



VAPING AND THE GATEWAY MYTH

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EXECUTIVE SUMMARY

Vaping has been extensively accused of being a gateway to smoking for adults and adolescents. Multiple studies have aimed to undermine the credibility of e-cigarettes as a cessation tool, and there is an urgent need to shift the Overton window of the debate and outline a science-based perspective that policymakers can use to enhance the wellbeing of consumers.

This paper aims to debunk several aspects of the “gateway argument” and provide an alternative perspective as to why vaping actually helps conventional smokers divert from traditional and harmful tobacco consumption.

The main findings of this paper are:

- Nicotine is not the issue – toxins in cigarettes are
- E-cigarettes help adults quit smoking
- Vaping does not lead to smoking among adolescents
- Banning flavours won't solve the problem

Vaping is a gateway out of smoking and should be endorsed by policymakers as such.

INTRODUCTION

Vaping has been proven to be [95% less harmful than smoking](#) and has been endorsed by multiple international health bodies as a safer alternative. While some critics have argued that vaping is a gateway to smoking, the opposite is true. Vaping is a gateway from smoking, and has been used by millions of adults to reduce the health risks associated with tobacco consumption.

The innovative nature of vaping has contributed to its success and allowed it to quickly gain popularity among smokers. At the same time, because it is a novel technology, it has also been met with suspicion and has come under fire in many countries. Current examples are stringent branding and marketing restrictions in Germany, liquid flavour bans in the Netherlands and California. While intended to protect the public, especially young people, such restrictions have instead blocked access for adults to vaping products and thus prevented many smokers from improving their wellbeing by switching from smoking to vaping.

Despite their life-saving potential, e-cigarettes have been widely scrutinised on their effectiveness in helping people quit smoking. Some of the most recent studies have found that people who vape may be more likely to start smoking. Naturally, such claims have spurred a wider discussion on the essence of vaping and whether it contributes to tobacco abstinence after some time, or whether it serves as a gateway to conventional smoking.

This policy note aims to provide a comprehensive set of arguments of why vaping is a gateway out of smoking and not a path towards it. The belief that we should hold back innovations such as e-cigarettes is deeply flawed for a number of reasons:

- The essence of e-cigarettes is different from that of conventional cigarettes, and their purpose is to serve as a safer alternative that reduces health-associated risks
- Nicotine, also found in e-cigarettes and used in conventional nicotine replacement therapy, doesn't increase the risk of serious illnesses (heart attack, stroke) or mortality
- Vaping does help adult smokers quit: every 1 per cent rise in use of e-cigs is associated with a 0.06% increase in the quit success rate
- Youth use of e-cigarettes is rare and most users are current or former smokers
- Flavours are a crucial part of cessation through vaping: vapers who use flavours are 2.3 times more likely to quit smoking than those using tobacco-flavoured e-cigarettes

Science knows enough about vaping to endorse it, and our policy note demonstrates it very clearly.

E-CIGARETTES: WHAT ARE WE TALKING ABOUT

E-cigarettes or vaping devices were launched as a safer alternative to smoking with the intention to help smokers – especially heavy ones – quit smoking and consume nicotine in a less harmful way. The target audience of vaping devices is consumers who smoke conventional cigarettes. Every criticism of e-cigarettes has to be mindful of this fact, and we can only draw conclusions about the success of e-cigarettes by taking into account the number of smokers who have managed to stop or reduce smoking with the help of vaping, or the likelihood of them doing that.

One of the biggest mistakes policymakers often make is regulating something they don't fully understand and doing so before there is an understanding of the impact. This has been obvious in the case of vaping.

Traditional cigarettes when burned create more than 7,000 chemicals, 69 of which have been identified as potential carcinogens. The essence of e-cigarettes is different from that of conventional cigarettes: the two main ingredients used in vape liquids

are propylene glycol (PG) and vegetable glycerin (VG), both used to form the vapour and add flavour to it. Added to these two ingredients is a flavour, usually a common food flavouring found in cakes, oils, and other food items that help give the vape liquid its taste. All of these aforementioned compounds are common food

ingredients that are deemed [safe](#) and [not harmful](#) by regulatory bodies including the European Food Safety Authority (EFSA). The other variable ingredient in vape liquid is nicotine, a stimulant alkaloid. Though not all liquids contain this addictive chemical, it is widely seen as the main draw for former smokers looking to quit smoking. When compared to other alternatives in getting people to quit, including Nicotine Replacement Therapy (NRT) patches and drugs, vaping has been found to be [almost twice as effective](#). Later in

the paper, we analyse the actual number of people vaping, but first, we must look at nicotine itself.

