

September 2022

PCC

CHEM NEWS

Newsletter of the PCC Rokita Capital Group and affiliated companies

The Product Portal
*one of the best websites
on Google.*

#Weretraining
*- you too can choose
personal development!*



PCC CHEM NEWS
Editorial Team
contact details

Editor:
Maciej Trubisz
tel. 71 794 2448, e-mail: biuletyn@pcc.eu
ul. Sienkiewicza 4, 56-120 Brzeg Dolny

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Table of Contents/September 2022



From life of companies

- 4 Multimedia Library on the PCC Group's Product Portal.
- 5 The Product Portal one of the best websites on Google.
- 6 How do we designate our products? A new multimedia tool on the PCC Group Product Portal.

Personal Matters

- 8 #Weretraining – you too can choose personal development!

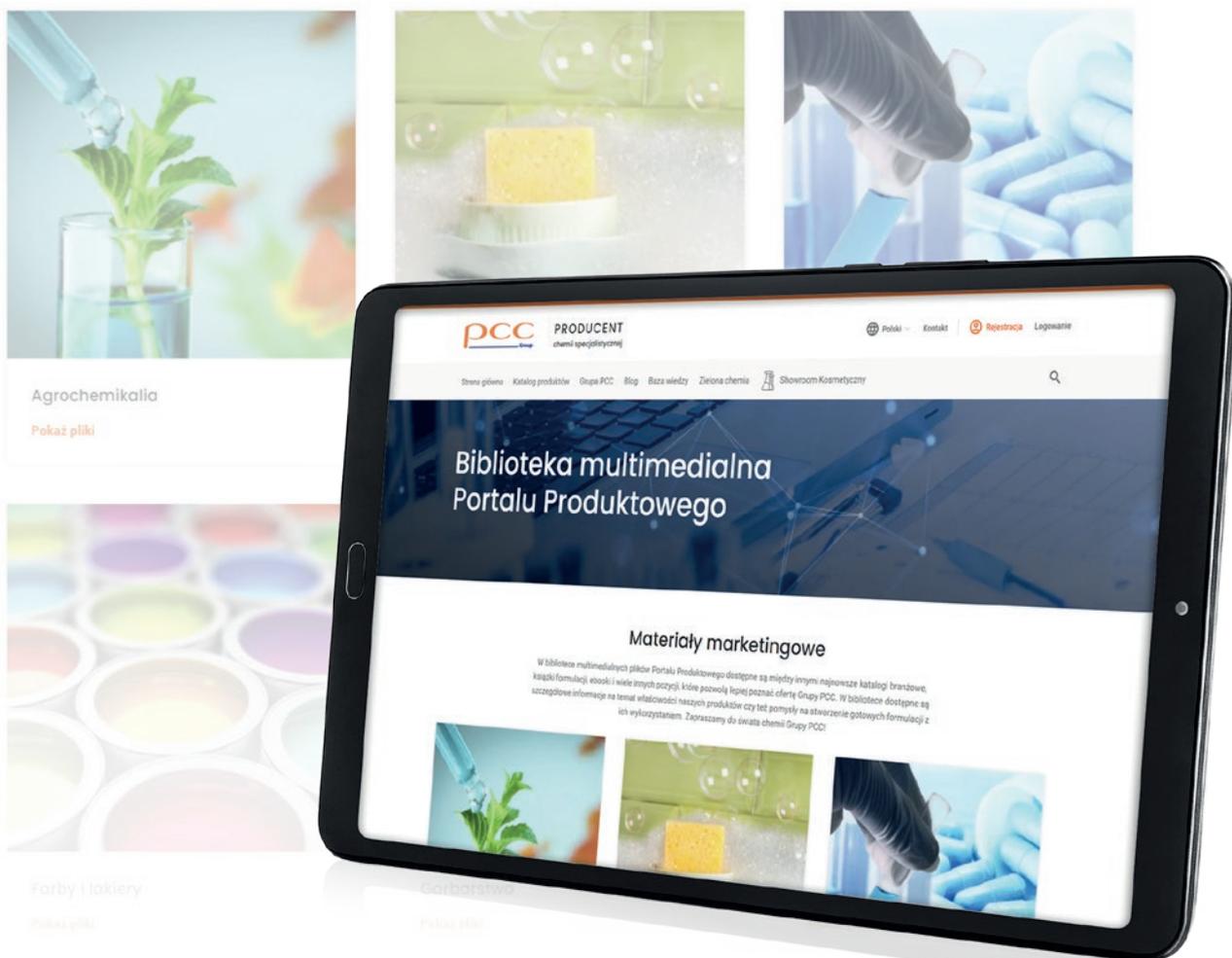
For curious ones

- 10 GMO raw materials and their use in the cosmetics industry.

After work

- 16 Norwegian transformation into electromobility
- 22 Anything that is "halal" is not "haram".
- 28 Why is autumn the most beautiful season in the mountains?
- 31 Catania Restituta.





Multimedia Library

on the PCC Group's Product Portal

We are pleased to announce that the PCC Group's Product Portal has been enriched with a "Multimedia Library," where various marketing publications of our companies can be found.

<https://www.products.pcc.eu/en/multimedia-library/>

The library is available in the "Knowledge base" tab accessed from the main menu. Once in the tab, find an orange button on the main banner, which will take you directly to our Multimedia Library. At present, our resources include catalogues and product brochures. Over time, also videos, presentations, links to industry showrooms and other multimedia are planned to be added.

If you happen to have any cool ideas for the development of our Multimedia Library and would like to be part of its advancement, please contact us! All ideas are welcome, and we'll be happy to involve the authors in the development!

Looking forward to working with you!

Marketing Department
PCC Group



September 2022

From life of companies

The Product Portal

one of the best websites on Google

Today, the PCC Group Product Portal is one of the best search engines for chemical products in the world wide web.

Our website can already boast visibility at the level of 71,100 keywords in the TOP 10 Google search results. What's more, our statistics are improving practically month by month, and a year-to-year data comparison shows an over 300% increase in online visibility.

Our website gets a lot of traffic from international searches and is well-developed topically, which has an impact on the so-called high "topical authority," i.e. the quality and standard of information provided to users of a given website.

In May this year, the Product Portal was awarded by Google for excellent results in terms of internet traffic. This means that within a period of 28 days, users visited our site as many as 250,000 times. Consequently, it has been recognised as one of the best sources of information in the Google search engine.

Outstanding results confirmed by Google analyses place the Product Portal of the PCC Group in the forefront of global competitors in the chemical industry.

This information has been confirmed by a recent, independent external audit conducted by one of the best and most recognised SEO experts in the online marketing industry.

The competition analysis carried out by an independent auditor shows that our domain still has a lot of potential to strengthen its very strong position in the field of global net visibility relative to the most important competitors operating in the chemical industry.

In the case of the Polish market, the greatest advantage of the Product Portal lies in a very strong brand with a huge number of related questions in the area of chemicals. This makes the Portal the most popular domain in this industry also on the Polish market.

If you'd like to build the potential of the Product Portal together with us and join the creators of its development, contact us and share your notes and ideas.

products@pcc.eu

You're welcome to join us!

Marketing Department
and PCC IT team



How do we designate our products?

A new multimedia tool on the PCC Group Product Portal

The PCC Group Product Portal already has almost 1,300 active product cards. All our products have not only individual descriptions, but also graphic designations of features, options and environmental aspects. Also, there are pictograms referring to green technologies, health, cultures and people's lifestyles.

Zdrowie, kultura i styl życia

Przebadany dermatologicznie



Przebadany dermatologicznie



Nie zawiera nanomateriałów



Atest PZH (Świadectwo Jakości Zdrowotnej PZH)



Produkt biodegradowalny



Preparat biobójczy i wirusobójczy



Kosher Pareve

Przebadany dermatologicznie

W ofercie Grupy PCC występuje szereg gotowych produktów które są bezpośrednio stosowane przez naszych konsumentów. Ich zdrowie jest dla nas priorytetem, dlatego też nasze produkty poddawane są badaniom dermatologicznym by zapewnić możliwość bezpiecznego użytkowania. Wyroby oznaczone znakiem „Przebadane dermatologicznie” zostały sprawdzone pod kątem braku właściwości uczulających oraz drażniących. Stosowanie danych produktów zgodnie z zaleceniami zapewnia bezinwazyjne i bezpieczne użytkowanie.

Nasze produkty

Zobacz produkty przebadane dermatologicznie

ROKO® PROFESSIONAL DUO ACTIVE Mydło w płynie o właściwościach antybakteryjnych

Produkt gotowy

ROKO® PROFESSIONAL DUO ACTIVE Mydło w płynie o właściwościach antybakteryjnych to higieniczne mydło w...



CAMOLIN® Nawilżający żel pod prysznic o zapachu mirabelki 265ml

Produkt gotowy

CAMOLIN® NAWILŻAJĄCY żel pod prysznic o zapachu świeżej, dojrzałej śliwki mirabelki to wysokiej jakości...



