



THE XTC SHOP AMSTERDAM EDITION

Results report
May 2025

Three complementary studies into the publics' perspectives on the regulation of ecstasy (XTC)

COLOFON

This report is the result of a unique collaboration between academics, artists, harm reduction practitioners, drug policy experts, policy makers and - last but not least, the general public. Our deep gratitude goes out to the City of Amsterdam and Major Femke Halsema for their support and bold vision on drug policy reform.

With this report, the authors hope to contribute to a better informed public debate about the regulation of psychoactive substances such as ecstasy - throughout this report also referred to as 'XTC' or 'MDMA'.

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Transform Drug Policy Foundation (UK): 'How to regulate stimulants: a practical guide', 2020.

Report:

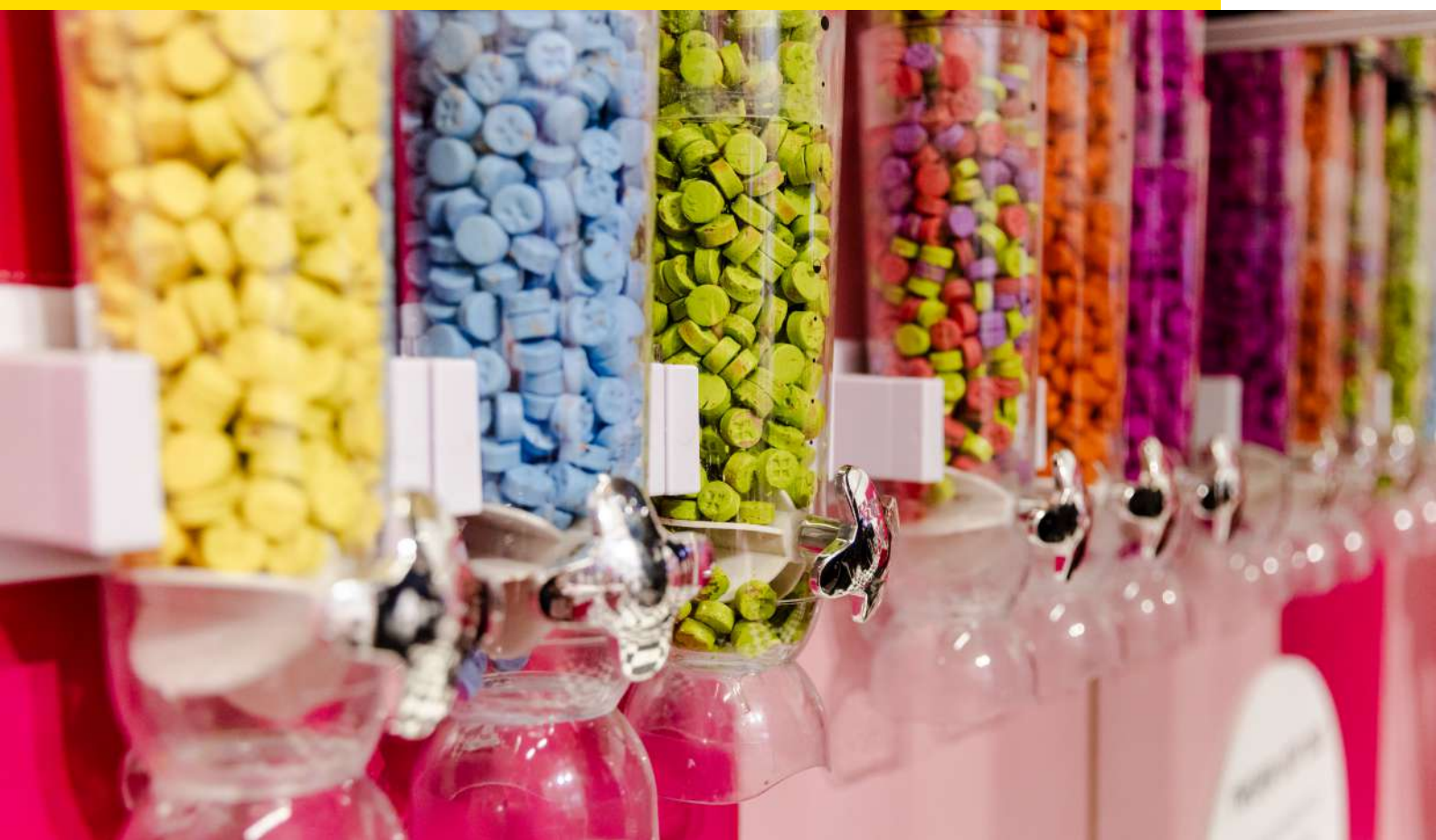
Report layout: Daniela Fonseca
Photo credits: Westergas
Published by: Poppi Drugs Museum
Funded by: The City of Amsterdam

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CONTENT

Colofon	2
Context	4
The XTC-shop in Amsterdam	7
An immersive, public experiment	7
The pharmacy	8
The smartshop	8
The club	8
Educational experience	9
Visitor count	9
Questions and objectives	10
Methods	11
Exit conversations	11
On-site survey	11
Changing perspectives study	12
Results	13
Results exit conversations	13
Sub conclusions exit conversations	16
Onsite survey results	16
Changing views: pre- and post-test	17
Sub conclusions onsite survey	18
Results changing perspectives study	18
Sub Conclusions changing perspectives study	20

Overall conclusions	21
Acceptability in Dutch society	21
Fostering dialogue	22
Awareness of a societal challenge	22
Ideas to advance drug policy reform	23
Innovative education	24
The impact of art	25
Recommendations	26
Methodological limitations	28



CONTEXT

The Netherlands is a leading producer of MDMA¹. The substance is also widely used and its consumption – in some circles - socially accepted. In its crystallised form or as the core ingredient of ecstasy pills - referred to as 'XTC' in the Dutch context and throughout this report - MDMA is among the most popular party drugs. Over a million Dutch adults have once in their lifetime tried XTC and 3.8% of the Dutch population has used it in the year 2023². Compared to other illicit substances, XTC is considered to have relatively low health risks³.

However, the XTC trade fuels violence, tax evasion, and corruption, with ordinary citizens increasingly drawn into production⁴. Illegal waste dumping also harms the environment⁵. Unexpectedly, crackdowns on supply seem to strengthen organised crime⁶. Meanwhile, MDMA is gaining traction in therapy, especially in trauma therapy⁷.

