NTERNATIONAL MEN'S CLUB OF ZUG, P.O. BOX 7212, 6301 ZUG







CTOBER / NOVEMBER 2018



TER FROM YOUR PRESIDENT

Club Constitution

Dear Members,

Those of you who attended our last AGM may recall that a motion was brought during the actual meeting to make a change the Club Constitution. There was some debate about whether our Constitution permitted such motions to be raised during the AGM Meeting or whether they should be submitted well in advance in order for everyone to consider the motions. The Constitution was found to be a little ambiguous regarding this question and subject to different interpretations. It was therefore agreed that the Constitution should be updated to remove this ambiguity and a Constitution Committee was formed for the purpose. The Constitution Committee consisted of honorary members Stephen Butterworth, Max Lustenberger, Bas Veenendaal, Andy Habermacher and yours truly, Bill Lichtensteiger. Roger Brooks also kindly added his contribution. The Committee decided to perform a complete



review of the Club Constitution as it had been 10 years since the last review. A number of improvements were made in order to simplify and streamline the administration of the Club. Unnecessary work and commitments for the Board (in the view of the Committee) were also removed. There were also some minor editorial changes proposed. The main

substantive changes which are proposed are listed below along with the rationale for making the changes:

- The detailed postal address and website URL were removed from the Constitution. It was considered sufficient to state that the postal address shall be in Zug and the Club shall have a website. This allows more flexibility going forward. The commitment for the Board to communicate changes of club postal address to the membership in writing was also removed.
- Membership automatically ceases if membership dues are not received within 60 days from the date on which the membership dues are invoiced or 30 days and after one reminder, whichever is the later. This clarifies that members have extra time to pay, should the reminder be sent late.

Introducing... New members THE IMCZ WELCOMES:

John Arnold

John was born in Tasmania, Australia and after completing his Bachelor of Economics and Chartered Accountant qualifications

left Tasmania for London. He spent 30 years roaming the globe working in a number of countries, after which he tried to make Sydney his home. This was until the call came from London



in 2006 to help with an IPO. After one year, the company relocated to Zug, and John only wanted a 2-year contract. However, the lure of living in the peaceful Canton of Zug meant that he stayed. John is an international corporate treasury specialist, and retired from the workforce in 2016. He then partnered with another treasury professional in South Africa and now provides treasury advisory services to many corporates throughout Europe and Africa through Arnold Phillips Treasury GmbH. John has lived in Cham for 12 years and loves it. With two adult daughters in Sydney, many excursions are made there each year while his wife moves fluidly between their two homes. He is a big Chelsea supporter and watches as many games as possible. You will often find $\mathop{\hbox{him}}$ in Mr. Pickwicks on a Sunday afternoon when Chelsea is playing. Loves cricket, Australian Rules football, and when time permits, plays a little golf. You might find him walking along a Wanderweg in the Canton one day, keeping up his tradition of daily one-hour walks, even walking to see a Chelsea game or a Stammtisch!

New Members continued on page 2...

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- The AGM shall be conducted in its entirety by the sitting Board. It was felt unnecessarily complicated to change over to the new Board half way through the AGM proceedings.
- The discharge of the Board and the Auditors has been added to the AGM proceedings.
- Any amendments to the Club Constitution have to be proposed in writing to the President or Secretary, at least 20 days before the AGM.
- Discussion about the upcoming year's activities has been removed from the agenda. Such matters are usually not yet decided at the time of the AGM.
- The Board may, at its discretion, appoint an existing Board Member to become Vice-President of the Club. The Vice-President has signing authorities along with the President and the Treasurer. All Board Members have to be approved by the membership at the AGM and the President and Vice-President roles have to be specifically approved.
- The Board shall consist of a minimum of three members (currently it is four). The reduction is due to the difficulty experienced in recruiting Board Members. The Board shall ensure that a Membership Secretary is appointed, either as a Board Member or alternatively, as a regular Club Member.
- In the event that there are insufficient Board Members available to perform the Club duties, The Board may at its discretion elect regular Club Members to perform administrative roles (e.g. Membership Secretary or Stammtisch Coordinator).

LETTER FROM YOUR PRESIDENT continued

- The commitment to physically post Newsletters and Membership Directories has been removed. The Newsletter will be sent via email. Both Newsletter and Membership Directory will be available online via the Club website, as is the case today.
- Changes in memberships details should be communicated to the Membership Secretary and not just a Board Member, as currently
- The Board shall ensure that the Club complies with Swiss Data Protection Regulations. Data privacy is a hot topic today and we need to protect our members' personal data, in accordance with the law.
- The current Article 28 which described how to communicate with the Board, was removed in its entirety. This was felt to be obvious; just come along to the Stammtisch and buy us a beer!