CAMOLIN® Odżywcze mydło w płynie o zapachu kwiatu lipy 300ml

Produkt gotowy

CAMOLIN® ODŻYWCZE mydło w płynie o zapachu kwiatu lipy to wysokiej jakości, w pełni wegański kosmetyk...



CAMOLIN® Odżywczy żel pod prysznic o zapachu kwiatu lipy 265ml

Produkt gotowy

CAMOLIN® ODŻYWCZY żel pod prysznic o zapachu świeżych kwiatów lipy to wysokiej jakości, w pełni wegański...



Zobacz produkty

The search engine now offers also the possibility to sort the products of the PCC Group companies by all these designations. All you need to do is enter the "Knowledge Base" tab in the main menu and select "Graphic designations for PCC Group products".

On the Portal's new website that classifies products according to pictograms, you will find three main categories:

1. **Products' features and functions,**
2. **Environmental aspects and green technologies,**
3. **Health, culture and lifestyle.**

By selecting one of the symbols in a given category, you can filter all the products marked with this pictogram as well as read its description.

The Product Portal's new tool is easy and intuitive to use. Like other online tools offered to users, it is practical and helpful in searching by various, even the most non-standard features, functions and properties of raw materials and chemical products from the offer of the PCC Group companies.

Marketing Department
PCC Group

Go to classification of PCC Group's product designations:

<https://www.products.pcc.eu/en/classifications/>





#Weretraining

*- you too can choose
personal development!*

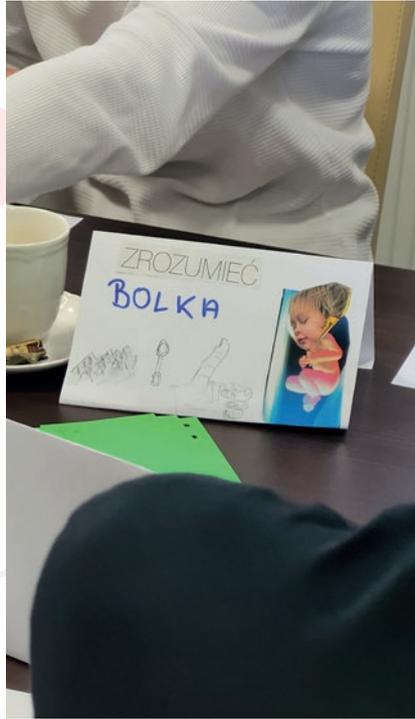
What is communication? Besides words, are there any other aspects that support the communication process? How to speak to be heard, and how to listen to understand your interlocutor well? We searched for information on these and other questions during a workshop conducted by Karolina and Iza from the HR department among this year's interns!

And all this is part of introducing our interns to working in the PCC Group. Training is an important part in our development policy. We offer both internal and external training. Our employees take part in industry conferences, obtain qualifications and improve their soft skills. All this through training, but also through undergraduate, engineering, graduate and postgraduate studies. They are co-financed by the Employer, and every

year more and more employees make use of the opportunities offered by our Group!

The entire offer related to employee development is available on the PCC Employee portal as well as directly in the HR department.

Karolina Ławecka
HR Specialist
PCC Group





GMO raw materials

and their use in the cosmetics industry

Genetic engineering is one of the biological sciences dealing with, inter alia, the processes of targeted gene exchange between organisms, using biotechnological methods.

It is a relatively new field that raises a lot of controversy in the context of safety for the environment as well as human health and life. Public support for genome-modified organisms is low, although there has been a trend growing towards GMO acceptance in some industries. This mainly applies to sectors working to improve human health and life.

The first organisms modified thanks to genetic engineering came into being in the 1970s. It was a breakthrough that initiated the use of GMOs in agriculture, cosmetics, food, pharmacology and medicine.

The main purpose behind introducing genetically modified organisms into mass production was to, above all, in-

crease the profitability of agricultural production in the area of pesticide-free crops. The benefits of GM crops are being strongly questioned, however, in light of theories on their harmfulness to ecosystems and human health.

The topic of GMO has become so controversial because genetically modified plants and their products are found not only in food. GMO-based raw materials are often used in the mass production of cosmetics.



What actually is GMO?

GMOs are genetically modified organisms whose genomes have been artificially modified by genetic engineering methods to obtain new physiological characteristics or to change the existing ones.

Despite popular belief, genetic modification is not actually that outlandish a phenomenon. Is all genetic manipulation bad in principle? Are genetic changes completely against nature?

Opinions of staunch opponents of genetic modification largely contradict the available scientific evidence. Nature itself spontaneously modifies the DNA of organisms under the influence of various stimuli and changes in the environment, thus adapting living organisms to changing conditions.

The most basic modifications include, for example, selection of strains and multiplication of those with the highest nutritional potential. Other examples of genetic modification are crossing and the creation of so-called polyploids, i.e. plant organisms with a multiplied amount of genetic material. It is through these kinds of manipulation that we have ripe ears of cereals, juicy and sweet watermelons or bananas with a creamy texture.

It can be said with certainty that the above modifications had a positive outcome. Serious controversy arises, however, when we are dealing with GMOs in the literal sense of the word, where there is actual manipulation within the cell's genome.

In this case, the interference on the part of genetic engineering specialists as well as specialised laboratories with appropriate equipment are required.

So what is genetic modification? Simply put, it consists in removing a specific fragment of the DNA chain from an organism, or introducing a specific fragment of the DNA chain from a cell of one organism into the genetic material of the cell of another organism.





Which cosmetic raw materials may contain GMOs?

There is a very wide range of ingredients and additives on the market that are used in the production of cosmetics. They are mainly substances of plant origin.

As you know, industrial plant production means large-area crops, where great emphasis is placed on efficiency and productivity per hectare. Therefore, agricultural plants are often subject to various genetic modifications leading to an increase in the yield and quality of the crop.

The most popular genetically modified plants used in the production of cosmetic raw materials and additives include:

- maize (oil, starch),
- wheat (starch),
- cotton (seed oil),
- apples (organic acids, proteol APL),
- sugar cane (sugars, squalane),
- rape (oil),
- flax (flax oil),

- soya beans (oil and wax, phytoestrogens),
- alfalfa (extracts),
- cloves (essential oil),
- eucalyptus (essential oil),
- rose (essential oil),
- melon (extracts),
- papaya (extracts, enzymes),
- plum (extracts),
- poplar (extracts),
- rice (oil, starch),
- sugar cane (sugars, squalane),
- tobacco (extracts).

A noteworthy example of a cosmetic raw material that can be obtained from GMOs is lauric acid, which is a saturated fatty acid. Due to its excellent wetting properties, this raw material is often used as a component of personal care products (bath liquids and soaps, shampoos) and white care cosmetics, such as moisturising creams or lotions. The compound is obtained from coconuts and rapeseed.

The cosmetics industry's enormous demand for lauric acid was one of the reasons why rapeseed was genetically modified. It was done in order to increase

the lauric acid content in the plant. Of course, this has led to price reduction and an increase in its availability, however, most of this raw material is now GM.

Other popular cosmetic ingredients produced on the basis of GMOs are, for example, maize starch, xanthan gum, glycerine, vegetable proteins, and even vitamins C and E.

When buying cosmetics, GMO opponents should be aware that products containing the above-mentioned substances may be made of genetically modified plants.

How to avoid GMO-based cosmetics?

The best choice in this case are organic cosmetics based on natural ingredients. These types of products should contain at least 95% of ingredients of natural origin. Additionally, the label should contain a GMO FREE designation.

Labelling cosmetic products as GMO-free is not legally regulated. Some manufacturers use the GMO FREE designation as a marketing measure aimed at persuading customers to buy their product.

GMO-free cosmetics usually have one of the following certificates: ECOCERT, EkoZnak, NaTrue, EcoControl or EcoGarantie.

What are the pros of GMOs?

It is clear that genetic engineering is an inexhaustible source of possibilities, limited solely by the imagination of geneticists and biotechnological development. Compared to their unmodified counterparts, modified organisms (depending on the type of genetic modification) have many positive features, such as:

- much higher protein and fat content (higher energy value);
- the ability to produce vitamins and other valuable ingredients that are not produced by unmodified organisms or are produced in very small amounts (e.g. vitamin A fortified rice);
- much higher crop efficiency and higher crop yields per hectare;
- the possibility of limiting crop acreage (a higher yield per hectare means a lower demand for agricultural land. This reduces deforestation and adaptation of wild areas for agricultural crops);
- high resistance to pesticides used in plant cultivation to control weeds, pests and pathogenic fungi;

- the ability to independently produce pest-repelling compounds/substances. This means using less pesticides (insecticides) to protect the plant;
- higher resistance to unfavourable weather conditions and poor soil quality;
- longer crop warehousing and storage period;
- the possibility of producing vaccines and medicinal drugs (cheaper substitutes);
- early detection of plant and animal diseases (DNA testing);
- biofuel production,
- reducing the problem of hunger around the world.



