

# Philip Morris International

## How a tobacco company's transformation can help pharmacists deliver a smoke-free future

Millions of lives throughout the world are claimed each year by smoking<sup>1</sup>, with 78,000 deaths per year, in England alone<sup>2</sup>.

The World Health Organization (WHO) estimates there are more than one billion smokers, globally, with this number predicted to remain roughly the same through to 2025<sup>3</sup>. This suggests that more needs to be done – in addition to current strategies aimed at preventing initiation and encouraging cessation – to decrease smoking prevalence more quickly.

Clearly, this is a global challenge that requires the large-scale intervention of science and innovation to aid regulatory efforts if these predictions are to be averted.

However, few would have expected a tobacco company to be part of the solution.

Yet, Philip Morris International (PMI) is doing just that. It is following its commitment in 2016 to focus on smoke-free products to replace cigarettes as soon as possible. Indeed, it believes that with the right regulatory and societal

environment, cigarette sales can end within 10 to 15 years in many countries.

Though this may raise eyebrows, PMI is not asking people to take its word on trust, alone. Instead, the company is letting its science lead the way, by submitting for peer review and publishing the evidence behind its pioneering smoke-free products, which it believes can help address a global public health issue.

### Delivering better science-backed smoke-free alternatives to continued smoking

In working towards a smoke-free future, PMI is transforming its operations from the inside-out to deliver scientifically substantiated smoke-free products for those adults who would otherwise continue to smoke.

Since 2008, the company has invested more than USD 7.2 billion in the research and development of its smoke-free products.

It employs more than 430 world-class scientists, engineers, technicians, data analysts, and experts from fields including material science, consumer electronics, chemistry, toxicology, systems biology, medicine, and epidemiology.

They are working to deliver a portfolio of smoke-free products that offer the taste, satisfaction, and ritual characteristics associated with cigarettes – but that have been scientifically substantiated as significantly less harmful than continued smoking.

The combination of PMI's scientific talent, commitment and innovation has led to the development of a novel, smoke-free tobacco heating system (THS) – commercially known as, IQOS.

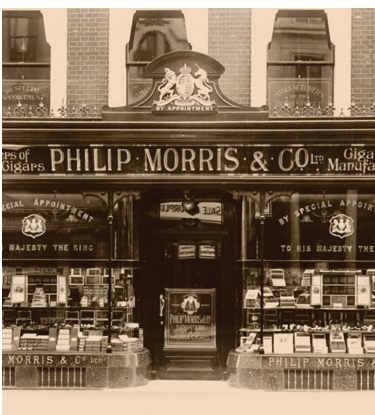


Philip Morris' R & D Headquarters today, Switzerland

Many people assume that it's the nicotine that makes cigarette smoking harmful. But the science shows it's actually the harmful chemicals created by the burning process that are the primary cause of smoking-related diseases, such as lung cancer, cardiovascular disease, and emphysema.

PMI's THS is fundamentally different to cigarettes, because it heats tobacco, but does not burn it. Because of this, no smoke or ash is generated and, as a result, IQOS emits, on average, 95 per cent lower levels of harmful chemicals compared to cigarettes\*. Consequently, it represents a much better choice for adults who would otherwise continue smoking.

To date, over 11.7 million adults



The Philip Morris shop in the early 20th century, London

**REFERENCES** 1. World Health Organization, ([https://www.who.int/substance\\_abuse/facts/tobacco/en/](https://www.who.int/substance_abuse/facts/tobacco/en/)) 2. PHE, Smoking and tobacco: applying "All Our Health", Updated 16 June 2020 (<https://www.gov.uk/government/publications/smoking-and-tobacco-applying-all-our-health/smoking-and-tobacco-applying-all-our-health>) 3. WHO global report on trends in prevalence of tobacco use 2000-2025, Third edition <https://www.who.int/publications/i/item/who-global-report-on-trends-in-prevalence-of-tobacco-use-2000-2025-third-edition> 4. PMI third-quarter results, October 20, 2020 (<https://philipmorrisinternational.gcs-web.com/static-files/8fe1e879-7edd-4fba-821f-20980d5784ac>) 5. PMI, "In Support of the Primacy of Science", 14 September 2020 ([https://www.pmi.com/resources/docs/default-source/ymv/pmi-white-paper-primacy-of-science.pdf?sfvrsn=a845efb4\\_8](https://www.pmi.com/resources/docs/default-source/ymv/pmi-white-paper-primacy-of-science.pdf?sfvrsn=a845efb4_8)).