Consecutive studies by the ThinkTank MDMA (2020)⁸, DenkWerk (2022)⁹ and Poppi Drugs Museum (2023)¹⁰ all suggest that the regulation of XTC is expected to have a positive impact on several public health and safety-related indicators. In a serious attempt to discuss regulation on an (international) political platform, Amsterdam's Mayor, Femke Halsema, organised the international conference 'Dealing with Drugs'¹¹ in January 2024. The conference aimed to add a deeper layer to the debate on responsible regulation. A few months later, a Dutch State Commission for MDMA published its report¹². Although the commissions' advice is primarily aimed at making MDMA medically accessible, the committee also looked at recreational use. According to the committee, there can be no regulation for the recreational market 'as long as there is no certainty about reducing crime and the possibilities of regulation have not yet been worked out in concrete terms'.

Poppi's Amsterdam edition of the XTC-shop, organised between 15 October 2024 and 24 November 2024 aims to contribute to this last point. In an adapted and improved version, this public art experiment helps to envision concrete options of the sale of legalised XTC.

¹ A very rough estimate is that nearly a billion ecstasy pills are annually produced in the Netherlands. This number is based on research led by Pieter Tops via the Dutch Police Academy (2018). The number was later contested as being an exaggeration. Still, seizures of illegal labs for synthetic drug production support the claim that the Netherlands play a key role in the international ecstasy trade: <https://www.politie.nl/binaries/content/assets/politie/nieuws/2023/april/nationaal-overzicht-drugscijfers-2022.pdf>

² <http://www.trimbos.nl/kennis/cijfers/drugs/#xtc>

³ <https://www.rivm.nl/bibliotheek/rapporten/340001001.pdf>

⁴ <https://repository.wodc.nl/handle/20.500.12832/3149>

⁵ <https://www.rivm.nl/publicaties/gevaren-van-dumping-en-lozingen-van-drugsproductieafval-voor-kwaliteit-van>

⁶ See, for example, S. Snelders, *Drug Smuggling Country* (Zutphen: Walburg Press, 2022); *Drug Smuggler Nation* (Manchester: Manchester University Press, 2021, 2023).

⁷ <https://arq.org/mdma-therapie>

⁸ <https://denktank.gitlab.io/mdma-policy-mdmca-website/>

⁹ <https://denkwerk.online/rapporten/drugs-de-baas-juni-2022/>

¹⁰ <https://poppi.amsterdam/wp-content/uploads/2023/04/XTC-rapport.pdf>

¹¹ <https://www.amsterdam.nl/dealingwithdrugs/>

¹² <https://www.rijksoverheid.nl/actueel/nieuws/2024/06/06/staatscommissie-mdma-ziet-mogelijkheden-voor-therapeutische-toepassing-mdma>

Responsible regulation

In everyday language, 'regulation' is often interpreted as the unrestricted legalisation or release of a substance to the market. This interpretation causes a lot of confusion and fierce opposition to this idea. However, according to a definition of Transform Drug Policy (UK), "regulation" describes how states legally control the market for a particular substance or related activities. This control usually includes a combination of licences (i.e. the conditions under which production or retail is permitted), tax systems (which can set retail prices) and global controls on aspects such as marketing, packaging requirements or sales to children. This report uses this definition when discussing the (different) regulation of XTC. In this report, we also use the term 'legalisation'. By this, we mean that XTC production, trade and possession are no longer punishable but (under certain conditions) allowed for non-medical, recreational use. The drug is thus removed from the illegal circuit and 'legalised'.

For more reading about the rationale behind responsible regulation, see for example the 2018 report 'Regulation: the Responsible Control of Drugs' by the Global Commission on Drug Policy.

¹³ <https://www.globalcommissionondrugs.org/reports/regulation-the-responsible-control-of-drugs>





THE XTC-SHOP IN AMSTERDAM

The 'XTC-shop' was first conceptualised by Poppi Drugs Museum in 2022, in close collaboration with creatives Vincent Schoutsen and his collective 'Het Uitvindersgilde' and Corné van der Stelt, and with researchers from Utrecht University. The first edition of the XTC-shop took place in the city center of Utrecht - one of the four major cities of the Netherlands¹⁴. The XTC-shop travelled to Enschede (2023) and the city of Gent in Belgium (2024) before it landed in Amsterdam in the fall of 2024.

The Amsterdam edition received the full support of the City of Amsterdam, as the concept fits Mayor Halsema's agenda to push for drug policy reform. Alongside Utrecht University, the University of Amsterdam also contributed to the implementation of on-site research.

An immersive, public experiment

Mixing art, science and education, the XTC-shop renders three scenarios for the alternative regulation of the sale of MDMA to consumers: a pharmacy, a smart-shop and a club setting. Each outlet has its own sales conditions and visitors interact with these points of sale through the 'immersive design' of the art installation. The public is literally immersed in the - fictitious - experience of buying XTC. This unique experience facilitates an open, non-moralising and non-polarising dialogue. The sales conditions include variations where it comes to product control¹⁵, vendor and outlet control¹⁶, purchaser/consumer control¹⁷ and marketing¹⁸.

¹⁴ <https://poppi.amsterdam/wp-content/uploads/2023/06/XTC-shop-results-report-Poppi.pdf>

¹⁵ covered by health insurance yes/no, price, dosage, form (e.g. pill, liquid, etc)

¹⁶ appearance of the location, appearance of the staff, licensing/staff training, opening hours.

¹⁷ age limit, identification, need for a doctors' prescription, purchasing limits per users, type of health advice (safe use, avoidance of risks, level of medicalisation).

¹⁸ advertising, type of packaging, display of the product/product availability, product form and colour.

To further enhance the experience, the Amsterdam edition worked with volunteers who staffed the XTC-shop. Visitors could decide to just look around in the XTC-shop, in which case they were encouraged to fill in the on-site digital survey. However, they could also decide to engage in the 'full experience', during which the staff used a fixed script to draw people into a deeper level of engagement. To compensate for material costs, we requested a 5 euro contribution for the full tour. For those who decided to do so, a prefixed set of questions was asked by the staff, who were trained in a scripted role play.

The pharmacy

When accessing the location, visitors entered the pharmacy setting first. Here they found a rather sterile environment and a staff member in a white doctor's coat behind a counter. In the pharmacy setting the script included questions about the previous use of XTC, whether someone had a family history of medical or mental health issues, the use of medication or use of other drugs and alcohol and whether the person would allow the pharmacist to report the purchase of XTC to their health insurance. As a last action, the person was asked to weigh themselves on a scale next to the pharmacists desk. People could answer these questions with a simple yes or no, but each question was followed by an educational health message about either the safer use of XTC or specific risks associated with its use. Questions were purposefully designed to be quite intrusive, thereby representing a 'high-threshold' setting for the sale of XTC. Upon completion of this first set, the person received a personalised label with a risk-profile and advised dose of MDMA.

The smartshop

Visitors were consequently directed through a door, where they entered a smartshop. This set was filled with bright colours and rather overexaggerated, enticing messaging about XTC. In the smartshop setting, reception was a lot more informal, representing a lower threshold for sales. The staff member wore colourful clothing and sunglasses. The staff member did request visitors to show their identification to check whether someone was of age. People were then asked to do a breathalyzer test to see if they were already under the influence of alcohol. When they were sober they were given an age coin to draw a package of XTC from the vending machine in the third setting: the club.