Please note that Article 6 of the current constitution allows Club Members to invite men of prominence, at the discretion of the Board, to become Honorary Members of the Club. It was felt worthwhile to mention this because Members may perhaps not be aware of the fact.

Both the current and the new proposed 2019 Club Constitution may be found via the links below. You are all invited and encouraged to review the new proposed Club Constitution which will be voted on at our next AGM which is planned for Q1 2019. The exact date for the AGM has not yet been decided but you will all be informed of the date in good time, in accordance with our current Club Constitution. Should you have any comments or questions regarding the new proposed Club Constitution, please do not hesitate to contact myself or any other member of the Constitution Committee (listed above). We will be happy to answer your questions or clarify any potential areas of confusion.

Finally, I would like to express my thanks to the members of the Constitution Committee and Roger Brooks for spending their time in performing the review and update. I believe the new proposed Constitution provides a good solid basis for running the club through the next decade.

Bill Lichtensteiger **President**

Current Constitution Proposed new 2019 Constitution

Introducing... New members THE IMCZ WELCOMES:

Yue Zhou

Yue hails from Shanghai. China where he grew up and went to school and then to Tongii University where he got his bachelor degree in Automotive Engineering. After graduation, he



moved to Germany and continued his studies of automotive engineering and robotics in Aachen. Thereafter he came to Zurich and studied at the ETH and EPF in Lausanne. He appreciated life in Switzerland, loved the organisation, direct democracy and neutrality. Add to it the beautiful nature and scenery and his mind was made up, he decided to stay here. Currently he is working with a global management-consulting firm in Zurich, Accenture Schweiz. He enjoys his work very much as it gives him the opportunity to meet, interact and collaborate with people from different backgrounds and countries. In his leisure time, he likes to learn languages, doing voluntary work as well as meeting people. His favorite sport is basketball.

Ronan Gayme

Ronan was born and raised in France, but learned English from his Irish mother. Soon after he got his MSc in industrial engineering, he started working abroad: US, Spain, Germany,



Switzerland, South Africa, and back to Switzerland. He occupied a variety of management positions in the Supply Chain, using the Lean Six Sigma methodology to improve performance, which often led to the design and deployment of new IT applications. He is passionate about the Energy sector, an industry where he has been working for the past 10 years. There are so many complex economic ramifications to disentangle in everyday life to address the climate change issue. He has a 7-year old daughter, and moved to Zug a couple of months ago. He enjoys regular runs around the lake of Zug and experiments weekly with new recipes (cookups), as well as skiing across Switzerland and hiking / cycling (depending on the season).

Jörg Przybyla

Jörg hails from Stuttgart, Germany. He started his professional carrier as commercial project manager with Siemens. There he had to deal with



the commercial aspects of several large projects: power plants, hospital equipment and metering, etc. He moved later into the headquarters, and was subsequently sent to Switzerland to deal with a new challenge in the metering business. He enjoyed coordinating the M&A (Mergers & Acquisitions) projects with Landis+Gyr, organising corporate restructuring and handling corporate secretarial stuff. At present, he is working as the Export Compliance Manager at MAN Energy Solutions (formerly MAN Diesel & Turbo) in Zurich. He built a small team of experts from scratch to take care of customs, export control and supply chain issues. His attitude was not only to please the management in a traditional compliance sense, but also to add value for the company through his work. In his spare time, he loves outdoor sports like mountain biking, hiking, skiing and water sports. He also likes social life and enjoys philosophic discussions with friends.

David Pate

Despite being born in Germany, Dave is Canadian from Ontario, Canada, His parents are from Ontario and Liverpool. He studied Chemistry at Liverpool-, Computing at Oxford- and



Project Management at Aberdeen Universities. His early career was in chemical distillation and pharmaceutical industries. Later he moved into computing and project management. He has lived and worked in Germany, South Africa, Canada and the UK. He came to Switzerland in February this year and so far he has enjoyed every minute of it. Among others, he is a registered Canadian Immigration Consultant, however, his career is in IT security. His hobbies include snowboarding (with limited skill), climbing, hiking and water sports. He has enjoyed his time in Switzerland, which gives him plenty of opportunities to engage in his passions. He also looks forward to attending IMCZ events and will take the opportunity to meet and talk to other club members. David has three daughters who currently live in the UK.

