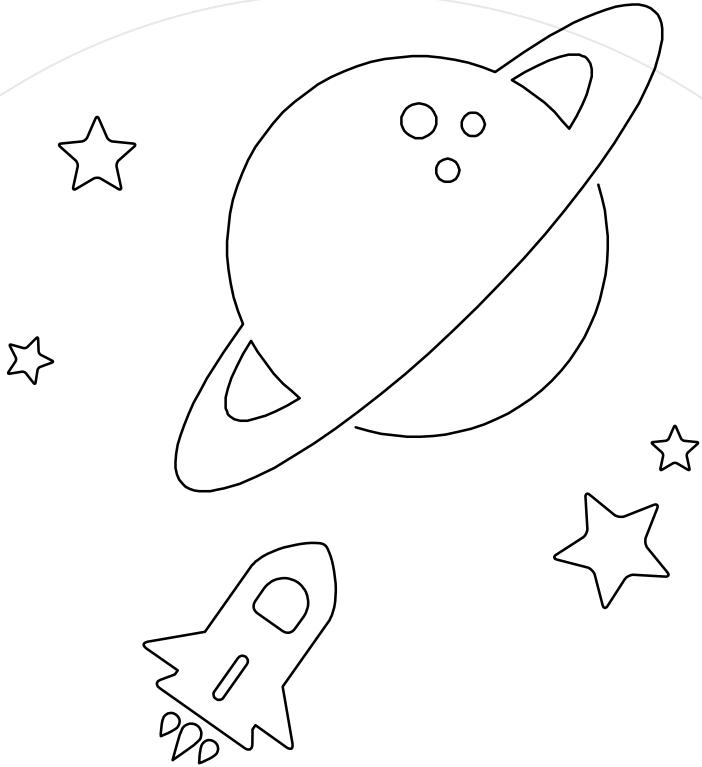
*Dyson Is the Apple
of Appliances*







“ James Dyson always told us
to focus on the product.
Everything else would follow.



Engineering Story Dyson

Dyson Ltd

Dyson Ltd is a British technology company that designs and manufactures household appliances such as vacuum['vækjuəm](真空的) cleaners, hand dryers, heaters and hair dryers.

As of February 2017, Dyson had more than 8,500 employees worldwide.

Sir James Dyson, who founded the company in 1991, is worth about £5 billion, or \$6.2 billion.



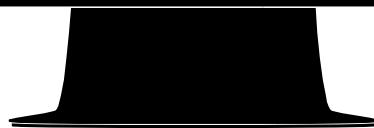
manufacture

[*'mænʃə'fæktsə*]

n. 制造；产品；制造业

vt. 制造；加工；捏造

vi. 制造



Dyson Ltd is a British technology company that designs and **manufactures** household appliances such as vacuum cleaners.

戴森公司是一个**制造**类如真空吸尘器等家用电器的英国科技公司。

According to the prosecution, the officers **manufactured** an elaborate story.

根据起诉，军官们精心**编造**了事情的经过。

Now they lead in the **manufacture** of weapons of mass destruction.