The club

This set was built behind a thick curtain and essentially was just a dark space where techno music was played. As soon as someone drew their XTC from a vendor machine, the music automatically turned louder. This third set represents the lowest threshold outlet, with very limited checks and balances in place to keep people safe and no staff member present to give health advice. It also represented the only outlet of the three where people could buy their XTC on the location where they will (immediately) use it - creating risks for impulse- and poly drug use.

Educational experience

Compared to the original set-up in Utrecht, the Amsterdam edition focused more on the immersive experience for people, in particular with the introduction of the staff members who engaged in role play. There was also a stronger focus on education about XTC. And on the top floor of the location, we hosted a photo exhibition about the production of XTC and the associated crime and environmental harms. In this new edition, we also invested more in the dialogue with visitors. The staff were trained extensively and once people completed the full tour or 'experience' they actively engaged in non-scripted 'exit conversations'. They asked open questions about personal views towards regulation and people's previous engagement with the topic. The various sales conditions were addressed and elaborated upon, and people were actively invited to fill in the digital survey. The exit conversations were recorded and analysed by Utrecht University researchers (see below).

Visitor count

Between 15 October and 24 November 2025, a total of 2.125 people directly engaged with the XTC-shop. 363 people - 17% of all visitors - chose to enter into the 'full experience' - a good number of them in pairs. In addition, 1.443 people visited the XTC-shop without taking the full tour. They did engage in each of the outlets and 371 of them filled in the digital survey (17% of all visitors). 319 people entered the XTC-shop and left after a quick, curious inquiry. An estimated 10% of the people who engaged with the XTC-shop entered thinking it was a real point of sale and entered the shop with the intention to buy XTC.



QUESTIONS AND OBJECTIVES

Similar to the first edition in Utrecht, the central research question within the XTC-shop in Amsterdam was:

Under what conditions do visitors to the XTC shop in Amsterdam consider the regulated sale of XTC acceptable?

The core study objective was to evaluate societal responses and commentaries on the three scenarios of regulated sales of XTC and to harvest in-depth ideas for implementation of the legalised sales of XTC in a real-life setting. We took a particular interest in people's views as to how a legalised model can compete with the current illegal market model - a model that is highly efficient, offers accessible and high quality drugs and that yields high customer satisfaction in the context of the Netherlands.

The XTC-shop had several additional objectives:

- To generate social and political dialogue and to depolarise the conversation around regulation by offering visitors concrete future scenarios in artistic design;
- To increase awareness among the general public about the Dutch societal challenges around XTC production, sale and consumption;
- To invite visitors to think along with alternatives to the current drug policy and to harvest their perspectives and ideas to advance policy;
- To provide information about MDMA and its (health) risks in an innovative manner;
- To understand to what extent an art installation can be instrumental in broadening people's perspectives and to generate public support for a complex topic such as drug policy reform and responsible regulation.



METHODS

Three different on-site studies measured visitors' views about both the responsible regulation of MDMA/XTC, and on the impact of an art installation such as the XTC-shop on people's opinions and perspectives.

Exit conversations

The first study, led by Utrecht University researchers, was qualitative and consisted in (exit) informal conversations of 5/10 minutes with 135 visitors while they were leaving the XTC-shop, both after completing a free tour or a full experience. Researchers and previously trained on-site staff held these short conversations with individuals or small groups, exploring their views on the three visited settings and, in case they favoured regulation, on the conditions in which regulated XTC could, according to them, successfully compete with the black/illegal drug market. Other eventual observations or remarks were also explored, and in almost all cases their country of origin was inquired. The conversations finished by asking consent to eventually use these interactions in the ongoing research, obviously guaranteeing anonymity.

The conversations were voice-recorded by the interviewers using software (Otter.ai) only after they took place - again to secure anonymity and preserve the natural flow of the interactions. These one/two minute recordings were made immediately after the conversations to capture the key messages and some interesting quotations, and they were further transcribed for thematic qualitative analysis.

On-site survey

The second study was a quantitative survey that resulted from a collaboration between Poppi and the University of Amsterdam. Visitors could enter the survey via a touch screen in the smartshop setting or via QR codes that were available throughout the XTC-shop. Staff encouraged people to fill in the survey after they had visited the three settings. In the majority of cases, visitors filled in one survey on behalf of themselves and their friend(s). Questions often led to lively debates between pairs or groups of visitors, before the final answer was inserted. People who completed the entire survey were rewarded with a fun sticker sheet.

The survey was improved in several ways since the original Utrecht edition in 2022. The first important change was that questions were not connected to one of the three sets, but were generalised. The questions addressed the four main categories of sales conditions: product control, vendor and outlet control, purchaser/consumer control and marketing. A pre and post question was added to measure whether people's views on responsible regulation had changed while filling in the survey and deciding on the most ideal sales conditions. No data that allows for identification was requested. People were asked about their age-category, country of residence, occupation and political preference. For those visitors who worked in pairs to fill in the survey, we can assume that the person typing left those particular details.

The survey was presented in a visually attractive way and interactive touches were added to engage people as much as possible: <https://XTCshop.azurewebsites.net/>. A total of 371 surveys were completed.

Changing perspectives study

A third quantitative study, carried out by the University of Amsterdam, looked into the impact that a visit to the XTC-shop - designed as an educational art installation - had on the knowledge and attitudes of people. The study was approved by the ethical committee of the psychology department. Questions included a set of demographics (age and gender), a question about user experience (ever use of XTC/MDMA), a pre and post measurement on people's attitudes towards regulation and the importance they assigned to the topic, closed ended questions about the point of sales and the use of marketing and whether the expo had an impact on their knowledge about the topic. The survey also allowed us to measure the duration of someone's visit.

The visitors were asked to fill in a questionnaire while they walked around the exhibition. The first side of the questionnaire was filled in as soon as they walked in and the second side was filled in just before they left. This allowed us to study how seeing the exhibition influenced people's attitudes on drug regulation and the importance they attributed to the topic. The participation was voluntary for the visitors.



RESULTS

Results exit conversations

All visitors interviewed were positive about the XTC-shop, even those who opposed regulation, arguing that it was a suited and fun experience to discuss the issue. Despite the fact that 85% of the 135 visitors interviewed at the end of their visit favoured some form of regulation, they were divided regarding their preferred setting for XTC sales. In line with findings from the survey (see the next section) and the earlier edition of the XTC-shop in Utrecht, only a very small minority (5%) agreed with the idea of selling XTC in a club or party, so at the venue where XTC is instantly consumed. The main argument against it was the fact that potential buyers could be intoxicated or induce others to use. As explained by several visitors:

“Because people are also drinking alcohol, and taking many substances. And there’s a fine line between using and promoting XTC use within these scenes, even though it’s widely taken.”