“Traditional cigarettes when burned create more than 7,000 chemicals, 69 of which have been identified as potential carcinogens.”

THE GATEWAY ARGUMENT AND NICOTINE: NICOTINE IS NOT THE ISSUE – TOXINS ARE

An argument commonly made is that nicotine is addictive and a highly potent nerve toxin that damages the heart and blood vessels. On this basis, it is claimed that vaping can contribute to a nicotine addiction.

In the average dosage in vaping or smoking, nicotine mimics some of the effects of an endogenous substance (acetylcholine) and thereby activates nerve cells in the brain and in the autonomic nervous system. Professor [Bernd Mayer](#) (toxicologist at the University of Graz & Scientific Advisor of the World Vapers' Alliance) explains that “the effect as a nerve poison, the blockage of the function of nerve cells, only occurs in the event of a massive overdose, which is not achieved with inhalation. The addiction to smokers is based on a combination of nicotine and other ingredients of tobacco smoke together with conditioned behaviour [the so-called ‘smoking ritual’].” In the absence of tobacco smoke, the [potential for addiction to nicotine is very low](#), so that most vapers feel much less addictive pressure than smokers. “In addition”, adds Mayer, “smokers do not die from their addiction but from the harmful effects of the ingredients in tobacco smoke. In the cardiovascular system, much like caffeine, nicotine leads to a slight increase in blood pressure and heart rate. These effects

are clinically harmless, the risk of serious illnesses (heart attack, stroke) or mortality is not increased by nicotine.”

There is no question that people should not be encouraged to start consuming nicotine. But public health authorities must abstain from scaring current smokers from switching to vaping rather than having them continue to use more harmful cigarettes. The British [National Health Service](#) follows a pragmatic approach towards nicotine consumption and vaping by stating that: “While nicotine is the addictive substance in cigarettes, it’s relatively harmless. Almost all of the harm from smoking comes from the thousands of other chemicals in tobacco smoke, many of which are toxic. Nicotine replacement therapy has been widely used for many years to help people stop smoking and is a safe treatment.”

As we know, nicotine is not a problem in conventional nicotine replacement therapy, therefore it cannot be a bigger problem in vaping. Otherwise, we would see the same concern about thousands of people addicted to nicotine patches or nicotine gums. Rather, we see quite the contrary, as smokers are not satisfied with traditional cessation methods and therefore look to vaping as a means of quitting.

THE GATEWAY ARGUMENT AND SMOKING CESSATION: E-CIGARETTES HELP ADULTS QUIT

Countries such as the U.S., Canada, and the United Kingdom are recording their lowest-ever levels of daily smokers. The rate of U.S. smokers has declined from 21% of the population in 2005 to 14% in 2018. This is great news for all public health advocates, but unfortunately these results are rarely celebrated. Instead, we see politicians and media warning about a new wave of smokers due to vaping. It is claimed that vaping is a gateway for smoking.

The correlation between the introduction and the higher popularity of vaping and declining smoking rates suggests that vaping is an important innovation to help people quit smoking. The 2018 U.S. [National Academies of Sciences, Engineering, and Medicine Report](#) found that the smoking rate has decreased overall more rapidly since vaping became more prominent in the United States. The researchers concluded: “The inverse relationship between vaping and smoking was robust across different data sets for both youth and young adults and for current and more established smoking. While trying electro-

nic cigarettes may consequently increase smoking among some youth, the aggregate effect at the population level appears to be negligible given the reduction in smoking initiation during the period of vaping’s ascendance.”