What side effects can the use of GMOs have?

What are the cons of GMOs? Opinions and arguments differ greatly. The most popular ones are:

- being harmful to human health and life (allergies, digestive system diseases, immunity disorders, cancer, infertility);
- uncontrolled release of genetically modified organisms into the environment;
- uncontrolled migration of GMO genes to other organisms within the same or another species (adjacent crops);
- increased resistance of weeds and pests to pesticides (the need to use increasingly stronger plant protection products);
- negative impact on fauna (birds, insects, amphibians, marine animals, soil organisms);
- limiting biodiversity in nature;
- monopolisation of the seed market,
- being harmful to plant pollinating insects.

GMO supporters stick to the position that there is no evidence that GMOs are harmful to the human body, while animal studies are not reliable enough.

Opponents put forward the exact same argument against GMOs. In their opinion, there is no hard, scientific evidence that would deny the harmfulness of genetically modified organisms to the environment and human life, while there are many premises that definitely confirm their negative impact.

Moreover, GMO opponents draw attention to the very intense political lobbying on the part of global producers of genetically modified crops seeds. Concerns' goal is to monopolise world markets, and thus increase profits from the sale of GMO seeds.

Harmfulness of GMOs in cosmetics and raw materials for their production

As we already know, the harmfulness of GMOs has still not been scientifically confirmed to be resulting from gene mutations as not even altered plant DNA affects human DNA. The fact is, however, that too big doses of herbicides as well as insecticides produced by GMOs showing allergenic effects can be harmful.

In practice, all raw materials and additives included in cosmetics must be ap-

proved for production on the basis of restrictive tests confirming their safety for human health and life.

Producers of cosmetics and cosmetic raw materials are required to meet strict requirements set out in standards and legal regulations. Violating them results in high financial penalties. Thus, the decision to use GMO FREE or GMO INSIDE products depends solely on the personal preferences of consumers.



GMO FREE

For curious ones



GMO FREE products in the PCC Group's offer

The PCC Group's product range includes a number of GMO FREE cosmetic raw materials. The company supplies substances and additives for the production of cosmetics to customers from all over the world. Their requirements often concern, among other things, the content of GMO-free chemical compounds.

For those of the PCC Group's production companies that make cosmetic raw materials and additives, it is necessary to design and introduce new products with the environment and safety for human health and life in mind.

Producers operating within the Group

constantly improve the existing formulas, introduce new products, use sustainable raw materials and implement environmentally friendly technologies.

Every product placed on the market has individual technical documentation and is subject to the applicable research and industry tests. In addition, cosmetic raw materials from the surfactants group are produced in the EFICI GMP-certified facilities (Good Manufacturing Practices in accordance with the guidelines of the European Federation for Cosmetic Ingredients).

Beata Gruś
Marketing Department
PCC Group

The absence of harmful effects of substances produced on the basis of GMOs contained in cosmetics and food is confirmed by: WHO (the World Health Organisation), AMA (American Medical Association), PAN (Polish Academy of Sciences), EFSA (European Food Safety Authority), Pontifical Academy of Sciences, Chinese Academy of Sciences, French Academy of Sciences, International Council of Science and dozens of other state and international scientific associations.

Norwegian transformation

into electromobility

Norway, Oslo, 16th July 2022, Saturday, Gardermoen airport. As at any other airport, you pass through long corridors and a million gates to finally find your way to the arrivals hall. When the temperature in other European capitals exceeds 30 or even 40 degrees, it's 22 in Oslo. But no worries – in three days it will turn out that even in the harsh climate of faraway Scandinavia the thermometer pointer sometimes reaches 29 in July. Oslo – the capital of 5.4 million people is VERY tranquil. In Paris, Warsaw, Berlin, Barcelona, you will not get to enjoy such silence. The gentle hum of passing cars, and all this due to the revolution that took place here in the form of implementing electric vehicles. This gives food for thought, especially in view of the new PCC SE project, where the main focus is the development of silicon-based anode materials for automotive battery applications. Norway is an example of a country where the vision of the future is becoming the present. Get ready, this article will show you Norway from a slightly different perspective...

How did it all start?

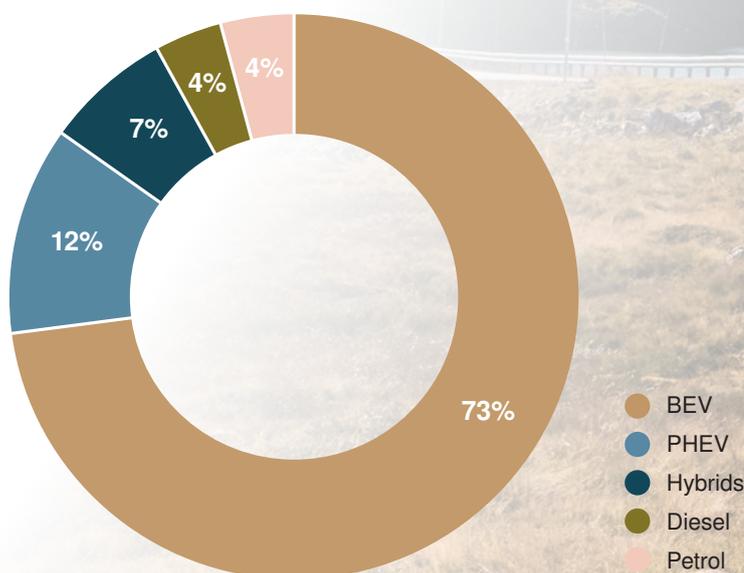
In the early 1990s, Norwegian politicians adopted the most progressive electric vehicle policy in the world, introducing lucrative incentives to buy electric vehicles – long before a mass market in the field emerged. Constant support, consistency in action, new measures and regulations have all placed Norway far ahead of other European countries.

The history of electric vehicles in Norway is considered one of the world's greatest climate successes. This would not be possible if it weren't for the consumers who accepted the transition to electricity and the purchase of emission-free vehicles.

With the full-scale electric revolution in Norway, traditional combustion engine vehicles are gradually being replaced by electric ones. In fact, very few diesel cars have been sold in Oslo in 2022 (only one in February). The sale of internal combustion cars is an almost extinct market for the automotive industry. And indeed, when driving along a Norwegian motorway, you see such cars as Nissan Leaf, Tesla, Audi e-Tron, HYUNDAI IONIQ5, VW ID.4, Skoda Enyaq passing you by... Beautiful cars of the future, shining bright with good technological thought.

New car registrations in Norway (May 2022)

(Source: DNV)



Electric car sales statistics in Norway:

Top of the month:

Volkswagen ID.4

with: 51 cars

Top of the quarter:

Skoda Enyaq

with: 734 cars

Top of the year:

Tesla Model Y

with: 6252 cars

Top of all time:

Nissan Leaf

with: 74 247 cars

Registered cars in total: 559 137

Import: 491 138



Strong arguments

What convinced Norwegians to accept such a policy and this, after all, new, 'expensive' and not fully proven technology? It's not just about patriotism and love for nature (although they do put a lot of emphasis on these).

The answer's below:

- exemption from tax on the purchase/import of electric vehicles (1990-),
- 25% VAT exemption on purchase (2001-),
- no annual road tax (1996-2021); reduced tax from 2021; full tax from 2022,
- no tolls on toll roads (1997-2017),
- no ferry fares (2009-2017),
- max 50% of the total amount of ferry fares for electric vehicles (2018-),
- max 50% of the total amount on toll roads (2018-),
- free city parking (1999-2017),
- access to bus lanes (2005-); new regulations allow local authorities to restrict this access to electric vehicles carrying one or more passengers only (2016-),
- company car tax reduced by 50% (2000-2018); company car tax reduction lowered to 40% (2018-) and then 20% in 2022,
- exemption from 25% VAT on leasing (2015-),
- the Norwegian parliament has adopted a national target for all new cars sold by 2025 to be emission-free (electric or hydrogen) (2017),
- the "Charging Law" has been established for people living in residential buildings (2017-),
- public procurement: starting from 2022, cars must be ZEV; from 2025 the same will apply to city buses,
- additionally, the infrastructure of charging stations has been very widely expanded – and not only of home ones, but also those for quick charging on the road. In a way, they can afford this thanks to the number of people in Norway: 5.4 million (density: 14 people/km²), whereas e.g. Germany: 83 million (density: 232 people/km²), the Netherlands: 17.5 million (density: 515 people/km²).