“People might already be high or drunk and overdose, or drug other people.”

When visitors supported legal sales at a club, they were critical towards unattended vending machines:

“Would trust certain vending machines if they were in some way certified by the government, because then they would know what they’re taking.”

“The vending machine in the club is a good idea, but maybe selling it at the bar in a club could be an idea so someone at the bar has to check if you’re sober and if you’re 18 plus, so that the bar personnel gets to decide if you can buy ecstasy or not.”

One visitor and experienced XTC user was in fact very supportive of linking XTC to the dance industry:

“Selling should be connected with the electronic circuit, not with pharmacies or obscure shops where nobody wants to go. Listen to the users, not to the so-called experts who never tried MDMA and don’t know how the market works, what exists now.”

Regarding the pharmacy and the smartshop, visitors were divided and had arguments both against and in favour of selling in these settings. Those who favoured the pharmacy were usually less experienced users and indicated that it offers much more safety, with information about risks:

“I wish that I had a bit more information before actually taking ecstasy, to know how much is too much, and I feel like that could have prevented me from going in this spiral.”

“The pharmacy could be a nice one, especially for people who don’t know much about taking XTC.”

Another reason to favour the pharmacy was the higher levels of governmental control on purity, quantities or age, with a visitor even proposing a kind of ‘XTC passport’

“More control from the government, so it knew who would be selling it, and who was using, how much.”

“They need to be stricter, like having a drug passport obtained through assessments beforehand.”

In sum, the pharmacy offered, as put by one visitor, a “higher threshold, which would be the best way, asking a lot of questions so you’re completely sure that people will use it in a safe way”.

More experienced users however did not see the pharmacy as a realistic option where users would purchase XTC for recreational use:

“The pharmacy scenario is a bit of an overkill, because the amount prescribed in milligrams is too low to actually have a nice high, and then people will just turn to the black market, where they can order more pills at a better price rate as well.”

“Very high threshold, then just calling a dealer would be easier.”

“As a pharmacist, I wouldn’t like to sell it. Drugs serve a different purpose, not for health. it’s something dangerous and risky.”

In some way inverting the above arguments, other visitors favoured or opposed the smartshop as a place to sell XTC. Those who liked the smartshop, mainly emphasised the lower threshold in terms of controls and the safety standards and market conditions compared with the illegal market:

“If a legal market would provide cheaper prices, higher quality and no limitation of time to buy it, then people will switch from the black to the legal market.”

“It also should be delivered, because, of course, the dealers come very easily, so in order to compete with the dealers, you have to deliver.”

Those who were critical towards the smartshop claimed on the contrary that the threshold was too low and were concerned about easy access that would also attract tourists:

“It shouldn’t be with the fun colours and advertisement, but a bit more discrete.”

“It would promote the use of accessing more because it will feel more approachable to go to buy it if it’s in a physical shop, rather than the stigma of buying it through an illegal market online.”

In fact, and again in line with previous findings from the 2023 edition of the XTC-shop in Utrecht, a large group of visitors actually supported a mix of a pharmacy and a smartshop as the best and more realistic alternative to the illegal market. That hybrid setting would provide high levels of safety and information, but would avoid medicalisation, stigmatisation and patronising of users:

“The smartshop would be the best because it’s a bit more relaxed, but ideally it would have someone like a pharmacist in there to give information on how to take it safely.”

“A special shop, but not like those smartshops in Amsterdam, but with trained staff.”

A final interesting key finding of the exit conversations refers to the cultural/national variations of the visitors interviewed, roughly half being native Dutch and half visiting the shop from at least 23 other countries, either as tourists or migrants living in the Netherlands. Dutch visitors from all ages tended to favour less strict forms of regulation like the smartshop or the club, while visitors (mostly tourists) coming from countries with very repressive drug laws seemed to support regulation with higher thresholds like pharmacies, or no regulation at all. Some foreign visitors argued that the XTC shop initiative would be unthinkable in their own countries, while others claimed that they trusted Dutch XTC dealers, but not those at home. It would be interesting to further research the influence of culture and/or nationality on people’s views on drug policy reform and the regulation of psychoactive substances.

Sub conclusions exit conversations

The findings reveal a generally positive reception of the XTC-shop experience, even among those opposed to regulation, highlighting its value as a platform for informed dialogue. While a strong majority of visitors supported some form of legal regulation, opinions varied on the ideal setting for sales. Clubs and parties were largely rejected due to concerns over intoxication and peer pressure, though some supported tightly controlled vending options. Pharmacies were seen as safe and informative by less experienced users, but criticised by more seasoned users as overly restrictive and unrealistic. Smartshops emerged as a more accessible alternative, though concerns over low thresholds and commercialisation were noted. A hybrid model combining the safety of pharmacies with the accessibility of smartshops was the most widely supported option. Cultural background also influenced perspectives, with Dutch visitors favouring lower-threshold settings and foreign tourists from countries with drug repressive policies often advocating stricter controls, reflecting broader international contrasts in drug policy and perceptions. Overall, the study underscores the importance of user-centered, context-sensitive approaches to XTC regulation.

Onsite survey results

Among the 371 respondents for this second sub-study, 63% have experience with XTC and answered they either 'used it a few times' (14%) or that they 'have used it or still use it' (49%). 13% of the respondents would consider using XTC when it would be legal. 20% of the respondents would never use XTC, even when it would be legal. 4% did not want to disclose their personal experiences with XTC.

The survey consisted of questions that related to the various sales conditions for legalised XTC. Regardless of their views on regulation, respondents were asked to think about these conditions in the imaginary circumstance of regulated XTC.

The majority of respondents (75%) thinks people who want to buy XTC should show their identification, similar to how this is done in the Netherlands to confirm someone's age when buying alcohol. Only 17% would be in favour of introducing a system that allows the monitoring of people's use. 8% of the respondents would like to have guaranteed anonymity. Interestingly, people were very divided on the question whether a person should be required to show their medical record to avoid dangerous combinations/interactions with other substances and medication. Half of the respondents thought this was a good idea, but the other half opposed this option. Respondents did find it important that a point of sales has a specific licence to sell XTC (55%) or at least specially trained staff (44%). When asked what type of information someone should receive when buying XTC, 52% mentioned information about safe and responsible use, 33% mentioned the option to offer similar information to that of regulated medication. Only 15% of the respondents mentioned they would like information to focus more on the risks around use.