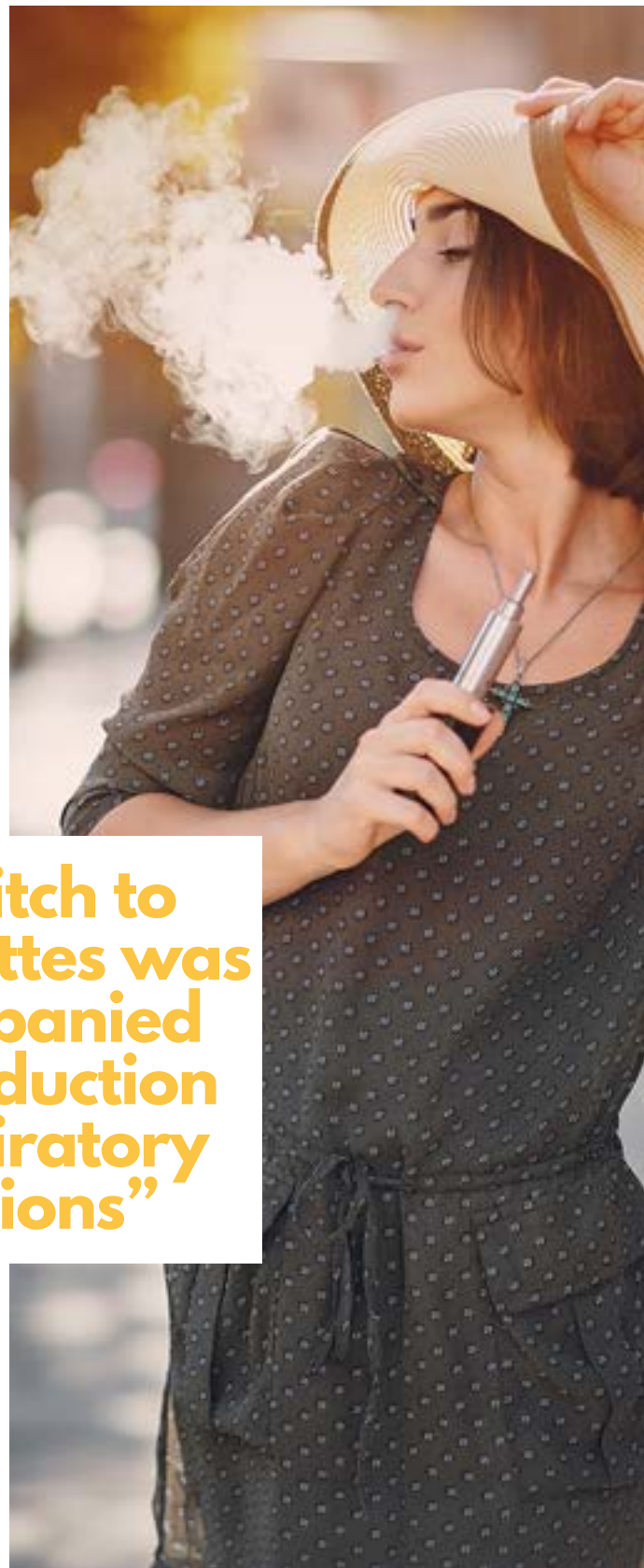
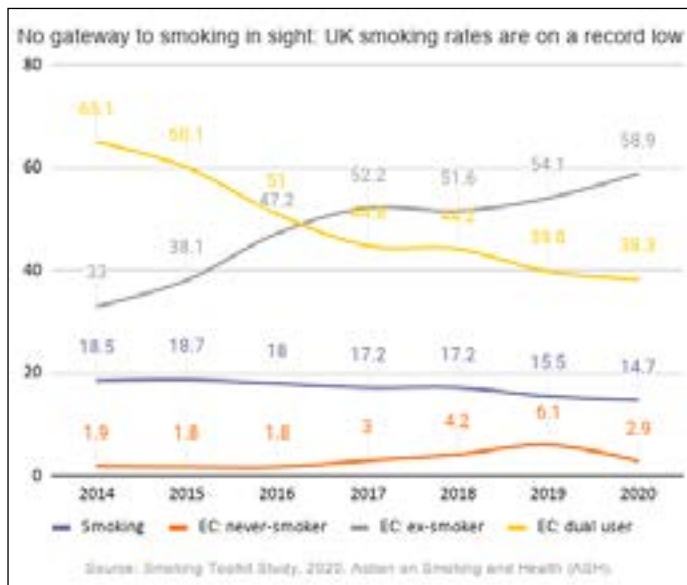
Moreover, the claim that non-smokers would get introduced en masse to smoking due to vaping seems not to be supported by data from the newest [Action on Smoking and Health \(ASH\)](#) UK report. It states that “only 0.3% of never-smokers are current vapers (amounting to 2.9% of vapers), down from 0.8% in 2019”

“Vaping was twice as effective as nicotine-replacement products in helping smokers quit.”