现在他们在**制造**大规模杀人武器方面领先。

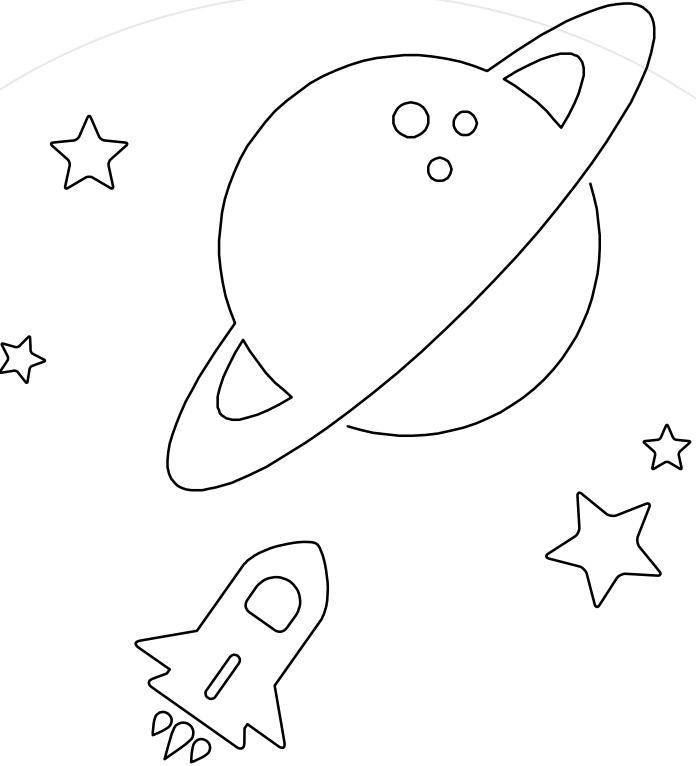
James Dyson

- “Like everyone we get frustrated (沮丧) by products that don’t work properly. As design engineers we do something about it. We’re all about invention and improvement.”