Respondents seemed to be quite aware of the importance of dosing XTC with a level of precision, favouring pills with a low dose (30mg (14%), 50mg (33%), 100mg (27%), 150mg (7%), unsure (19%)). A minority of the respondents favoured 'no limits' to the number of pills someone would be able to purchase (11%), with the majority of visitors in favour of 2 pills (31%) or a maximum of 5 pills (42%).

In general, respondents were quite cautious when deciding on sales conditions. 83% thought it should not be possible to buy XTC under the influence of alcohol or another substance. And 89% oppose any form of advertisement for a substance such as XTC. This includes a hesitance to introduce attractive products that contain MDMA, such as drinkable shots, candies and tinctures and essences. The majority of visitors are in favour of selling XTC in the form of a pill (61%).

Similar to the respondents in the exit conversations study, participants in this study preferred the sales of XTC to take place either in a pharmacy (mentioned by 39%) or in a smartshop (mentioned by 47%). Their combined answers to the survey suggest a similar hybrid scenario, seeing the clear opposition to marketing and advertising. This might also be the preference of the 7% that ticked the 'other' option for their preferred scenario. Only 7% of the respondents in this survey mentioned they would agree to sales of XTC in a club or bar.

Changing views: pre- and post-test

In the beginning of the survey we asked respondents how they relate to XTC and whether they are in favour of regulation. When asked whether they were in favour of regulation (pre-test), 70% of the respondents answered 'yes', 4% answered 'no' and 26% were 'in doubt'.

We repeated this question at the end of the survey to see whether respondents changed their views on regulation after thinking more in-depth about the specific sales conditions. When asked whether they were in favour of the regulation of XTC under the conditions they themselves chose in the survey, 81% of the respondents answered 'yes', 2% answered 'no' and 17% were 'in doubt'.

This means that after specifying the conditions of sales, the percentage of respondents that favour the regulation of XTC increased from 70% to 81%. This effect was significant¹⁹ and was primarily driven by participants switching from the 'maybe' to the 'yes' category.

When looking at people's political preferences as a potential predictor of their views on regulation, we found that people with a political orientation on the left side of the political spectrum were most inclined to favour the regulation of XTC (83% in favour, 3% against, 14% in doubt), followed by people who described their political orientation as more central or liberal (76% in favour, 1% against, 23% in doubt). Unexpectedly, among people who self-described as politically on the right side of the spectrum or even the far right side, 40% still favoured regulation, 20% opposed it and 40% was in doubt²⁰.

Another interesting finding was that young visitors of the XTC -shop were less likely to be in favour of regulation, with a high percentage among them being in doubt about the matter²¹.

¹⁹ according to a chi-square test ($\chi^2=203$, $df=4$, $p<.01$)

²⁰ Among people who did not self-report their political position, 61% were in favour of regulation, 5% were against it and 34% was in doubt.

²¹ 18-24 years old: 57% in favour, 5% against, 38% in doubt, 25-34 years old: 74% in favour, 3% against, 24% in doubt, 35-44 years old: 84% in favour, 2% against, 14% in doubt, 45-54 years old: 92% in favour, 0% against, 8% in doubt, 55-64 years old: 89% in favour, 5% against, 5% in doubt, 65+ years old: 86% in favour, 0% against, 14% in doubt.

In this survey people were asked to note down their country of residence. Unlike the respondents in the exit conversation study, this survey did not find an effect of visitors' country of residence. The survey did not inquire about people's nationality, but based on residency, no differences in views towards drug regulation were found between people who lived in the Netherlands or who lived in other countries. However, this is a topic that needs more exploration, for example by organising the XTC-shop in another, perhaps more conservative, country²².

As for their motivation to favour regulation, 32% of the respondents to the survey mentioned the reduction of crime, 20% mentioned their concern for the environment and 46% of respondents believe the regulation of XTC will offer better options to promote safe use.

Sub conclusions onsite survey

The onsite survey indicates broad support for XTC regulation. Most favoured clear control measures like age verification (75%) and licensed sales points (55%), while only a minority supported the use of tracking (17%) or mandatory medical record checks (50/50 split). Information at the point of sale was seen as important, especially guidance on safe and responsible use (52%).

Respondents preferred low-dose pills and limited purchases, with strong opposition to buying under the influence (83%) and to advertising or commercial products like XTC-infused candies or drinks (89%). Pharmacies (39%) and smartshops (47%) were the most preferred sales locations, suggesting support for a balanced, non-commercial model.

Notably, support for regulation increased from 70% to 81% after respondents considered specific conditions, highlighting the impact of informed reflection. Key motivations included reducing crime (32%), protecting the environment (20%), and promoting safer use (46%).

Results changing perspectives study

The third study, implemented by the University of Amsterdam, looked into the impact a visit to the XTC-shop as an educational art installation, had on the knowledge and attitudes of people. A total of 221 participants completed the questionnaire.

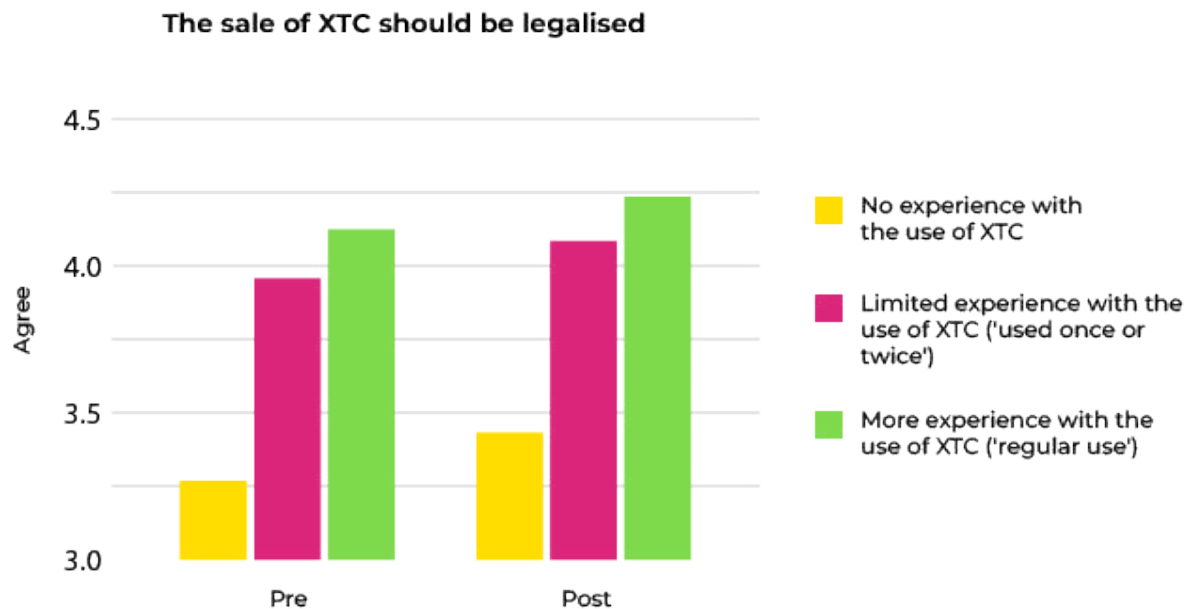
Similar to the respondents in the other two sub-studies, most of the sample (56%) in this study were regular users of XTC. An additional 26% mentioned they had used XTC 'once or twice', 16% had 'never used' and 9% did not want to disclose this information. However, it is unclear whether this high percentage of people with user experience presents a larger bias in the population of Amsterdam or is selection bias for the people that were motivated to visit the exhibition (see the section on 'study limitations').