Another study published in the [New England Journal of Medicine](#) in 2019 assigned participants into e-cigarettes and nicotine replacement groups and found that vaping was twice as effective as nicotine-replacement products in helping smokers quit. Crucially, participants in the e-cigarette group were encouraged to experiment with e-liquids of different strengths and flavours. Among participants in the study who didn’t fully stop smoking, those in the e-ci-

garette group were more likely to reduce their smoke intake than those in the nicotine-replacement group. According to the findings, a switch to e-cigarettes was accompanied by a reduction in respiratory infections in an online survey and two case studies tracked nonsmokers with chronic throat and nose infections that resolved after they started to vape.

tobacco cigarettes and could help heavy smokers to quit. The effectiveness of e-cigarettes as a smoking cessation tool is undeniable, keeping in mind that it targets smokers as opposed to non-smokers. Recent trends framing e-cigarettes as a gateway to smoking do not stand up to scrutiny.



Moreover, [a study conducted by the University College London in 2019](#) analysed data from over 50,000 smokers from 2006 to 2017 and found that using e-cigarettes in order to quit was positively associated with the quit success rates, with every 1 per cent rise in use of e-ci-gs associated with a 0.06% increase in the quit success rate.

Vaping was also endorsed by Joachim Schüz, head of environment and radiation at the WHO’s cancer research agency, the International Agency for Research on Cancer during his speech at the The Committee on the Environment, Public Health and Food Safety of the European Parliament in February 2020. In his opinion, e-cigarettes are in “no way as harmful” as

“a switch to e-cigarettes was accompanied by a reduction in respiratory infections”

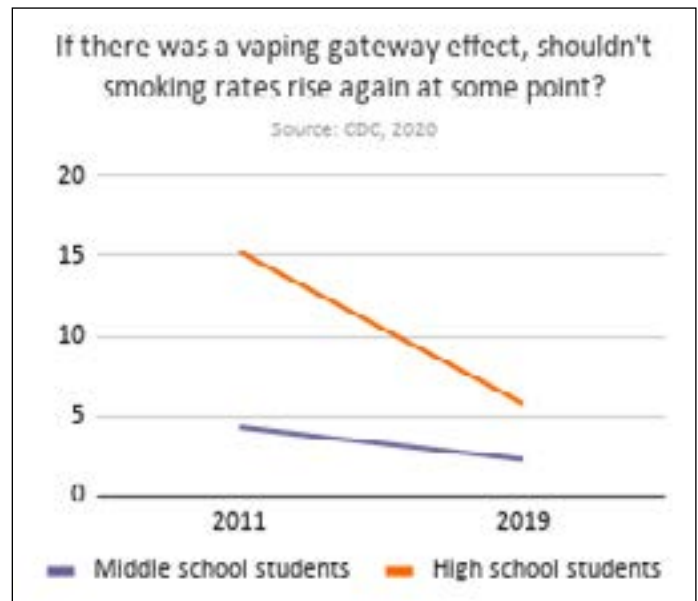
THE GATEWAY ARGUMENT AND ADOLESCENTS

In its recently published [opinion piece](#) on e-cigarettes, the SCHEER committee (a scientific advisory board of the EU Commission) stated: “there is strong evidence that electronic cigarettes are a gateway to smoking for young people”.

Such statements are quite surprising because many types of research came to a different conclusion. Colin Mendelsohn and Wayne Hall found in a recently published review in the [Journal of Drug Policy](#) that at least 70-85% of all adolescents try vaping after having already started smoking and that regular vaping is very rare amidst teenagers. The authors conclude furthermore that “contrary to the gateway hypothesis, vaping appears to divert a subset of youth at high risk of cigarette smoking away from smoking.