James Dyson

James Dyson
Inventor of cyclonic vacuum technology





Inventor James Dyson Refuses To Play It Safe

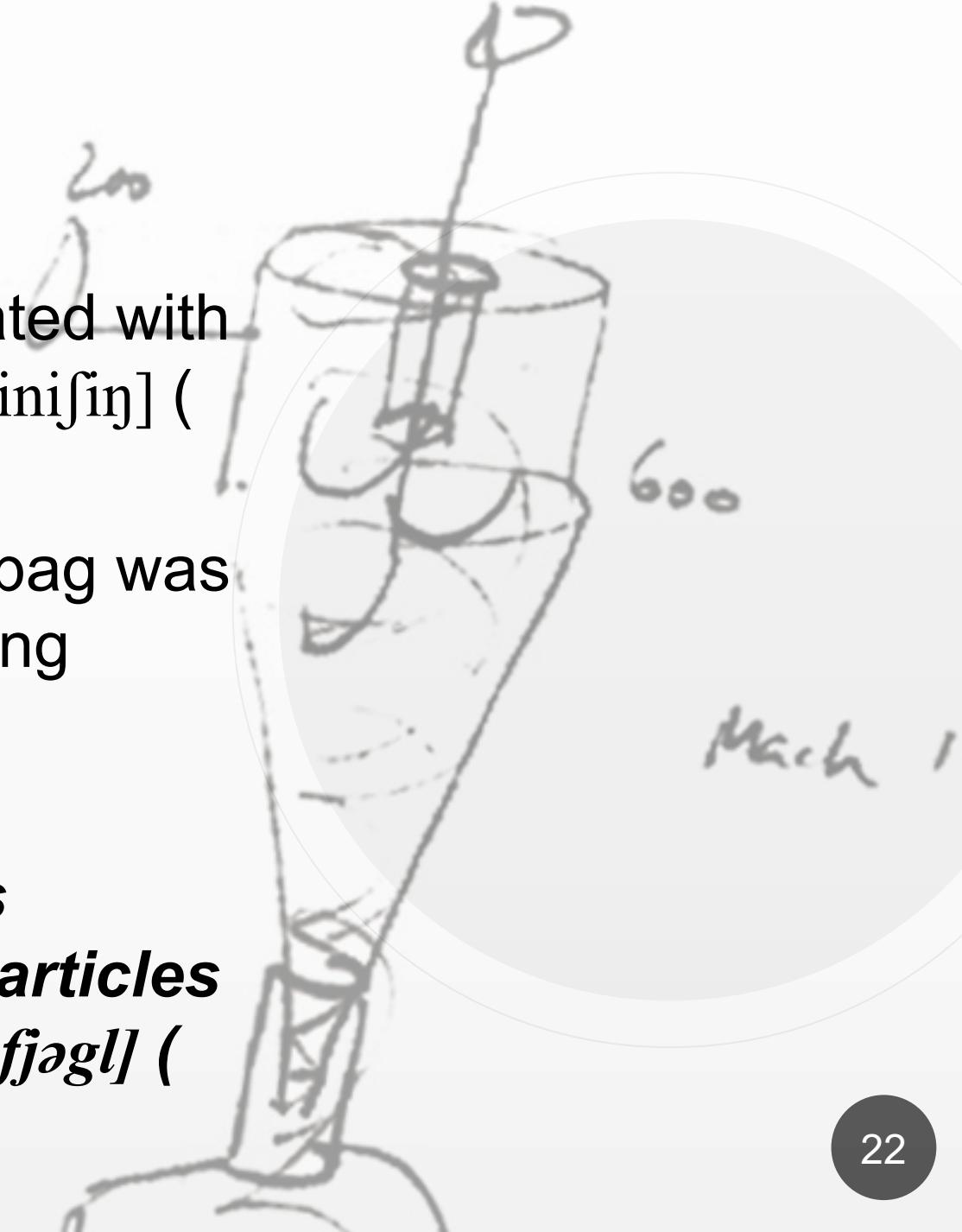
Begin with an idea

Inspiration (灵感)

In 1978, James Dyson became frustrated with his vacuum cleaner's diminishing [di'miniʃɪŋ] (衰减的) performance.

Taking it apart, he discovered that its bag was clogging [klagɪŋ] (阻塞) with dust, causing suction ['sʌkʃən] (吸力) to drop.

He'd recently built an industrial cyclone ['saiklon] (旋风) tower for his factory that separated paint (油漆) particles from the air using centrifugal [sən'trɪfjəgl] (离心的) force.

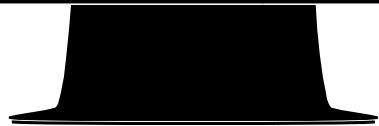


paint [peɪnt]

vt. 用油漆刷；绘画；装饰；涂色于；描绘；（用语言，文字等）描写；擦脂粉等

vi. 油漆；描绘；绘画；化妆

n. 油漆；颜料，涂料；绘画作品；胭脂等化妆品；色彩，装饰



- He'd recently built an industrial cyclone tower for his factory that separated **paint** particles from the air using centrifugal force.

他最近为他的工厂建造了一个工业旋风塔，利用离心力将**油漆**颗粒从空气中分离。

- The boy could not **paint** on, because his mother wanted him to be a teacher.

这男孩不能再**绘画**了，因为他母亲想让他成为一名教师。

- Maybe we could leave this wall white and **paint** the other wall red.

也许我们可以把这面墙留白，把另一面墙**刷**成红色。

Begin with an idea

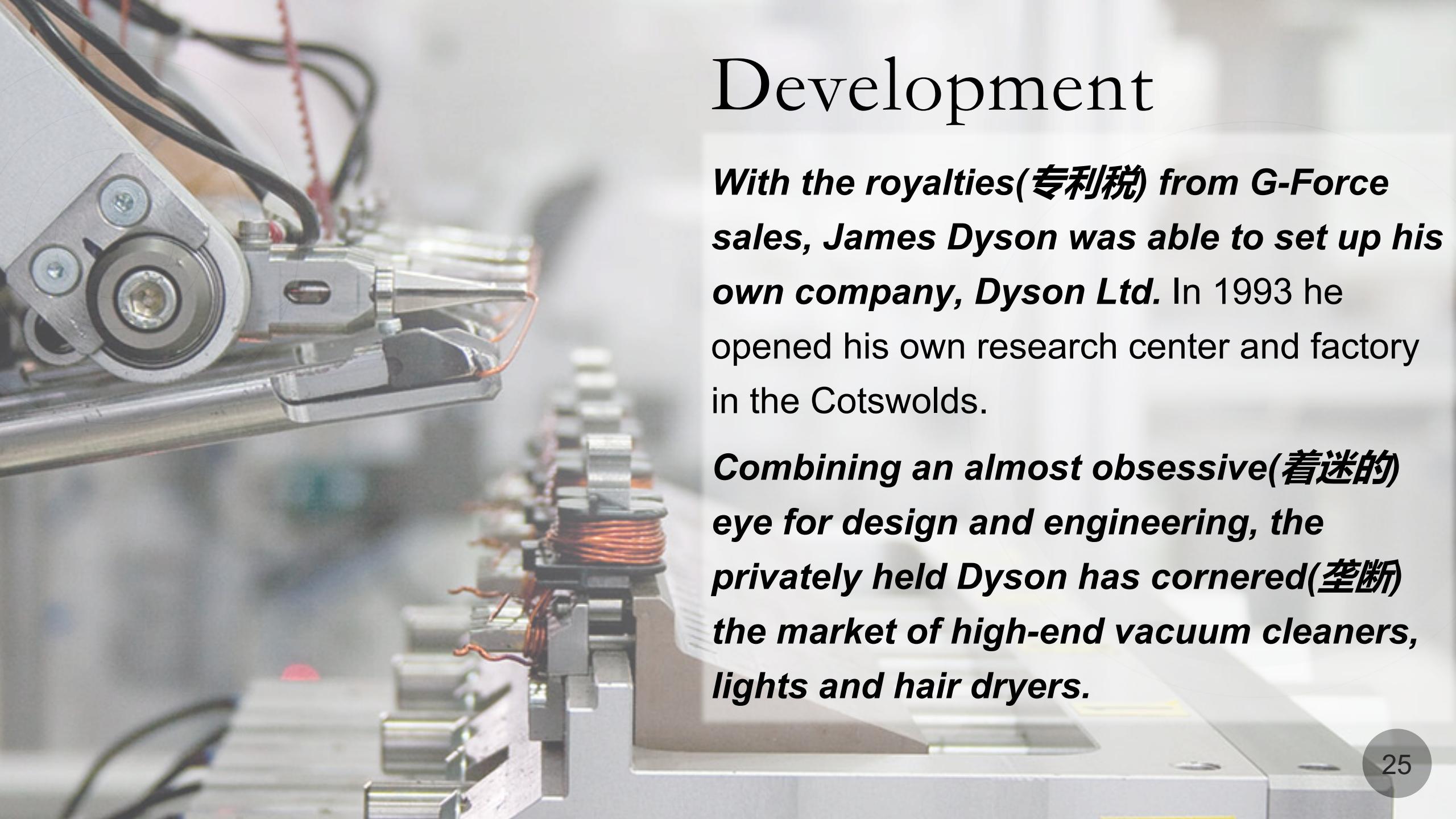
Persistence (坚持不懈)