The majority of the participants were in favour of legalisation of the sale of XTC. The data shows that people became more positive about the legalisation of the sale of XTC after the exhibition²³. The exhibition thus had a weak but significant influence on the attitudes of the participants. The attitudes also had a positive association with how often people had used XTC.

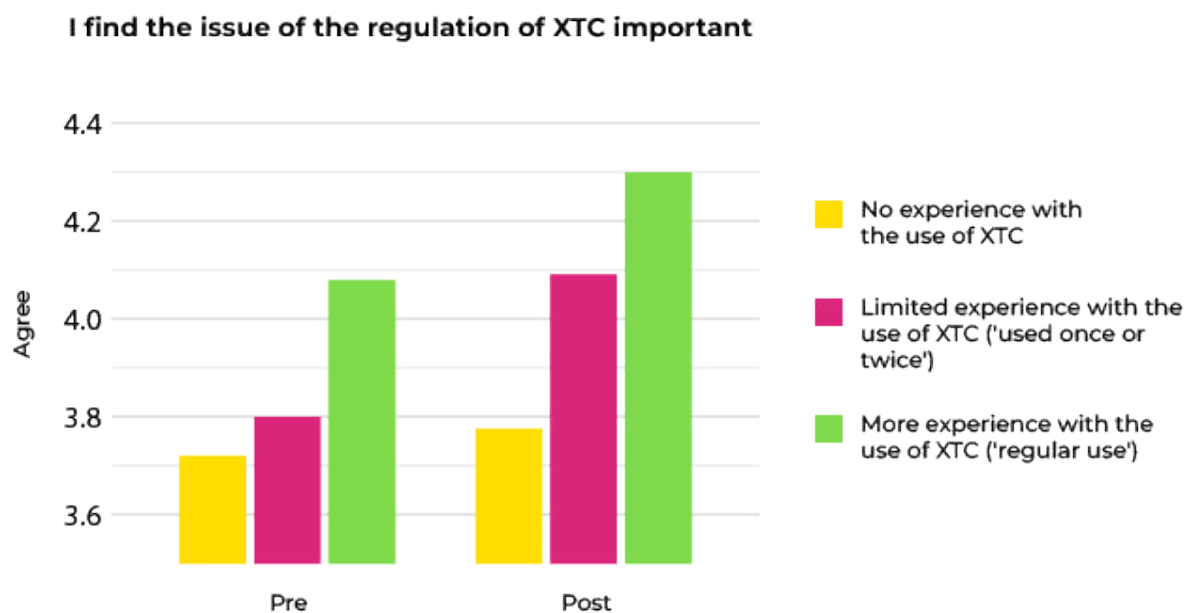
²² In the spring of 2024 the xtc-shop was hosted in the city of Ghent, Belgium. It is generally assumed that Dutch people would have comparatively more progressive views towards regulation, seeing the country's history with relatively progressive drug policy. However, the respondents in Ghent showed remarkably similar views. A more in-depth comparison still needs to take place.

²³ ($F(1, 207) = 7.07, p = .008$)

Regular users felt more positive about legalisation compared to those who have never used or have only used one or two times²⁴, something that was also found during the exit conversation study. Nevertheless, all groups were positive about legalisation and became slightly more positive after seeing the XTC-shop installation.



Similarly, people also found the issue more important after the exhibition²⁵. Again, this depended on how often people had used XTC. Regular users found the issue more important and even more so after visiting the exhibition, compared to those who have never used or have only used one or two times²⁶. The effect was not significant in the group who had never used XTC.



²⁴ ($F(1, 207) = 26.34, p < 0.0001$)

²⁵ ($F(1, 207) = 22.08, p < .001$)

²⁶ ($F(1, 206) = 11.1, p = 0.001$)

Participants were asked what they thought about specific sales conditions. Similar to the other two studies, this study found that the majority of the respondents supported the sale in pharmacies and smartshops. On the contrary, bars and clubs should not have permission to sell XTC and in any circumstance, sale should not be allowed for people younger than the legal age. Most agreed that marketing should not be permitted.

After visiting the XTC-shop, most visitors mentioned they were better informed about the regulation of XTC.

The changing perspectives study compared preference between groups of people with no user experience, limited experience (used once or twice) and people with more extensive user experience. All three groups offered similar views towards their preferred sales conditions and outlets. For instance, the majority of the participants thought that marketing and the sale in bars or clubs should not be permitted. They also agreed that there should be an age limit. The sale in pharmacies was supported to a similar extent by all groups, while people were divided about the need for a medical prescription. Similar to the exit conversation study, regular users seem to be more open towards the sale in smartshops while those that have never used XTC were against this and rather preferred the pharmacy setting. But this difference was not significant. No differences in views were found between age groups or people from different genders.

Sub Conclusions changing perspectives study

The third study, conducted by the University of Amsterdam, found that visiting the XTC-shop installation had a small but significant positive impact on participants' knowledge and attitudes toward XTC regulation. While the majority were already in favour of legalisation, attitudes became slightly more favourable after the visit, and the perceived importance of the topic also increased—especially among regular users.

Preferences across different user groups (non-users, limited users, and regular users) were largely aligned: strong support for age restrictions, sales in pharmacies, and a ban on marketing and sales in clubs or bars. Smartshops were favoured more by regular users, while non-users remained more cautious. As the exit conversation study identified a strong preference among regular users for sales in a smartshop setting, the different research methods yield slightly different results. Notably, attitudes did not vary significantly by age or gender. The exhibition appeared to reinforce existing views and slightly shifted attitudes toward greater openness and perceived relevance of XTC regulation, particularly among those with prior experience.

OVERALL CONCLUSIONS

Acceptability in Dutch society

The overarching research question within the XTC-shop in Amsterdam was:

Under what conditions do visitors to the XTC shop in Amsterdam consider the regulated sale of XTC acceptable?

Based on the three studies it can be argued that the majority of visitors to the XTC-shop found the idea of regulated XTC sales acceptable within Dutch society, particularly when specific conditions and safeguards are in place. The immersive nature of the installation encouraged informed reflection and discussion, contributing to increased support for regulation, especially after participants considered concrete regulatory scenarios.