Another review of [fifteen studies](#) on the gateway effect came to the conclusion that “a true gateway effect in youths has not yet been demonstrated.” One must adjust for factors like anxiety, parental smoking behaviour, peer attitudes or household income. A further [metastudy](#) identified this problem with most studies on the gateway effect and stated that “the evidence is limited by publication bias, high sample attrition and inadequate adjustment for potential confounders.” [One study](#) which tried to measure those factors shows that adolescents who were less satisfied with their life, in general, were more likely to seek risky experiences and have a higher tendency to use illicit substances regularly. As such, e-cigarettes are not a gateway for smoking, but rather bad circumstances in teenagers’ lives lead to all kinds of risky behaviour. Therefore, lawmakers should focus on solving those problems and not

use the gateway argument to limit access to vaping products for responsible adult consumers.



In 2018, the U.S. Surgeon General Jerome Adams declared youth e-cigarette and vaping use an “epidemic”. The [2019 National Youth Tobacco Survey recorded](#) that 27.5% of high school students had tried vaping at least once in the previous 30 days, mostly flavoured pod devices. The SCHEER opinion also referenced this study quite prominently.

The problem which arises with this number is that it puts all consumers in one big basket. Clearly, it makes a difference if someone has one puff from a friend’s e-cigarette at a party or is a daily user. A closer look at the outcome of the survey shows that [only 2,1% of non-smoking individuals](#) surveyed frequently used e-cigarettes. The data from [Action on Smoking and Health \(ASH\)](#) UK reports similar findings and states that youth smoking rates are at an all-time low and youth use of e-cigarettes is rare and most users are current or former smokers. E-cigarettes are less appealing to adolescents than many believe.

THE FLAVOUR GATEWAY: BANNING FLAVOURS WON'T SOLVE THE PROBLEM

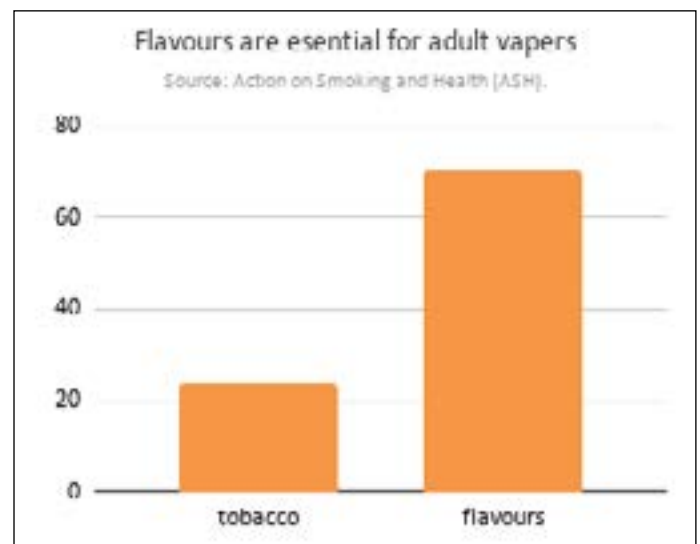
Earlier this year, Dutch State Secretary for Health, Paul Blokhuis announced [plans to ban all e-cigarette flavours](#) (except tobacco). Countries like Denmark and the U.S. state of California also have flavour bans set to come into force. One of the main arguments for these bans is that flavours are supposedly a gateway for non-smokers to start vaping and eventually become smokers.

This argument does not seem to align with the experience of actual vapers. According to the [Drug Strategy Household Survey](#) in Australia, the majority of adults (54%) (and even more young adults with 72%) try vaping out of curiosity, while vaping for taste was ranked last in the reasons people vaped. In the United States, the [PATH study](#) and the [CDC](#) found very similar patterns.

To the contrary, survey results from the [longitudinal survey study from Yale School of Public Health](#) found that “relative to vaping tobacco flavors, vaping non tobacco-flavored e-cigarettes was not associated with increased youth smoking initiation but was associated with an increase in the odds of adult smoking cessation”.

Banning flavours would not help deter young people from vaping because we cannot outlaw curiosity, but at the same

time, flavour bans hurt adult vapers.