The earlier statement on 'expensive' technology is not entirely true here from the perspective of the common Norwegian, or rather the 'green' eco-Norwegian. Interestingly, in the long run, it may even be profitable. Take, for example, this hypothetical situation: you buy either a standard petrol Volkswagen Golf or an e-golf. The base price for an imported e-golf is higher – 33,037 euros, diesel golf – 22,046 euros. After adding all possible taxes (CO2, NOx, 25% VAT, etc.), the electric option wins with 33,286 euros, beating its brother by around 800 euros at the start.

What about public transport? Well, those who'd like to poke a hole here will be disappointed. On Norway's southwest coast, more than a third of the total car fleet is currently emission-free. This has dramatically reduced pollution in cities, providing long-term health benefits not only to residents but also to wildlife. Reducing emissions from air transport is also a high priority in Vestland. The district is currently cooperat-



ing with the Norwegian Widerøe airline and the Norwegian Aviation Authority AVINOR on, for example, implementing zero emission flights in the region by 2030 – a breakthrough in regional travel.

We're also witnessing nearly half of all local and regional ferries become electric battery-powered, which allows thousands of people, cars and goods to be transported with zero emissions.



The spectacular Norwegian fjords are home to many animal species. We're talking here about a very unstable, fragile ecosystem that is very vulnerable to pollution and climate change. It will now be better protected through technology, business, and policies aimed at carbon-free shipping.

And one more thing on the topic of buses... An example – take a look at the automated electric Karsan Autonomous e-ATAK bus, developed jointly by Karsan and ADASTEC. With a capacity of 52 passengers, it is the first large electric bus to run autonomously as regular public transport in Stavanger via Kolumbus and Vy.

Karsan Autonomous e-ATAK, EV-converted by BMW and made AI-autonomous by ADASTEC, observes the situation around it using advanced sensors, such as LIDAR (Light Detection and Ranging – a method of measuring distance by illuminating a target with laser light and measuring reflection using a sensor), high-resolution cameras, advanced radars and thermal imaging cameras to detect other road users and infrastructure. It has a maximum speed of 50 km/h in normal weather, and it can run in rainy/foggy conditions, during the day and at night. It performs all the activities of a bus driver without a driver (!), such as approaching stops on

the route, managing the boarding and disembarking processes, Karsan Autonomous e-ATAK can easily deal with traffic light intersections, roundabouts, as well as passenger stations with normal road infrastructure around them, without any assistance.

Fine, but...

Sounds great, but after further reflection you might say: electricity must cost them a fortune! Electricity prices are staggering all over Europe. Expensive gas, expensive coal, oil prices are going up... But Norwegians have thought it all out very well. Their secret is hydropower from 1,500 power plants across the country. Many of them are so-called run-of-the-river power plants that do not require dams. Hydropower supplies 96 percent of all electricity in Norway. With 98% of electricity produced from renewable sources, Norway ranks ninth in the world. What's interesting and worth noting is that in terms of the amount actually produced, Norway produces more electricity than all eight countries ranking above them combined! Norway has also applied a strategy to increase offshore wind capacity to 30 GW by 2040.

Starting from the beginning of 2020, the use of fossil fuels for heating has been banned all throughout Norway. Norway exports energy and is becoming one of

the largest exporters in Europe. The same goes for oil and gas, which – in the current geopolitical situation – puts both Norway and us in a very good position.

Sounds convincing, right?

Oslo's (un)known face

Walking along the small streets in the centre of Oslo, it won't be just the latest models of electric cars from famous brands that will catch your eye. You will also get to see some that are rarely talked about by even the biggest automotive connoisseurs. At Karl Johans gate 33 you'll find a real speedster: the Chinese Nio EP9!

Nio EP9 – the fastest electric car in the world. It has four electric motors generating 1,340 HP, each of which has an individual gearbox, and they have a total power of 1 MW. It goes from zero to hundred in 2.7 seconds. The vehicle's range is approximately 420 km, and it takes approximately 45 minutes to recharge the 635 kg lithium-ion batteries. Such specifications always please automotive experts, and my eyes open up wide whenever I see the aesthetics of its workmanship. The manufacturer has also given the option of replacing a battery, so adapting the car for driving a bit



further off can take much shorter. NIO offers a subscription to so-called "Battery as a Service" option (BaaS), which allows the customer to have two free battery changes a month. In practice, in Norway, NIO currently offers ES8 SUVs, which successfully arrived there from Shanghai in July 2021. NIO EP9, on the other hand, is permanently on display in the NIO house at Karl Johans gate 33, attracting tourists from all over the world.

Eco-summary

Summing up our trip around Oslo, I must admit that it is an interesting lesson for all of us. New trends and technologies that we still perceive as visions of distant future, that may not come to us in a few dozen years, are at our fingertips, just around the corner. This proves that everything is possible, but it requires effort and years of determination in reaching the goal.

Aleksandra Schejn

New Technologies Specialist
PCC Rokita

Krzysztof Gibas

New Technologies Specialist
PCC Rokita

References:

<https://www.innovationnewsnetwork.com/exploring-electric-vehicle-revolution-norway/21807/>
<https://elbilstatistikk.no/>
<https://www.innovationnewsnetwork.com/exploring-electric-vehicle-revolution-norway/21807/>
<https://evs35oslo.org/2022/06/08/meet-and-try-the-first-large-battery-electric-bus-operating-autonomously-at-evs35/>
<https://www.forbes.com/sites/ianpalmer/2021/06/19/why-norway-leads-in-evs-and-the-role-played-by-cheap-renewable-electricity/?sh-426b397a275f>
<https://www.thetimes.co.uk/article/how-norway-said-goodbye-to-petrol-and-is-charging-ahead-on-electric-cars-z9z766jg7>
<https://www.reuters.com/business/autos-transportation/electric-cars-take-two-thirds-norway-car-market-led-by-tesla-2022-01-03/>
https://www.nio.com/no_NO
<https://zunum.aero/>

Anything that is *halal*, is not *haram*

What is halal and why is it continuously gaining in popularity?

Each of the world's great religions has its own, individual rules, including such related to the consumption of a certain type of food, its origin or methods of preparation. Depending on the religion, these rules can be more or less restrictive. Some of them indicate precisely the types of products that are allowed or prohibited for consumption by the followers.

To what extent can a religion influence observance of rules related to the act of consumption? It depends on the type of religion, the interpretation of the rules, and the determination of its followers to follow its teachings.

One of the most interesting religions whose doctrine specifies in detail, among other things, the rules of consumption is Islam. What determines the doctrine of Islam in terms of the foods that its believers are allowed to consume is the concept of "halal".

What is halal?

Halal is a set of rules outlining the principles of life for the followers of Islam (Muslims) as well as the "Muslim morality". It includes, among other aspects, the nutritional norm that is in line with the Shari'ah Islamic law. Halal means anything that is permitted or in accordance with the laws of Islam.

The opposite of halal is "haram", which in Arab culture means things that are unacceptable or inconsistent with the laws of Islam.

It should be remembered that halal (permissible) and haram (forbidden) apply not only to consumption, but also to other areas of human life.

Muslims distinguish four types of Halal:

- **Wajib** (obligatory) – avoiding obligatory acts is considered a sin (e.g. prayer, fasting in a month, Ramadan);
- **Mustahabb** (permitted and recommended) – non-obligatory but highly recommended actions. Avoiding these acts is not punishable, but doing them scrupulously will be rewarded (e.g. caring for the poor and the sick, great respect for the elderly);
- **Mubah** (neutral) – acts that are not determined by rules, either pro or

against them. You can do them or not;

- **Makrooh** (allowed but not recommended) – acts that, although permissible, should be avoided. Committing them too often leads to sin.

Actions described as halal (permissible) or haram (forbidden) are classified into the appropriate group by an authorised jurist called mujtahid. The legal ruling classifying a given act is called a fatwa.



The difference between halal and kosher

In European culture, halal is usually perceived as the restrictive diet followed by Muslims that is in principle similar to the Jewish "kosher". All the similarity lies only in there being a certain group of prohibited food products and dishes prepared using them.

Muslims generally allow kosher food, but Jewish communities, on the other hand, do not consume halal food. Why? Because the kosher guidelines, for example, prohibit combining different types of food (meat and dairy).

The difference between halal and kosher lies primarily in the ritual slaughter of animals. Although the slaughter process is similar, Jews do not utter God's name before killing every individual animal. They do, however, say a special prayer for the first and last animal they kill. Muslims who follow the halal rules always pronounce the name of God over any animal they slaughter.

A key issue in the kosher slaughter of land animals and birds (Shechita) lies also in the person who carries it out. This role belongs to a specially educated, religious and pious man, a scholar of the Talmud (Shoychet). During Shechita, he recites a special blessing addressed to God (Hashem). In the case of slaughter that follows the halal rules such a procedure does not take place. According to Halal, any adult and devout Muslim can perform a slaughter ritual.

Muslims consider cattle or sheep as a whole to be halal, provided they are killed according to ritual. Jews, on the other hand, consider the front half of the animal kosher.