Key conditions for acceptable sales included:

- **Strict age verification and bans on sales under the influence**, reflecting a widespread concern for safety and responsible use.
- **Clear, accessible information at the point of sale**, especially about dosage, safe use, potential risks, and harm reduction strategies.
- **Preference for non-commercial, controlled environments**: Smartshops and pharmacies emerged as the most supported settings, though each had drawbacks. A **hybrid model** combining the safety and professionalism of pharmacies with the accessibility and familiarity of smartshops was the most widely accepted solution.
- **Strong opposition to commercialisation**: Visitors rejected advertising, XTC-themed products (e.g., candy or drinks), and sales in nightlife venues, indicating a desire to avoid glamourisation and peer-pressure-driven consumption.
- **Context sensitivity and cultural nuance**: Dutch visitors leaned toward more liberal, accessible models, while international visitors from more prohibitionist contexts supported stricter controls or explained that this initiative would be a scandal in their countries — highlighting the importance of cultural framing in public policy.

Motivations for supporting regulation included reducing criminal involvement in drug markets, protecting the environment, and ensuring safer use for consumers. Although pre-existing attitudes played a role, the installation itself positively influenced perceptions, particularly among regular users, by increasing both openness to regulation and the perceived relevance of the issue.

Fostering dialogue

The XTC-shop installation clearly sparked meaningful engagement across a broad spectrum of visitors, including both supporters and opponents of regulation. Even those initially skeptical found value in the experience, which suggests the project created space for conversation rather than confrontation. The fact that attitudes became more favourable and that support increased after visitors considered specific conditions shows that the shop encouraged thoughtful reflection rather than reactive opinions - a key ingredient for constructive dialogue.

By presenting concrete, diverse, and artistically designed future scenarios, the installation moved the conversation beyond abstract “yes or no” debates into a more nuanced exploration of how regulation could work. This approach allowed for a range of perspectives to be validated—different user groups, cultural backgrounds, and levels of experience were all taken into account. That helped bridge gaps between opposing views and shifted the focus from ideological stances to shared values like safety, control, and reducing harm.

The artistic framing of the installation played a crucial role in making a complex, often stigmatised topic more approachable. Instead of polarising rhetoric or policy jargon, visitors engaged with tangible possibilities in a creative, speculative setting. That likely lowered defensive reactions and opened people up to new ideas—exactly what we would envision in a depolarising initiative.

Awareness of a societal challenge

The third study, conducted by the University of Amsterdam, specifically showed that **participants left the installation with greater knowledge and a heightened sense of importance around the issue**. This is a strong indicator that awareness was not just raised in passing but made to feel personally and socially relevant - especially for regular users who might already be somewhat informed.

Rather than simplifying the issue into pro- or anti-regulation arguments, the XTC-shop guided visitors through the **complex trade-offs involved in MDMA regulation**—from criminality and environmental harm to health risks and cultural perceptions. This helped make visible the often hidden or misunderstood societal dimensions of the current unregulated MDMA market.

By immersing people in future sales scenarios through artistic design, the project transformed abstract societal challenges into **concrete, relatable choices**. Visitors weren't just learning about the issue - they were actively imagining themselves within possible futures, which is a powerful tool for awareness and empathy-building.

The inclusion of both Dutch residents and international tourists with varying levels of drug policy exposure helped broaden the reach of the message. The contrast in opinions between visitors from different cultural backgrounds made the **Dutch regulatory dilemma** more visible in an international context - framing it not just as a niche issue, but a global policy conversation with national stakes.

Ideas to advance drug policy reform

The majority of visitors supported some form of regulation, and this support grew stronger after engaging with the installation. This shows that when people are given a safe, creative space to explore alternatives, they can move past binary debates and genuinely consider what thoughtful, humane policy could look like.

There was no universal consensus on the ideal sales point. Instead:

- **Pharmacies** were seen as safe and informative—but too restrictive by more experienced users.
- **Smartshops** were more accessible and realistic—but raised concerns about commercialisation and lack of control.
- A **hybrid model** (combining safety, information, and accessibility) emerged as a strongly supported solution.

This suggests that future policy must be flexible and layered, adapting to different needs, levels of experience, and risk tolerance.

Visitors *strongly rejected* commercialised models involving:

- Branding or advertising
- XTC-infused novelty products
- Sales in party environments like clubs or festival

The takeaway: people are open to regulation **only if it clearly centers public health, harm reduction, and social responsibility** - not economic gain or lifestyle marketing.

When asked to consider real-world regulatory features (like age verification, sales limits, or bans on intoxicated purchasing), support for regulation jumped from 70% to 81%. This shows that:

- **The devil is in the details** - people want to see how regulation would actually work.
- Policies that are **transparent, conditional, and responsibly framed** can gain much broader public support.

This diversity of input into policy reform is valuable—it suggests that a **nuanced, inclusive policy design process is both possible and necessary**. Harvesting these contrasting views helps ensure policies won't alienate large segments of the population. For example, the exit conversation study concluded that:

- Dutch visitors tended to prefer lower-threshold access.
- International tourists, especially from countries with more repressive drug-policy, were more cautious.

- Regular users leaned toward accessibility; non-users leaned toward restrictions.

And the changing perspectives study showed an additional interesting insight that younger people favoured more conservative models of regulation.

Innovative education

Rather than passively presenting facts, the installation embedded XTC-related information into **immersive, hypothetical sales scenarios**. This meant that visitors encountered health, safety, and policy details **within a narrative framework**, which:

- Made the information feel relevant and applicable
- Encouraged deeper engagement and reflection
- Helped demystify XTC use without glamourising it

This kind of contextual learning is far more memorable and effective than static info panels or warnings.

Both experienced and inexperienced users found value in the information. For example:

- **Non-users** appreciated the pharmacy model for its clarity and safety
- **Regular users** engaged with the smartshop model and reflected on responsible use
- Across the board, there was strong support for **educational content at the point of sale**

This shows that the XTC-shop succeeded in **tailoring its messaging to a spectrum of visitor experiences**, which is a hallmark of good public health communication.

The third study specifically noted that visitors **gained knowledge and developed more favourable, nuanced attitudes** toward regulation and the topic of XTC in general. That change wouldn't have occurred without credible, engaging information delivery. It also highlights that **knowledge and attitude shifts can go hand-in-hand when people feel informed rather than judged**.

By combining design, interactivity, and speculative storytelling, the XTC-shop transformed a sensitive and complex topic into something tangible and approachable. This creative strategy:

- Made the subject less taboo
- Made visitors curious rather than defensive
- Encouraged questions and personal reflection

This is arguably **the innovation** needed in drug education today—something that breaks out of traditional “just say no” models and empowers informed decision-making.