He wanted to know could the same principle work in a vacuum cleaner.

Five years and 5,127 prototypes later, he had invented the world's first bagless vacuum cleaner.

This cleaner, known as the 'G-Force', impressed the Japanese with its performance and quickly became a status symbol, selling for \$2,000 a piece. It also won the 1991 International Design Fair prize(国际设计博览会奖) in Japan.



A close-up photograph of a robotic arm's gripper mechanism. The gripper is made of metallic components, including a central cylindrical part and several fingers. It is gripping a small, rectangular object with a textured surface. The background is blurred, showing more of the robotic arm and its internal mechanical parts.

Development

With the royalties(专利税) from G-Force sales, James Dyson was able to set up his own company, Dyson Ltd. In 1993 he opened his own research center and factory in the Cotswolds.

Combining an almost obsessive(着迷的) eye for design and engineering, the privately held Dyson has cornered(垄断) the market of high-end vacuum cleaners, lights and hair dryers.



royalty ['rɔɪəlti]

n. 皇室；版税；王权；专利税

With the **royalties** from G-Force sales, James Dyson was able to set up his own company, Dyson Ltd.

靠着销售G-Force带来的**专利税**，詹姆斯戴森能够建立起自己的公司——戴森公司。

Royalty and government leaders from all around the world are gathering in Japan.

来自世界各国的**王室**和政府首脑们正聚集日本。

I lived on about \$5,000 a year from the **royalties** on my book.

我靠大约五千美元一年的**出版税**生活。

corner ['kɔ:nə]

n. 角落，拐角处；地区，偏僻处；
困境，窘境

vi. 囤积；相交成角

vt. 垄断；迫至一隅；使陷入绝境；
把...难住



Combining an almost obsessive eye for design and engineering, the privately held Dyson has **cornered** the market of high-end vacuum cleaners, lights and hair dryers.

结合对于设计和工程近乎痴迷的眼光，私人控股的戴森公司**垄断**了高端真空吸尘器，灯具和吹风机市场。

He saw the **corner** of a magazine sticking out from under the blanket.

他看到毯子下露出了杂志的**一角**。

A police motorcycle chased his car twelve miles, and **cornered** him near Gainsborough.