Interestingly, Islamic law recognises rabbit, wild chickens, crustaceans, ducks and geese as halal. These products, however, are not considered kosher for consumption.

In addition, Muslims look for the source of the enzymes before getting them. When these substances are derived from a non-halal animal, their use in any form is prohibited. In the case of kosher, the origin of the enzymes is irrelevant, since Jews consider all enzymes, even those from non-kosher animals, kosher.

Halal rejects all intoxicating substances, alcohol, wine and drugs. The kosher law, on the other hand, allows e.g. wine as a kosher product.

Although Islamic law recognises the meat of rabbit, wild chickens, crustaceans, ducks and geese as halal, they are not considered permissible under kosher rules.

Why does islam prohibit certain food products?

The dietary rules of Islam are a very interesting, but also extremely complicated and extensive topic. As with other known religions, they have been established and written down to protect followers from the spiritual dangers of consuming certain foods and dishes prepared using them.

Halal cuisine is naturally connected with the Muslim culture and the Quran. Due to the huge number of believers, Islam is the world's second largest religion. Moreover, the Muslim population continues to grow. And so, halal cuisine is also gaining popularity.

The reason behind the popularity of halal lies in the fact that the food allowed for consumption by Muslims is associ-

ated with high quality and safety. As a result, not only the followers of Islam have a positive attitude towards it. Halal products are eagerly bought not only by Muslims, but also followers of other religions. This is especially true in regions where Islam is the dominant religion. This is why the production of halal food is constantly gaining popularity and growing dynamically.

Halal dietary requirements in most cases have historical origins. Although today some of the exclusions seem to be unrelated to any specific, prohibited product, the related bans have survived to this day.

What's important, the individual food prohibitions were not introduced at

the same time. They were introduced gradually, and some of them weren't announced as haram (forbidden) until long after the death of the Prophet Muhammad, who died in 632 CE in Medina. And this is how the halal doctrine has developed over the centuries

Scientific background of the halal rules

Quranic guidelines specify that all foods are halal (permissible), except those explicitly listed as haram (against the laws of Islam or forbidden).

We already know that the most stringently regulated type of food is meat. The Quran definitely forbids eating pork, as well as the blood and meat of dead animals and animals sacrificed contrary to the Islamic religion. It is very scrupulously required that the name of Allah be pronounced over each animal during ritual slaughter.

According to the halal rules, products intended for consumption by Muslims may not contain intoxicants (alcohol, drugs) or other prohibited resources.

How, then, do Muslims explain the prohibitions on eating certain non-halal foods? Here are some examples, cited based on scientific reasoning:

- A pig is an incubator for pathogenic worms and microorganisms that, along with its meat, enter the human body, wreaking havoc in it.
- Fatty acids, the composition of pork fat is not compatible with human

fat and biochemical systems. So, they are harmful to human life and health.

- Dead animals are unfit for human consumption due to the progressive process of natural decomposition, which leads to the formation of harmful chemicals (toxins) that are dangerous to human health and life.
- The blood that is drained from an animal's body is harmful because it contains bacteria, toxins and metabolic products.
- Intoxicating substances, such as drugs or alcohol, in various forms are extremely harmful to our nervous system. They lead to the formation of social pathologies, diseases, and in many cases, even death.

Despite the fact that the above arguments have a scientific basis, the main foundation behind the prohibitions still lies within religion, and thus within the writings of the holy book of the Quran. So, Muslims allow all food as halal as long as

it is "pure". Only then is it fit for consumption. The decision as to the purity of various products is made by the Islamic Jurisprudence based on the principles of Hadith, which determine whether a given animal or bird is halal (permissible) and legal or haram (prohibited) and illegal.



Haram - what foods are not halal?

According to Islam, most foods are halal (permissible) by its very nature. There are, however, a number of exceptions that do not meet the halal requirements, and so, they are classified as haram products (forbidden). These include, for example:

- food of plant origin, i.e. plants that have intoxicating properties, posing a threat to human life and health. This does not apply to those plants from which toxins can be removed.
- food of animal origin, including:
 - predatory birds with claws (falcons, eagles, vultures),
 - all animals for which water and land are their natural habitat (frogs, crocodiles, hippos),
 - pigs and boars,
 - monkeys, dogs and snakes,
 - carnivorous animals with fangs and claws (bears, lions, tigers),
 - rats, mice and other pests,
 - bees, ants and other insects,
 - animals used by humans for transport (horses, donkeys, mules),
 - all animals that were not slaughtered in accordance with the rules of Islam.
- beverages that contain alcohol (vodka, beer, wine and other intoxicating drinks).
- food additives, i.e. all substances, admixtures in liquid form that are derivatives of the forbidden products.

Halal certification

The growing popularity of the 'halal economy' has resulted in a variety of social, economic and cultural stimuli. Among them one that plays a particularly important role – certification of halal products and services (permissible), i.e. compliant with the principles of Islam. Such compliance is confirmed through the halal certificate. The certification procedure usually begins with the verification of the raw material manufacturing process. Each and every of the production processes of a given product, everything from raw materials to finished products, must comply with the rules of Islam. This applies in particular to the production technology, cross-contamination, origin of ingredients, admixtures and additives contained in recipes, and other important areas such as storage or packaging.

Halal certification may involve the following entities:

- producers and sellers of food, food additives, food materials and packaging,
- producers and sellers of cosmetic and personal care products,
- producers and sellers of household, industrial and institutional detergents,
- producers of chemical products, as well as pharmaceutical, medical and printing ones,
- logistics companies,
- service companies: rubbish collection, waste collection and processing,
- producers of feed and feed additives,
- producers and sellers of chemicals and biochemicals, pesticides and fertilisers,
- producers of machines and process equipment,
- producers and distributors as well as packers of drinking water,
- owners of farms and fisheries,
- hotels and restaurants.

The above-listed entities, companies or legal persons may also require halal certificates from their suppliers to certify their own products or services. By certifying their products, they have a chance to gain an additional competitive advantage in the growing halal food market.

One entity offering halal-certified products is the PCC Group – a producer of a wide range of raw materials and chemical additives for various industries. Chemical manufacturers belonging to the structures of the PCC Group offer a number of chemical substances and formulations for, among others, the food industry, cosmetics industry and the detergent industry.

The offer aimed at these industries includes both halal-certified products and



products that comply with the rules of Islam – halal-friendly. So, they are available for the Muslim community for use or further processing. Their production, packaging and storage takes place without the use of haram (forbidden) raw materials and products, that is, for example, alcohol or animal fats prohibited by Islam, taken from e.g. pork or other forbidden animals.

Due to the dynamic development of the halal economy, the PCC Group is constantly expanding its product portfolio of hall products. A similar situation is also taking place in the case of kosher products dedicated to Jewish communities around the world.

Currently, the global market of halal products amounts to about 1.6 billion Muslims, who prefer a specific group of products in line with the rules of their religion. It's clear today that the global halal food market is one of the most dynamically developing areas of the food industry. Which is why, the certification and guarantee of the PCC Group's product safety in terms of the halal requirements is so important, especially for companies offering raw materials and additives for the food, cosmetic, packaging and pharmaceutical industries. The halal certificate, or even just fulfilment of its requirements, is a ticket for the companies of the PCC Group to trade contacts with customers looking for products following the principles of Islam.

Beata Grus
Marketing Department
PCC Group



Why is autumn the most *beautiful* season in the mountains?

It is in autumn that I most often go hiking. Why? For several reasons: there are fewer tourists, it's cheaper, but most of all – the views are enhanced with beautiful autumn colours.

I don't like hiking in the mountains in the summer. This, in turn, is for many reasons. It's difficult to find today a mountain range in Poland that's not been trampled by all those eager to commune with nature and take in the beautiful views, and I don't mean our native tourists only, but also those from abroad. This often contributes to having to wait to go to a mountain top and the trails being full of – not always well-behaved – tourists. I find no rest in the mountains then.

Secondly, the likelihood of a storm in the mountains (which is the second most dangerous phenomenon in the mountains right after the avalanche) in the summer is very high. This also often prevents me from going to the Tatra Mountains. High temperatures are also not very encouraging for me to hit the trail.

The summer is also a season of high prices, which is too a factor in my travel decisions, and I don't mean only those relating to the mountains. In autumn, the occupancy rate in accommodation facilities is lower, the choice options are better, and finally – it's a bit cheaper, and you can relax better after a day of hiking.

However, what draws me most to the mountains in autumn are the unbeatable mountain landscapes that come to life thanks

to the exceptional light and, of course, the unique colours of nature that's slowly beginning to prepare for winter sleep.

My favourite place in autumn is the Western Tatras. This part of the Tatras, although the most extensive area in our part of the Tatras, is characterised by a different type of terrain than that of the High Tatras, much easier and much more conducive to peaceful – though not short – hikes. But it is from the Western Tatras that you can enjoy beautiful views of the High Tatras, which also adds to the attractiveness of this particular range for autumn hiking.