In our previous research paper “[Why Flavours Matter](#)”, we found that banning flavours would have a profoundly negative effect on society, pushing smokers back to cigarettes or to the dangerous black market. Two-thirds of current vapers are using some form of flavoured liquids. Vapers prefer non-tobacco flavours over tobacco flavoured e-cigarettes, mainly because flavours don’t remind them of the taste of cigarettes. Because of this, researchers at [Yale concluded](#) that vapers who use flavours are 2.3 times more likely to quit smoking than those using tobacco-flavoured e-cigarettes. It is reasonable to assume, therefore, that restrictions and bans on flavours will significantly limit the usefulness of vaping as a cessation tool and will drive vapers back to cigarettes.

E-CIGARETTES ARE A GATEWAY OUT OF SMOKING AND SHOULD BE ENDORSED BY POLICYMAKERS AS SUCH

In conclusion, e-cigarettes are a gateway out of smoking rather than being a path towards smoking, as has been widely claimed. The anti-vaping narrative plays to the advantage of policymakers who seek to paternalise consumers and to limit their choices. Such an approach is disastrous and detrimental to the health of heavy smokers for whom vaping has become a life-saving tool.

Most anti-vaping arguments fail to take into account the fact that e-cigarettes target tobacco consumers. This is similar to sugar consumption by people who suffer from diabetes: sugar substitutes are not a gateway to sugar because it is because of the harmful effects of sugar that they had to switch. Sugar substitutes are not blamed for increased sugar consumption, and e-cigarettes that serve a similar purpose should be equally endorsed.

Minors should not be allowed to purchase vaping products, and so it is important to create and sustain the conditions under which there is no incentive for them to look for e-cigarettes elsewhere. Vaping regulations should be smart and ensure the necessary age restrictions are put in place. Reducing black market activities and illicit trade are vital to reducing underage vaping. Banning e-cigarettes or limiting access to instrumental parts of vaping

like liquid flavours for adult consumers in an attempt to prevent minors from taking up vaping is a road to nowhere.

Similarly, in the wake of the vaping illnesses that dominated headlines in the U.S. last year, there is sufficient evidence proving that the vast majority of reported illnesses associated with vaping were caused by illicit cannabis vape cartridges sold on the black market, not those purchased legally at licensed retailers. Read our [previous research](#) on this topic addressed to lawmakers.

Relaxing branding and marketing restrictions is also a crucial step towards ensuring vaping helps even more tobacco consumers stop smoking by curbing illicit trade. Using e-cigarettes in order to quit has been proved to be positively associated with quit success rates, and turning a blind eye to these facts by limiting distribution of information about vaping is irrational and inconsistent with our shared commitment to improving wellbeing across the world.

The Consumer Choice Center calls on policymakers to reconsider their approach to vaping. Despite many voices seeking to undermine vaping as a gateway out of smoking, the evidence is sound: vaping saves lives.

Our recommendations:

- Strongly commit to the general concept of harm reduction
- We need an on-ramp for harm reduction that is vaping: endorse e-cigarettes as an effective tool to help smokers move to a safer alternative to consume nicotine and eventually quit if they desire to do so
- Guarantee access to vaping products for adults: affordability and variety must be ensured
- Allow advertising of e-cigarettes in print, on television and radio in order to inform current smokers better of the harm-reducing potential of vaping nicotine, to reduce illicit trade and prevent adolescents from turning to the black market and conversely take up vaping

About the Authors:



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Maria Chaplia is the European Affairs Associate at the Consumer Choice Center. She holds a Master's degree in Law and Economics and studied econometrics at the London School of Economics and Political Science. Maria's views have been featured in the Financial Times, Euractiv, Huffington Post, CapX, Spiked, and many more. International trade is one of Maria's greatest passions, but she's also particularly keen on life-style economics, international trade, sharing economy, and feminism.

In 2016, Maria co-organised a protest in Ukraine against taxpayer-funded stipends outside the Ministry of Education and Ministry of Finance. She has also co-founded two Ukrainian educational charities. She put together multiple large-scale events and was awarded the European Students For Liberty Student of the Year Award.

Michael Landl

Michael Landl is the director of the World Vapers' Alliance. He is from Austria and based in Vienna. He is an experienced policy professional and passionate vaper. He studied at the University of St. Gallen and worked for several public policy outlets and as well in the German Parliament. Therefore, he is delighted to bring this experience to WVA's network and to the vaping community in general.





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