Based on the Amsterdam edition of the XTC-shop we conclude that the exhibition succeeded not only in what it communicated about MDMA and its risks, but how it did so: with creativity, clarity, and respect for the audience's ability to think critically.

The impact of art

The XTC-shop demonstrated that an art installation can be a powerful instrument for broadening public perspectives and generating support around complex, often polarised issues like drug policy reform. By inviting visitors into a speculative, sensory-rich environment, the installation transformed abstract policy debates into lived, relatable experiences. This approach fostered curiosity, reflection, and empathy—encouraging people to move beyond binary opinions and engage with nuanced regulatory possibilities.

The combination of artistic design, credible information, and participatory storytelling not only increased awareness and knowledge, but also shifted attitudes and strengthened support for responsible, health-centered alternatives to prohibition. In doing so, the XTC-shop showed that art can act as a civic space—where imagination and policy thinking come together to unlock new pathways for social dialogue and change.



RECOMMENDATIONS

1. Deepen and expand the XTC-shop model — apply it to other substances

The XTC-shop proves that immersive, artistic installations can shift public perception, spark nuanced conversation, and inform policy thinking. It is recommended to build on this by creating a series of installations, each focused on a different substance with its own unique social, legal, and health complexities—such as:

- **Psilocybin or other psychedelics**, especially as medical and therapeutic uses gain traction
- **Cannabis**, but with a focus on post-legalisation challenges like commercialisation and equity
- **Cocaine**, addressing its environmental and geopolitical impacts alongside domestic consumption.

Each could use the same recipe: scenario-based design, participatory formats, and embedded education.

2. Expand drug policy reform research

The three studies offer unique insights that can feed further drug policy reform research. Some findings that deserve more attention:

- The **impact of nationality and culture** on perspectives towards drug policy reform and regulation
- The **differences between people with no or limited user experience and regular users of XTC** towards the various points of sale and sales conditions
- The **practical implications** of selling a psychoactive substance in a pharmacy, e.g. include the **views of pharmacists** in this discussion and see into the various details for **hybrid outlet models**

3. Translate the findings into policy-shaping formats

The existing research has real value for policy-makers - but it is recommended to package the conclusion and recommendations in formats they can use, such as:

- A policy brief summarizing public attitudes, preferred regulatory models, and design recommendations
- A toolkit for cities or governments exploring regulation pilots

- Exhibition-based stakeholder workshops, where public health officials, city planners, and even law enforcement in different countries can walk through the installation and discuss real-world applications

4. Create platforms for continued public dialogue

The XTC-shop opened up the conversation and it is recommended to give people a platform to continue it. Ideas:

- A **traveling version** of the installation (mini-format or VR) that can go to festivals, universities, or city halls
- An **online version** where people can explore scenarios and submit ideas
- A **public forum or assembly model** where citizens can co-create drug policy proposals informed by this research

5. Use this data and the ‘wisdom of the crowd’ to pilot real-world regulation models

The preferences and conditions identified through this research - such as hybrid sales models and the rejection of commercialisation - could feed directly into **small-scale regulation pilots**. In partnership with municipalities, this might help shape real policy experiments grounded in **what the public actually wants**.

This public experiment underscores **the capacity of the public to make complex policy decisions** and to weigh different stakes and risks against each other. This report thus makes a clear case for **bottom-up approaches towards drug policy reform** and for politicians and policy makers to make use of the ‘wisdom of the crowd’ to innovate policy.

6. Keep the art-science-social impact triangle alive

This project shows that artistic methods can bridge science and society. It is recommended to keep collaborating across disciplines:

- Partner with universities to design new studies using immersive formats
- Work with harm reduction orgs to co-create new public education tools
- Collaborate with artists and designers to reimagine drug education - beyond fear-based campaigns

7. Apply the XTC-shop concept to other, complex societal dilemmas

The XTC-shop can be seen as a **proof-of-concept** that artistic installations can shift narratives, inform public thinking, and contribute to real policy conversations. The potential here isn’t just about drugs; it’s about using art to explore any complex societal issue where public imagination and policy stagnation are at odds.

METHODOLOGICAL LIMITATIONS

The research design within the XTC-shop is an 'experiential' pilot study that combines science, art and education. The design of the XTC-shop led to several limitations of the research, which are mentioned in this section. This research should, therefore, not be seen as a purely academic exercise but rather as exploratory research and experiment.

Respondent/selection bias

The XTC-shop was hosted by an exposition space at the Westergas in Amsterdam: an area with musea, bars and spaces that host nightlife/parties. During the first opening week, Amsterdam Dance Event took place in Amsterdam and the Westergas-area hosted several parties during that week. Other activities - generally geared towards a young crowd - also took place over the course of the opening weeks. Westergas attracts a relatively young audience and this demographic was reflected in the XTC-shop visitors.

The playful design of the XTC-shop further strengthened the appeal for young, predominantly progressive people. Some visitors who walked into the shop thought they could buy actual XTC at the location or they were seeking out information about XTC. Lastly, Poppi's on- and offline marketing campaign contributed to an over-representation of people with lived experience with XTC use and/or with a particular interest in the topic.

Taking the tour together: answers based on discussion and consensus

Similar to our experience in Utrecht in 2022, around 80-90% of the XTC-shop visitors visited the shop in pairs or small groups. Both surveys were often filled in by one person, on behalf of their company. Answers were the results of sometimes lively discussions and dialogue between the pairs/small groups.

Changes to the survey halfway

The XTC-shop staff received persistent feedback from visitors that they felt limited when filling in the survey as they often wanted to click 'multiple answers'. This led us to change this option for four questions in the survey halfway through the experience.

Competing studies

The three studies were found to compete with each other on multiple occasions. When visitors engaged in the more elaborate exit survey they often did not fill in the survey on the digital screen. And the same happened when people were encouraged to take the pre- and post test that was part of the UvA study. In hindsight, the studies have been competing with each other in some ways. This was a matter of wanting to maximise the experience too much.

On the other hand: there is hardly any overlap between the respondents that took part in the three separate questionnaires as hardly anyone partook in more than one of the studies.

Balance between experience/art, education and science

In the Amsterdam edition of the XTC-shop we focused on finding the right balance between 1) offering an immersive experience, 2) providing people with information and education and 3) operationalising the XTC-shop as a live research location. Overall, we feel that the balance between these three components improved compared to the Utrecht edition, with a slightly bigger focus on the experience and education. There were moments when the research teams were present that the balance tilted slightly towards our academic goals. And at other occasions, the addition of staff that engaged in live role play may have also influenced the research potential on location.

The set up of the XTC-shop as a public experiment has definite limitations. At the same time, the uniqueness of XTC-shop overrules these limitations. Still, the results from the three studies should always be placed in the context of a live location with many unexpected interruptions and interactions.