What to bear in mind? Safety aspects in the mountains are absolutely crucial, regardless of the season. Every hike should begin with planning the route and checking the weather forecast. This can be difficult at times as autumn hikes have to start very early in the morning, and the forecast is released in the mornings. Which is why, when already on the trail, you should check the weather forecast on the TOPR (Tatra Volunteer Search and Rescue) website and decide whether to continue or give up hiking further on.

This is exactly what happened to me last year – after getting on the trail early and having already gotten quite high, I had to turn back. In autumn, strong mountain winds come up very often, which effectively stops me from entering into acts of bravado in the mountains. It's better to wait a day or two and then go up and down safely – although fighting wind like that is a challenge of sorts in itself, it's better than risking your own health and potentially that of TOPR rescuers, who are always ready to help in the mountains. I remember the wind intensify so much that I had to hide behind a rock formation, and when it eased up a bit, I started to come back down on all fours, literally. There was no point in risking it, and the sight of parents with a child continuing on up the trail truly amazed me...

What else should you pay attention to when getting ready to go into the mountains? Of course, clothes and shoes for changing weather, a map (although phone apps are really cool and I use them myself, a dead battery or a failure may put you in trouble), and provisions for the trip. But there are two absolute musts – a charged torch (light after dark, especially if you

get lost somewhere on the trail, will be extremely useful for rescuers, but you should also take into account that the days are short) and the free **Ratunek app** [Eng. Rescue] on your phone.

In the event of a threat to health or life (not only yours, but generally anybody in need of help), the app allows rescuers to collect a complete set of crucial information, such as: your location, battery level, the ability to call you back, or even – if you fill in the app's Medical Record Book – information about your health. I strongly recommend this app, and not only for hikes in the Tatras, but also in other mountain ranges (it also works well on water). You don't need to know any emergency number, you just open the app and triple-tap the appropriate button, after which you will be connected to the rescuers on duty. It really makes things easier for everyone in the event of an emergency. Let's just remember one thing: it is an app whose purpose is to save human health and life, it is not a helpline.

Autumn is beautiful, and not only in the Tatras. Every corner of our country is extremely colourful. Plan your weekend trips on trails. The editorial office is waiting for your memories from the golden Polish autumn! The received photos will be published in the winter issue of PCC Chem News.

Maciej Trubisz
Editorial Team

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Catania Restituta

The middle of the holiday season, or right after it – everything depends on you. My last holiday was marked by my longing for the country I love – in this particular, incurable case – for Sicily. In fact, even everything in Poland made me think of it. The hottest days alone were a memory-creating factor, as – you know – it's very hot in Sicily. Another factor was the Mediterranean cuisine enjoyed while sailing between the small islands of Croatia. Different than Sicilian, almost completely, but all the more stirring up a longing for what is best in Sicily – granita, arancino in any form, splendid Catania horsemeat, and – above all – cannolo siciliano (for me, the best ones are in Syracuse in a confectionery shop by the Arethusa fountain), or "Saint Agatha's breasts".

Probably not all of you have already been on holiday. Some of you probably still haven't even chosen a desti-

nation, while September and October are creeping up on us. Ahhh, to be somewhere warm, nice, tasty... well, sounds like Sicily. And with Sicily come Syracuse, Agrigento, Modica, Cefalu, Erice... An almost perfect plan for a trip through three or four civilisations and 3000 years of history. But you can also do it differently, maybe more difficult, quite extravagantly, given that you have Syracuse – the homeland of Archimedes, or ancient Akragas at your fingertips, namely explore the countless monuments of Palermo or Catania. In fact, both these cities – Palermo as well – are separate microcosms. But if Sicily is my universe – let me channel my inner Paulo Coelho – then Catania is that brightest star.

Of course, it would be a sin to write that, compared to Catania, Palermo is wanting in important monuments (suffice to mention Capella Palatina, Majorana or the cathedral itself) or importance throughout history. Certainly not. But it is Catania that this article will be devoted to. In a way.

It takes ages to explore and learn the secrets of such a city, but it's so engrossing that you won't necessarily want to go back to where you came from. You'll want to stay forever. You can get addicted in a year, during a two-week holiday you can at best get a little taste, get the gist of the city's specific nature, and start wanting to come back here next year. Sure, "de gustibus – and even more so de amores (ed. love) – non disputandum est" (ed. to each their own), someone's bound to say.

But back to the topic – Catania is an extraordinary city, seemingly boring and overwhelming with the ubiquitous baroque, but after taking a closer look at individual buildings and streets, it begins to show off its secrets and treasures. As a result of quite tragic events (a powerful eruption of Mount Etna in 1669, followed by an earthquake in 1693 for good measure), it is largely made of Baroque and Classicist tissue created by the architecture stars of that period – Vaccarini, Battaglia, Ittar – the creators of the late Sicilian Baroque. We'll come back to them in a moment. You have to explore it yourself, get to know the ambience and smell of the city, all its faces and tastes. Here, I can serve you merely a starter in the form of a short trip around what (selected) wonders this pearl of Sicily offers. If the starter is too dry, you'll have to buy a ticket and fly there to taste the main course over there.

Let's start in a non-standard way – in the city centre, but not with the Duomo, i.e. the cathedral basilica towering over the square, designed by Vaccarini, Battaglia and Patti and dedicated to St. Agatha, the patroness of the city, so a cathedral that "even the blind will notice" (i.e. will come across and visit it). We'll start with Palazzo Biscari, which, hidden in a small side street (via Museo Biscari), not far behind the cathedral, and integrated into the remains of the city walls, is one of the numerous buildings proving that the reconstruction of the city after the devastation done by nature was carried out on a grand scale, but also with taking into account specific urban and architectural assumptions aimed at minimising the effects of possible future disasters and providing space and places for the possible evacuation of residents. One of the main implementers of the plan was the aforementioned architect Giovanni Battista Vaccarini, who made excellent



use of the available materials, namely marble, sandstone and volcanic rock. On piazza Duomo, he also erected the Palazzo degli Elefanti, the seat of the city authorities, and vis a vis the palace – an interesting monument, and the symbol of the city, composed of a late-antique sculpture of an elephant with an original obelisk from Aswan in Egypt on it. Vaccarini is visible almost everywhere in Catania, and that's good, because his works have given the old part of the city coherence and architectural order. What makes the city centre particularly attractive are the deliberately wide – for those times – main thoroughfares and densely scattered squares, which allow you to appreciate the beauty of Vaccarini's projects from all the right angles.

But this was supposed to be about the Biscari Palace. Built in the same Sicilian Baroque style, finished off with harmonious rococo ornaments, it's witnessed concerts of the best musicians, it even played host to Goethe and Queen Elizabeth II. And Wisława Szymborska, too. The rich collection of numismatic items belonging to Prince Ignazio Paterno Castello has been transferred to Castello Ursino, but the palace itself was not rid of what is most valuable: beautiful stucco, frescoes and furnish-

ings. From the street, the palace blends quite well into the relatively modest surroundings. Only the entrance gate makes you think that "this might be it". The palace looks best from the south side. The facade is decorated with rich carvings, similar to those that you'll see more than once on Catania's most important buildings. If you don't like Baroque and associate Rococo with Baroque, you'll be pleasantly surprised. Those entrusted with the restoration and reconstruction of the city after the 1693 earthquake deserve a "trenta e lode" (an A).



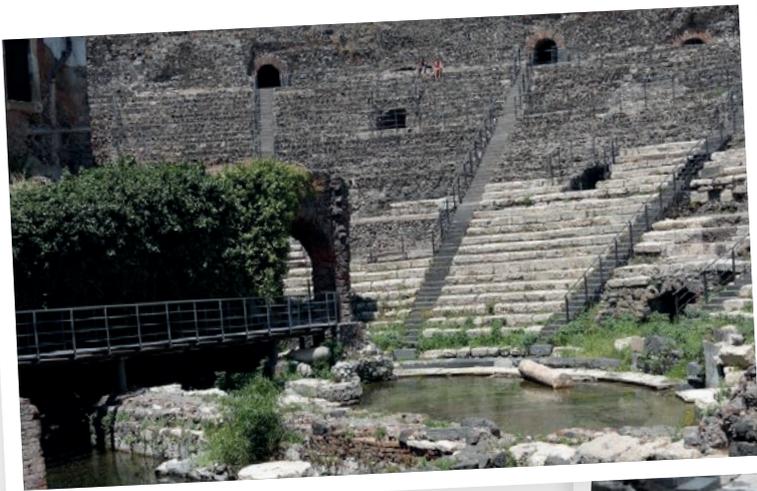
To take a short break from the baroque splendour and plunge into something completely different, let us go to the nearby old fish market (a *Piscaria*), which is to be found by entering an alley hidden in the south-west corner of piazza Duomo, opposite the cathedral itself. We go past the Amenano fountain – placed above an underground river (a bit like in Lviv, in Catania the river too has been covered with the city, and you can actually see it flow only in the corner of piazza Duomo) – and here we are. And *Piscara* is a market where the *modus operandi* as well as the language of the natives who want to sell their goods there have not changed for generations (at least it seemed so to me and, perhaps, other visitors). Sure, any tourist will be bled for all their money in the first two minutes here, but everything you try "at the expense" of the market trader (ultimately, your own expense) will stay in your memory. Just like the colours of this place (fresh seafood, local fruit, cheeses, wine) and its specific smell that persists even in the evening after the market closes. And above all, and in spite of everything, a certain calmness and inborn certainty that "panta rhei" everywhere else, while here life is slow, as in the olden times, tomorrow they will open their stall at the same time, just like their great-grandmother did and her great-grandmother before that. A place like this next to one of the city's most representative sites is typical of cities whose residents have been a permanent, un-