一辆警车追踪他的汽车12英里，在盖恩斯堡附近把他**逼得走投无路**。

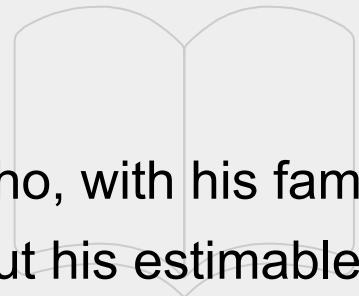


3

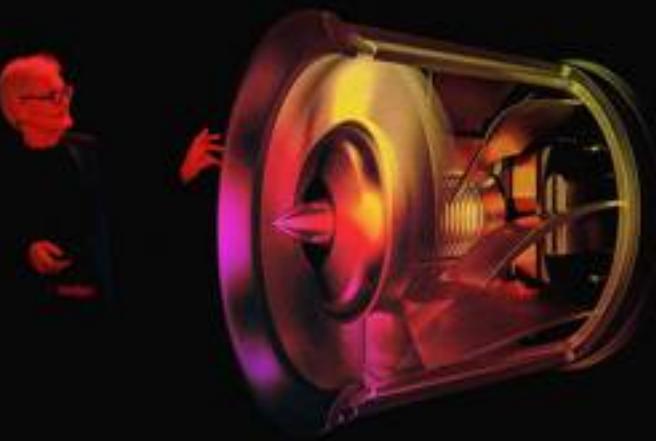
Dyson's Failure in EV

Why James Dyson Killed His Electric Car Passion Project

Within weeks, the reason behind Dyson's reticence(沉默) becomes clear: He had already decided the car project was doomed. In fact, while he was exuberantly(兴奋地) peddling (兜售) vacuums and hair stylers, his bankers were unsuccessfully scrambling(争夺) to find a buyer for the electric vehicle program to which Dyson had committed four years, hundreds of engineers, and 2 billion pounds (\$2.5 billion). On Oct. 10, Dyson said his privately held company would cease (cease) work on the project, ending his electric car dreams before .



It was a gutsy (勇敢的) decision and a rare public setback (挫折) for Dyson, who, with his family, owns the entirety of the company that bears his name (以他名字命名) . He had put his estimable(良好) reputation on the line with the car, promising a “**radically**(根本) different” vehicle that would feature “revolutionary” battery technology while outperforming more experienced competitors. And he had promised to have it in customers’ hands by 2021, a dramatically short time frame for a neophyte(新手) automaker. “It just wasn’t commercially viable (可行的) ,” Dyson said. Although Dyson’s crack(精明) auto team successfully created an innovative new car, he wasn’t willing to price it below cost (定价低于成本) , as he believes the competition is doing. “It’s a tragedy (悲剧) , really, because our engineers have done a brilliant job.”



Dyson's inability to produce a profitable (盈利的) automobile speaks volumes about (充分说明了) the current perilous(危险) state of the electric vehicle industry, in which companies like Elon Musk's Tesla and Chinese startup Nio are burning through billions of dollars annually with no sign of *black ink*(盈利) on the horizon(即将发生). The story of his audacious(大胆) but ultimately (最终) failed project also says much about Dyson, the rare executive(罕见的管理人) who can combine blue-sky dreaming (蓝天梦想) with steely-eyed financial discipline. At a time when every company speaks about innovation and **disruption**, Dyson's decision to kill his electric car is a case study in the delicate (微妙的) balancing act of embracing ingenuity (独创性) while keeping an eye on profits (利润).

Why Dyson gets into the pit (坑) of EV...

Improbable(不可能的) though it seems in retrospect(回想), there were good reasons for James Dyson to attempt to make an all-electric automobile. Electrification presented a once-in-a-century opportunity in the auto industry, one that Dyson was not alone in spotting. Electric powertrains(传动) require only about 20 moving parts compared with more than 2,000 for cars with internal combustion engines(内燃机)—a fact that theoretically lowers barriers to entry (降低了进入门槛). Several years ago, it looked as if there was room for more entrants (参赛者).