Important information: IQOS is not risk-free. It delivers nicotine, which is addictive.

IQOS emits 95% lower levels of harmful chemicals compared to cigarettes.\*

Important information: It does not necessarily equal a 95% reduction in risk. IQOS is not risk-free.

\*Average reductions in levels of a range of harmful chemicals (excluding nicotine) compared to the smoke of a reference cigarette (3R4F).

worldwide have switched over to PMI's THS and stopped smoking<sup>4</sup>.

### The journey of one pharmacist who joined a tobacco company

Despite the technological advances in moving adult smokers away from cigarettes (the most harmful form of nicotine use) the motives of PMI's scientists – many of whom have moved across from the pharmaceutical industry – are sometimes questioned.

But there are notable parallels to be drawn between the scientific work of PMI and the pharmaceutical industry, according to pharmacy graduate Dr. Moira Gilchrist, PMI's Vice President of Strategic & Scientific Communications.

"R&D in the pharmaceutical industry is about using innovation and science to help address health problems," she says. "By the same token, PMI is using technology and science to develop alternatives that are a better choice than continuing to smoke."

The Scottish executive – who has a PhD in pharmaceutical sciences – is no stranger to scrutiny, following her move to PMI in 2006. She was working for a pharmaceutical management consultancy in Basel, Switzerland – serving a string of big pharma clients – when PMI approached her.

"Coming from the pharmaceutical industry, I would never have dreamt of joining a tobacco company," admits Dr. Gilchrist, who was previously assistant director of the clinical trials Formulation Unit at Cancer Research UK.

"When PMI initially approached me, I just couldn't fathom what a tobacco company would need me for.

"It only became clear when I learned about the company's vision to really address the very core of the problem that cigarette smoking causes – which is disease and early death – by developing, scientifically assessing and eventually commercialising products that were better choices for adult smokers who would otherwise continue to smoke."

"I realised I had a unique opportunity to help change the trajectory of the company – and potentially the industry overall – through the science and innovation at the heart of PMI's transformation. "The prospect of successfully producing a product supported by scientific evidence that could be a game-changer for millions of adults who would otherwise continue to smoke was an opportunity I couldn't turn down."



**Dr. Moira Gilchrist,**  
Vice President of  
Strategic & Scientific  
Communications

Having spent the next decade working with her colleagues to develop and scientifically assess smoke-free products at PMI's R&D facility, Dr. Gilchrist became Vice President of Strategic & Scientific Communications at the company's Operations Center in Lausanne, Switzerland, in January 2018.

### "Giving smokers the better choices they deserve"

The best choice any smoker can make is to quit tobacco and nicotine use altogether. Unfortunately, many don't.

Helping provide this large population with the opportunity to make better choices than continuing to smoke, by switching to smoke-free alternatives, is what drives Dr. Gilchrist in her role.

"More than one billion people on the planet are estimated to smoke," she states. "And, with the facts of science as our north star, we can provide adults who would otherwise continue to smoke with smoke-free alternatives that science demonstrates are a far better choice than combusted tobacco.

"Who would deny these people that right? They are human beings like you and me who deserve the chance to make better choices for themselves."

An international survey published

by PMI in a white paper entitled "In Support of the Primacy of Science" found that 77 percent of the respondents in 19 countries and territories are hopeful that advances in science can deliver solutions to society's biggest problems<sup>5</sup>.

It's Dr. Gilchrist's hope that pragmatism and an acceptance of PMI's robust and publicly available science will prevail, shaping a better course for policies aimed at reducing smoking prevalence.

"We will continue on our trajectory

### "We can provide adults who would otherwise continue to smoke with smoke-free alternatives that science demonstrates are a far better choice than combusted tobacco"

of being transparent about the scientific facts," she adds, "supporting regulation that helps adults who smoke make better choices, as well as measures to deter unintended audiences – especially those

below the age of 18 – from using tobacco and nicotine-containing products. This, surely, will mean that overall support from people in public health will improve.

"PMI is transforming with the sole purpose of developing and delivering scientifically substantiated better choices to adult smokers who would otherwise continue smoking.

"We're putting consumers first. And we're calling on all vested parties – from pharmacists to policymakers – to do the same."