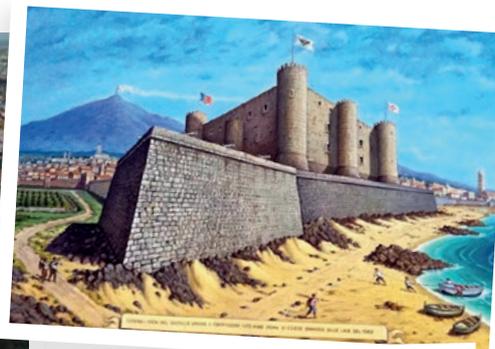


exchangeable element of the urban organism for generations, and tourists are merely a diversion for the nth generation of locals.

We'll speak more of food later on here. Now, let's move on from the fish market to the nearby Greek theatre. We'll most likely be the only ones, or ones of few, to actually get there. Today, the Greek theatre in Catania is hidden behind the facade of a tenement house on via Vittorio Emanuele II, about 100m from the entrance to piazza Duomo. About five minutes from the market. This theatre offers something you won't find anywhere else – preserved architectural details and beautiful marble ornaments. It may not be much, but it shows that the architects of Great Greece were in no way inferior to those who rebuilt the city after the great earthquake in the 17th century. Well, the details in

the theatre prove that it was the Baroque and Classicist artists who had a role model and rich material for inspiration, although what we can see today was brought to light only in the 19th century, and by accident too. Before that, the theatre was basically used as a building material, and a series of tenement houses was built on what was left. Catania is full of gems like this. Someone determined can find here Roman baths, ruins of Roman villas, remains of temples. In Catania you can also see a Roman amphitheatre, probably built in the 2nd century AD. This one, in turn, is visible in a hole in the ground in piazza Stesicoro in via Etnea. I mean, a part of the amphitheatre, because most of it is effectively covered with layers of the city. But it's worth taking a look at the uncovered fragment and once again sense the panache of ancient – in this case – Romans.





Instead of going to the amphitheatre, though, let's move on to a beautifully preserved medieval castle. Once guarding the port, today it stands about a kilometre away from the water line (Etna's doing). Castello Ursino – as this is what I'm all about – is a huge medieval fortress, today picturesquely inscribed in the part of the city that was built on a thick layer of solidified lava that had gone up two thirds of the castle walls. Before that, after leaving the Greek theatre and going to the right, you can visit the museum of Bellini, Catania's most famous composer, and at the same time fill your eyes with the beauty of the Church of St. Francis of Assisi (Ar. Tommaso Amato) – probably the most favourite church of all newlyweds due to the magnificent stairs leading to it and giving the bride and groom a beautiful background for photos (or just a craze). Via Crociferi that starts here is in itself a festival of sacred and architectural splendour. But we're going the other way – to the aforementioned Castello Ursino, which is just a stone's throw away from here.

The castle deserves a visit at least due to the fact that it is not a medieval ruin, but mainly because of the collections moved there from Palazzo Biscari.

Going further, it's worth popping on via del Plebiscito, which surrounds practically the entire old town. Just below the castle, the street is adorned with beautiful baroque tenement houses, the architects of which drew handfuls from antiquity. Higher up the hill, first to the west

and then to the north, we notice that the street changes dramatically. There are more older or more modest tenement houses. The part I like the most begins at the intersection with via Garibaldi. Or maybe it's at the intersection with via Vittorio Emanuele? Doesn't matter. What's important is that somewhere out there stands a brilliant *crispelleria* – a pastry shop with *crispelle*. It's a local delicacy (or maybe not local, but I haven't eaten it anywhere outside of Sicily) – deep-fried rice balls or sticks, served with powdered sugar or honey, or anything sweet. It's far from light, but it tastes great, so it's worth yielding to the temptation. Further on along this street, it's only heavier in terms of food – most of the eateries serve only

horse meat. One after another, small old restaurants specialise in serving horse meat straight from the grill and with Italian – bad but cold – beer or good wine at the right temperature. A must-try, for it tastes good. I myself have seen diehard vegetarians feast on a piece of meat, after which the sinners would crawl on their knees into the church of St. Agatha to confess their sin and receive severe penance. Those for whom Saint Agatha was too far could go to the Church of San Nicolo L'Arena. And while we're on the topic... The Church of San Nicolo L'Arena, the work of, among others, Stefano Ittar. A huge temple with a 100m-long central nave and a facade that, together with the adjacent Monastero dei Benedet-





tini (a former Benedictine monastery), was clearly supposed to overshadow all other religious buildings, and not only in Catania, but all throughout Italy, probably.

As for the above-mentioned Ittar, one of the key architects working on San Nicolo, I came across his name only after starting living in Catania near via Ittar. Imagine my surprise when I learned that Stefano Ittar was a Pole, born in 1724 in Owruż in the then Polish-Lithuanian Commonwealth (today in Ukraine) and educated in Lviv, he gained his skills in Rome. Upon arriving in Catania, Stefano married the daughter of a Sicilian master architect, Francesco Battaglia. Born in Catania, the sons of Stefano Ittar – Sebastiano and Enrico – followed in their father's footsteps. Enrico even went a step further and returned to Stefano's homeland to work under the patronage of the Radziwiłł family during the partitions. He also carried out projects for the Zamojski family (for example, reconstruction of the palace in Klemensów). Later, he became also a drawing and architecture teacher in a secondary school in Zamość. Ittar's sons inherited the talent on both the spear and the distaff side, and we can also be proud of the works of Enrico (Henryk), which survived cataclysms in our area all throughout their history as they are of the highest calibre.

Coming back to the Sicilian works of Ittar senior – the masterpieces he created place this representative of the Ittar family particularly high in the pantheon of baroque architects. Just like his

father-in-law – Battaglia – with whom he worked on the construction of the Church of San Nicolo with its never-finished facade that looks like the ruins of a gigantic temple.

The monastery, along with the Church of San Nicolo, is the second largest Benedictine monastery in Europe, after the palace in Mafra. Stefano was responsible for completing the dome above the central nave of San Nicolo and the concept of the piazza Dante lying at the foot of the church (the semi-circular square in front of the temple, perfectly matching the entrance to the church). While there, in addition to the majestic interior of San Nicolo, you simply must see the interiors of the former monastery, which today is an important part of the University of Catania complex. The architect mainly responsible for the designs used in the monastic buildings themselves was Vaccarini, and they are truly breathtaking – the eastern and southern facades are a row of endless Greek masks supporting each balcony. The combination of black volcanic rock on the ground floor and light sandstone higher up gives a nice contrast and enhances the white effect of the latter.

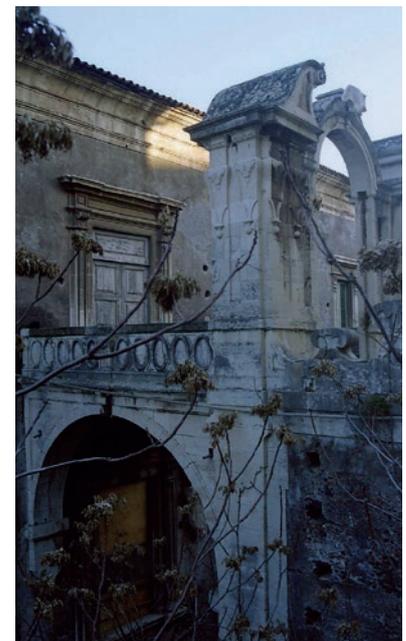
The first courtyard and cloisters make the greatest impression, in the centre of which, surrounded by trees, stands a gazebo, or a coffee house – Caffeaos. Built on a hill and covered with majolica, this small gazebo resembles Arab architecture in style. It is a magical place, perfect for studying, afternoon reading or just being there. It is also worth going to the back of the building,

where the monastery wall sort of meets the lava wall. They are connected by a small bridge at the level of the second floor – the back entrance to the university building. Like the courtyard itself, it is a magical place, definitely worth the few extra steps. It is also worth visiting what is hidden underground and see interiors completely different than the representative main entrance.

