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Y al final de nuestra declaración queremos decir que debemos recordar que no estamos solos en el mundo. Nuestra diversidad étnica y cultural es nuestro honor y, si me lo permite, nuestro tesoro. Sabemos que en la UE hay la tendencia de la influencia mayor de las ideas de extrema derecha. Por eso todo lo que estamos diciendo tiene muchísima actualidad. Y se necesitan más que nunca las investigaciones en esta esfera.

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# MANUFACTURE OF PERFUMES

## Introduction

Since the beginning of recorded history, humans have attempted to mask or enhance their own odor by using perfume, which emulates nature's pleasant smells. Many natural and man-made materials have been used to make perfume to apply to the skin and clothing, to put in cleaners and cosmetics, or to scent the air. Because of differences in body chemistry, temperature, and body odors, no perfume will smell exactly the same on any two people [1].

Perfume comes from the Latin "per" meaning "through" and "fumum," or "smoke." Many ancient perfumes were made by extracting natural oils from plants through pressing and steaming. The oil was then burned to scent the air. Today, most perfume is used to scent bar soaps. Some products are even perfumed with industrial odorants to mask unpleasant smells or to appear "unscented."

## **Raw materials**

Natural ingredients flowers, grasses, spices, fruit, wood, roots, resins, balsams, leaves, gums, and animal secretionsas well as resources like alcohol, petrochemicals, coal, and coal tars are used in the manufacture of perfumes. Some plants, such as lily of the valley, do not produce oils naturally. In fact, only about 2,000 of the 250,000 known flowering plant species contain these essential oils. Therefore, synthetic chemicals must be used to re-create the smells of non-oily substances. Synthetics also create original scents not found in nature [2].

Some perfume ingredients are animal products. For example, castor comes from beavers, musk from male deer, and ambergris from the sperm whale. Animal substances are often used as fixatives that enable perfume to evaporate slowly and emit odors longer. Other fixatives include coal tar, mosses, resins, or synthetic chemicals. Alcohol and sometimes water are used to dilute ingredients in perfumes. It is the ratio of alcohol to scent that determines whether the perfume is "eau de toilette" (toilet water) or cologne.

### Collection

Before the manufacturing process begins, the initial ingredients must be brought to the manufacturing center. Plant substances are harvested from around the world, often hand-picked for their fragrance. Animal products are obtained by extracting the fatty substances directly from the animal. Aromatic chemicals used in synthetic perfumes are created in the laboratory by perfume chemists.

### Extraction

Oils are extracted from plant substances by several methods: steam distillation, solvent extraction and expression.

In steam distillation, steam is passed through plant material held in a still, whereby the essential oil turns to gas. This gas is then passed through tubes, cooled, and liquified. Oils can also be extracted by boiling plant substances like flower petals in water instead of steaming them [4].

Under solvent extraction, flowers are put into large rotating tanks or drums and <u>benzene</u> or a petroleum ether is poured over the flowers, extracting the essential oils. The flower parts dissolve in the solvents and leave a waxy material that contains the oil, which is then placed in ethyl alcohol. The oil dissolves in the alcohol and rises. Heat is used to evaporate the alcohol, which once fully burned off, leaves a higher concentration of the perfume oil on the bottom.

Expression is the oldest and least complex method of extraction. By this process, now used in obtaining citrus oils from the rind, the fruit or plant is manually or mechanically pressed until all the oil is squeezed out.

## Blending

Once the perfume oils are collected, they are ready to be blended together according to a formula determined by a master in the field, known as a "nose." It may take as many as 800 different ingredients and several years to develop the special formula for a scent.

After the scent has been created, it is mixed with alcohol. The amount of alcohol in a scent can vary greatly. Most full perfumes are made of about 10-20% perfume oils dissolved in alcohol and a trace of water [3]. Colognes contain approximately 3-5% oil diluted in 80-90% alcohol, with water making up about 10%. Toilet water has the least amount 2% oil in 60-80% alcohol and 20% water.

### Aging

Fine perfume is often aged for several months or even years after it is blended. Following this, a "nose" will once again test the perfume to ensure that the correct scent has been achieved.

### **Quality control**

Because perfumes depend heavily on harvests of plant substances, perfumery can often turn risky. Thousands of flowers are needed to obtain just one pound of essential oils, and if the season's crop is destroyed by disease or adverse weather, perfumeries could be in jeopardy. In addition, consistency is hard to maintain in natural oils. The same species of plant raised in several different areas with slightly different growing conditions may not yield oils with exactly the same scent.

Perfumes today are being made and used more various than in previous centuries. Perfumes are being manufactured more and more frequently with synthetic chemicals rather than natural oils. Less concentrated forms of perfume are also becoming increasingly popular. Combined, these factors decrease the cost of the scents, encouraging more widespread and frequent, often daily, use.

Using perfume to heal, make people feel good, and improve relationships between the sexes are the new frontiers being explored by the industry. The sense of smell is considered a right brain activity, which rules emotions, memory, and creativity [5]. Aromatherapy smelling oils and fragrances to cure physical and emotional problems is being revived to help balance hormonal and body energy. The theory behind aromatherapy states that using essential oils helps bolster the immune system when inhaled or applied topically. Smelling sweet smells also affects one's mood and can be used as a form of psychotherapy.

Like aromatherapy, more research is being conducted to synthesize human perfume that is, the body scents we produce to attract or repel other humans. Humans, like other mammals, release pheromones to attract the opposite sex [1]. New perfumes are being created to duplicate the effect of pheromones and stimulate sexual arousal receptors in the brain. Perfumes Секция принттехнологий и медиакоммуникаций

help people not only to mask "bad" smells, they could improve their physical and emotional well-being.

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### **SMART SUSTAINABLE CITIES**

As for definition a smart city is an innovative city that uses information and communication technologies and other means to improve quality of life. In other words, the smartest cities are those that use all their resources to improve the quality of life of the population.

As to Swedish IT-company EasyPark's research, this is 3 top smartest cities: Copenhagen, Singapore, Stockholm.

According to the EasyPark rating, the capital of Denmark is named the smartest city on the planet. Copenhagen is actively developing in the field of IT-technology, ecology, medicine, economics, business, transport infrastructure. Not long ago, the mayor of the city officially announced the launch of the City Data Exchange - an online platform with public and private information open to residents.One of the pluses is that in 2017, the Government of Copenhagen approved a project to equip bicycles with special counters, signaling the level of pollution and traffic jams.

The state of Southeast Asia received ten out of ten points for an effective system of public transport and social activity of citizens. The market economy of Singapore is high, while tax rates, on the contrary, are low, which makes the city ideal for attracting investors.

Stockholm takes the 3d place. The main city of Sweden has earned the highest possible score for online access to innovative technologies.