Dyson thought he had a better shot than most. His company was **thriving** (蒸蒸日上), with 2018 sales jumping 25% to a record \$5.6 billion. Pretax operating profits (税前营业利润) topped \$1 billion for the first time, driven by strong demand in Asia, where Dyson is a status-conferring consumer brand (享有地位的消费品牌). Through its vacuums, Dyson's company already was a global leader in electric motors (电机行业). It knew batteries too, thanks to its cordless(无绳) products. Key EV concepts like airflow and climate control also were present in all of Dyson's appliances. "When we realized, almost by accident, that we had the technology to build an electric car, it was natural to go into it," Dyson says. Back in 2015, when he first **conceived** (想到) of it, Dyson says there seemed to be ample (足够的) room in the market for a chassis-to-moonroof(底盘到天窗) rethink of what an EV should be.

Capital investment problems appear at start

Work on the top-secret (最高机密的) car program began in earnest(正式) in 2015, as Dyson recruited(招募) auto industry veterans (老兵) from Aston Martin and Jaguar Land Rover. The company is accustomed (习惯于) to operating clandestinely(秘密地). Products inside the company are known only by a number until they are publicly unveiled (发布) . Fingerprint scanners control access to labs.

But this time the secret got out. The U.K. government accidentally revealed Dyson's work on an electric car in an industrial strategy report it published online. In September 2017, he held a press conference in London to officially announce the project, saying he was committing (承诺) 2 billion pounds, including 1 billion aimed at producing a breakthrough in battery technology.

Automotive experts thought the sum was paltry(微小) compared with what would be needed to build a car. But it was orders of magnitude bigger than anything Dyson had ever spent on a new product. Its Supersonic hair dryer, for instance, which it launched in 2016, had taken four years and cost \$71 million to develop.

Dyson's "perfect" plan for EVs

Dyson was undeterred. The company was committed to rethinking the car from first principles—a philosophy (理念) that had underpinned(支撑) Dyson's success in household products. “We wanted to change everything and not use other people's architectural layout,” Dyson says. The company would design all its components in-house, from motors to windshield wipers(雨刷). “If you look at the way other auto companies operate, they treat components as black boxes,” says Andrew Clothier, Dyson's director of technical research. They buy parts off the shelf (现成的) and bolt(组装) them together. That's cheaper and faster but comes at the expense of innovation, he says. Dyson would try a completely different approach. (Tesla also designs its own electric motors 电动机, battery packs 电池组, and chargers 充电器.)

Every EV on the road today uses “wet” lithium-ion(锂离子) batteries. These cells are efficient but take time to charge and are prone to catching fire. Dyson thought he could gain an edge by using solid-state (固态电池) batteries instead. Such batteries are the **Holy Grail**(圣杯) for EVs. They pack more power for their weight, meaning they would vastly extend the car's range (行驶范围) . They also charge far faster and are much safer.

Beset with difficulties (困难重重)

All along (一直以来), James Dyson knew this project was likely to be harder than any he'd attempted previously. He knew that he'd have to spend a lot of money and that without a dealer(经销商) network, he would have to rely on direct sales through digital channels(渠道). Most daunting(艰难) was the competition. European and Chinese regulatory(监管措施) moves to ban gas engines in coming decades acted as a catalyst(催化剂) for major automakers. Together, they are expected to pump 投入 \$300 billion into electric car development in the next decade.

Suddenly, Dyson's team faced a financial reckoning(清算). "Doing everything from scratch probably put up the cost," Dyson reflects. He admits the battery that the company wanted to use was more expensive than industry standards. Dyson always knew his car wouldn't be cheap.

At the end of the day, Dyson didn't blink at(感到惊讶) the "sunk costs" 沉没成本 of capital(资本) already invested in the car project. "It wasn't the investment at all," he says. Dyson says he would never consider putting his company in financial jeopardy(危机) for the sake(目的) of his car. He refused to overleverage(过度利用) Dyson or take it public, which would dilute(稀释) his control. "We don't have endless shareholders' (股东) money or the potential to raise shareholders' money," he says. "We're a family business."

Legacy of electric vehicles

In a windowless industrial shed(无窗工业棚屋) being constructed behind Dyson's striking(引人注目) mirrored-glass(镜面玻璃) D9 research lab, the company has built the largest advanced prototyping lab for solid-state(固态) batteries in Europe. Beyond EVs, solid-state batteries have potential uses in everything from mobile phones to consumer electronics to aircraft(飞机). And Dyson says it will continue its investment in them. "We think we've got something that is groundbreaking(开创性) and revolutionary(革命性)," says Mike Rendall, Dyson's head of energy storage industrialization(储能工业化). Called D9A, the new battery prototyping facility should enable Dyson "to bring solid-state batteries to market as soon as possible," Rendall says.