On the monastery grounds you can also see remains of the 2nd-century Roman baths and, in front of the monastery wall, fragments of a Roman villa.

As for the Church of San Nicolo, although it might be Ittar's most spectacular project, it's definitely not his best one. He also designed the facade of the collegiate church in via Etnea – the city's most representative street, a stone's throw from the medieval main university building. For me, the facade of the collegiate church is the pinnacle of the Baroque, far better in its artistry and form than the original design of the facade of San Nicolo, although of a much more modest size.

If you want to get from San Nicolo to the collegiate church, go in the direction of via Etnea along Gesuale Clementi street and continue straight on via Sanguiliano. Whoever Clementi was, he must have had something to do with Sicilian cuisine, because that's where, right after leaving piazza Dante, you'll find some great (the author does not guarantee this as the last time he ate



there was in the summer of 2014) typical Sicilian food restaurants. I don't know the current situation, but when I studied in Catania, the first, best and cheapest (i.e. the best) restaurant was the one located right on the corner of piazza Dante and via Clementi, the second one at the next intersection. If there are several barrels of wine at the entrance, one on top of another, and the cold meats are hanging on the far wall, then this is it. You don't have to go any further, just order a lot of wine and then try each of the dishes one after another (all displayed on plates in the window – I forgot to mention that this is a local fast food, but don't worry, everything's fresh, as I don't seem to remember there ever being anything left "for tomorrow" after pranzo).

After the meal, you don't have to head straight for the collegiate church. It's probably better to first find some good ice cream parlour and taste the local granita, traditionally served with a bricoche, and then go to piazza Università and visit the building of the university – founded in 1434, the fourth Italian university after Bologna, Padua and Naples. The most representative hall of the building, Aula Magna, is absolutely breathtaking, but the execution of surface in the courtyard is enchanting as well: the mosaic of white and black stones, typical for this region, creates a beautiful floral pattern visible from space (i.e. in GoogleEarth, at high zoom). The harmony of this place – just like the Monastero dei Benedettini courtyards – encourages you to slow down and soak up the atmosphere (provided there aren't too many tourists). Making a full circle, you can return to the cathedral square and there, in its southern part, at Porta Uzeda, which is a gate leading towards the port, you will find the entrance to the Museo Diocesano, where you can both see the rich collections related to the cult of St. Agatha and take a look at Catania from up above, that is, from the terrace above Porta Uzeda, but you will also have the opportunity to see a bit of the city's ancient tissue – fragments of the Roman Terme Achilliane powered by the underground waters of Amenano.

If someone would like to complete the trip by wandering around less touristic areas, I recommend piazza Majorana or Palestro. The two squares are separated by a majestic triumphal arch, known today as Porta Garibaldi. This too is a project by Stefano Ittar. Right next to



it lies a street named after him. Short and narrow, but still. Porta Garibaldi is visible even from piazza Duomo, when looking along via Garibaldi. It is a very interesting monument, immediately reminiscent of Arab ones. Stefano designed it so that over two hundred years later it would infuriate Polish Erasmus exchange students living in the attic apartment in a tenement house that, in a straight line, was not more than 20 meters away from not so much the monument, but the clock located in its central part. This clock has one nasty characteristic – every quarter hour it chimes the full hour and the number of quarters that have passed since the full hour. I do like clocks, but not enough to wake up every quarter of an hour and adjust the time according to this engineering marvel.

After returning to Poland, for a long time, I missed having Etna outside the window, as well as the permanent feeling of the passing of every quarter of an hour. Further on, behind Porta Garibaldi, starts another city, and if you want to fully experience the atmosphere of Catania, you should delve into this

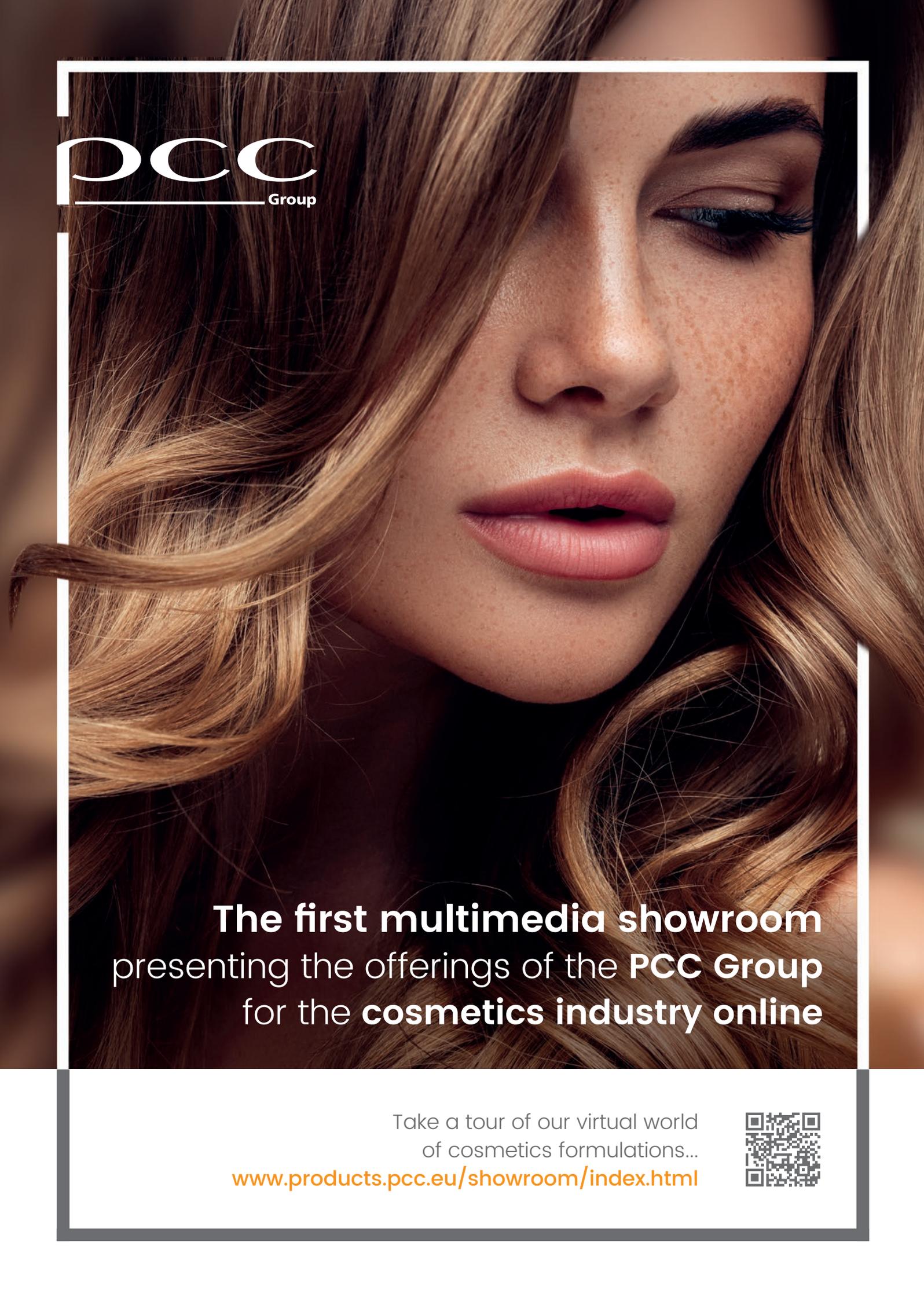
area. Maybe you'll find the way to the city cemetery – Cimitero Monumentale di Catania. Perhaps visiting cemeteries is not that popular, but it's worth changing the custom for a while. Especially in autumn, when you can enter the cemetery just before sunset and admire the monumental tombs of wealthy Sicilian clans in the soft evening light. A bit like Lychakiv in Lviv or Rossa in Vilnius, but here the word 'monumental' in the name couldn't be a better description.

If, after circling the old town and visiting the diocesan museum, you'd like to stir things up a bit to finish off the day, then climbing via Etna up to Stazione Borgo (note – you can also take the underground, which is probably the only one in the world located so close to an active volcano) to then get on one of the Ferrovia Circumetnea railway cars and go on a several-hour journey to one of the old towns scattered around on the slopes of Etna. You're bound to be impressed, as the route oftentimes goes straight through solidified lava. It goes up quite high above sea level and runs through very picturesque towns with majolica-covered church towers, plus it is used by the locals, which makes the prospect of this journey even more alluring. Look at it as an attraction for those who are sickened by too much talking about the superiority of the Baroque over Rococo.

And this is it, as everything else you just have to see, taste or smell for yourself. Let's end this with a quiz question – what contemporary music band recorded their music video in Palazzo Biscari? The first person to answer correctly will receive small company gifts from the editorial office

Bartosz Bańkowski
New Technologies Director
PCC Rokita





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