The day after canceling the car, Dyson seems subdued(柔和) but philosophical (有哲理). "There's lots of exciting stuff," he says of his product pipeline, including gadgets(机建) that may benefit from the automotive research. "And the silver lining(一线希望) of this horrible (可怕)decision is we can concentrate on those." Dyson may have missed his chance to beat rival(竞争对手) billionaire Elon Musk. But the inventor seems eager to get back to the lab and put his name on yet another breakthrough product.

From vacuum cleaners to ventilators 呼吸机



From vacuum cleaners to ventilators – can Dyson make the leap?

Since the engineering firm Dyson **unveiled**(首次展示) a prototype ventilator(呼吸机) that it said could help arm (帮助) the NHS (国家医疗服务体系)for a **surge** (激增) in Covid-19 patients, there has been scepticism(怀疑) about its role.



One ventilator expert, whose company Penlon is working with the Ventilator Challenge UK consortium(会社), speculated(推测) that designing a new device and producing thousands rapidly was unrealistic. The government has ordered 10,000 ventilators from Dyson, which developed its CoVent prototype in under a fortnight(两星期) and says it could start producing them within weeks. “The race 比赛 is now on to get it into production,” Dyson told staff in an emailed rallying cry(战斗口号).

unveil /ʌn'veɪl/

verb 为...揭幕；拉开...的帷幔；

verb (首次)展示;将...公之于众

surge /sɜːrdʒ/

verb 涌；汹涌

noun (数量的)急剧上升



The Queen **unveiled** a plaque to mark the official opening of the hospital.

女王主持揭幕式，标志着医院正式启用。

They will be **unveiling** their new models at the Motor Show.

他们将在汽车大展上首次推出自己的新型汽车。

The gates opened and the crowd **surged** forward.

大门打开了，人群向前涌去。

We are having trouble keeping up with the recent **surge** in demand.

对于近来出现的需求猛增，我们难以应对。

From vacuum cleaners to ventilators – can Dyson make the leap?

Nor has Dyson been working alone. It teamed up with the Technology Partnership, a Cambridge-based **melting pot**(大熔炉) of scientists and innovators, some of whom have significant medical experience.

The government's medical and healthcare products and regulatory(监管) agency has also been looking at Dyson's plans. It has yet to give final approval for the CoVent but it has been involved in testing.

Not everyone is happy about the way Dyson has gone about **trumpeting**(宣扬) its role in the effort. Dozens of companies are working on separate efforts to produce ventilators and all have kept their plans relatively secret until the government is ready to give an official update.

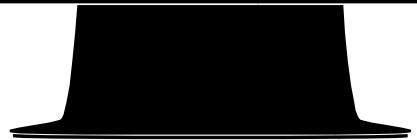
melt /melt/

verb (使) 熔化, 融化

Verb (使) 软化, 变得温柔

trumpet /'trʌmpɪt/

verb 宣扬; 鼓吹; 吹嘘



The snow showed no sign of **melting**.

雪没有一点融化的迹象。

The tension in the room began to **melt**.

屋里的紧张气氛开始缓和。

to **trumpet** sb's achievements

所有的宣传炒作让我对这本书产生了反感。

Their marriage was **trumpeted** as the society wedding of the year.

他们的联姻被宣扬成当年的豪门良缘。

From vacuum cleaners to ventilators – can Dyson make the leap?

“The government will be looking at all options to make sure they have the right technology available to them,” said Neil Campbell, whose company Inspiration Healthcare has a £4m contract to import ventilators from overseas while the UK production effort gathers pace(加快步伐). “There’s a need for an awful(可怕的) lot of ventilators and if someone has a plan you’re going to look at it.”

Dyson is not a complete outlier(局外人) in claiming it can design and build a ventilator – a complex and highly specialised(专业化) piece of equipment – from scratch. The defence(国防) and engineering firm Babcock followed suit(学样) on Thursday, working in tandem(同时实行) with an unnamed company that already has expertise in the area.

3

Presentation



Thanks!

Any questions?