Denis Biancuzzi

Denis was born and bred in Italy. Since early childhood, he had a passion to understand the real nature of things, which prompted him to study the mother of all



sciences, 'theoretical physics'. After graduation he had the brilliant idea of applying his acquired knowledge to the financial markets. He created new models to interpret the peculiarities of these markets. Soon thereafter, he accepted the opportunity to give lectures on the subject at the PhD School of Finance in the University of Trieste. His lectures covered portfolio financial mathematics, management, management methodologies, and ratings. He also did research on related fields. Later, he decided to start his own company as a fee-only financial planner, where new models of portfolio management, business valuations, credit ratings, and trading algorithms were designed and developed. He decided to move to Switzerland seven years ago, the last two of which he has spent in Zug. At present, he is working as a consultant for banks on management of regulatory and risk issues. Denis enjoys reading, writing and hiking as well as playing jazz on the piano. He loves to dip into new theories on the frontiers of science (e.g. superstring theory) and technology (e.g. Fintech related).



can be found on our website

www.imcz.club under 'About Us' section

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INTERNATIONAL MEN'S CLUB OF ZUG, P.O. BOX 7212, 6301 ZUG

EVENT NEWS IMCZNEWS

UTURE EVENTS



Concert with Young Soloists, 21 October 2018, Villa Hammer, Cham

Winners of the Swiss Youth Music Competition will perform works by Mozart, Händel, Schubert, Williams, Pujol and Glinka on Sunday, 21 October, starting at 17:00 in the bathhouse of the Villa Hammer in Cham. Admission is free; there will be a collection. Parking is limited, so it is recommended to take bus number 43 from Cham railway station at 16:46. Get off at the "Hammer" stop on the Sinserstrasse. Please see the Guidle website for more details.



IMCZ Ski Evening and Meet & Greet with the ZIWC THURSDAY, 25TH OCTOBER, 6:30PM TILL 8:30PM

We will first welcome the ladies from our sister club who will join us for the Autumn meet and greet meeting. Afterwards club member Joseph Dow will introduce his all star cast of experts to ring in the ski season. The latest technological and safety developments in ski equipment will be shown. Top Swiss snowsports companies will be there including Kius, RTC skis and Alpine Sports Andermatt and the best boot fitter in Switzerland will also be present.



Halloween Party

SATURDAY 3RD NOVEMBER, 7.30PM TILL MIDNIGHT

Our sister club, the Zug International Women's Club, will throw a Halloween bash. Let's plan to join them in our most gruesome Halloween garb at the Siehbachsaal (where we held our Summer BBQ) for food and fun. Further details will appear on our website



Autumn New Members Reception

THURSDAY 15TH NOVEMBER, 6PM TILL 8.30PM

A Club Members meeting to welcome our new Club Members. Great cheerful moments in a friendly atmosphere with club sponsored beer and soft drinks. The Swiss traditional dish of "Berner Rösti" may also be ordered.



Round Table Talk-New Modern Buildings THURSDAY 13TH DEC. 2018 7:00PM TO 8:00PM

Speaker: Jeremy Towler

Modern buildings are totally different from the buildings we have known until some years ago. Progress in material, technical, architectural, heating, communications, security etc. areas are visible to everyone.

For more Information contact: Mr Enrico Dell'Angelo



PRINCIPLES FOR INVESTING

- No emotions allowed
- Investing is not trading is not speculating
- Monitor on a monthly basis
- Capital gains more important than yield
- Stocks go up/down longer than expected
- Asset allocation categories 0 100%
- Start asset allocation with cash category
- 12 equities is enough diversification
- Cut losses by admitting mistakes
- Let profits run but take partial gains

A Round Table Discussion

During the latter part of the Stammtisch on Thursday July 26, IMCZ member Christian Wagner started a round table discussion session on investment. Due to the nice warm summer weather, the Stammtisch was held outdoors on the veranda of the City Garden Hotel. Christian summarised the principles for investment in ten points which he lovingly called the "ten commandments", and distributed them around.

A lot of discussion erupted as he went through the commandments one by one with many questions and answers thrown about. If there is one central issue, on which everyone agreed, it was not to trust what your banker says or recommends.

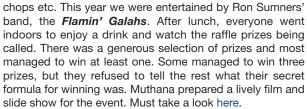




EVENT NEWS IMCZNEWS

Annual Barbecue at the Siehbachsaal

Once again, the IMCZ annual barbecue was a stunning success. The venue at the Siehbachsaal proved to be ideal: close to the lake, easy to reach by public transport and with ample room both outdoors and indoors. We were blessed with truly ideal weather: blue skies and pleasant temperatures. This year's theme was Australia. and true to Aussie customs, the grills took center stage. A huge variety of meat was on offer: kangaroo, crocodile, ostrich plus the usual lamb



The IMCZ board would like to express their thanks to all the volunteers and helpers whose considerable efforts contributed to the success of our Aussie Summer BBQ. In particular: John Arnold, Kusi Gysi, Markus Bütler, Roger Brooks, Ilham Yuksel, Danièle Chanson, Jörg Przybyla, Tammy Bütler, Eve Arnold, Sonja Donnert, Flamin' Gallahs Band - Ron Sumners & Co., Kitchen Staff-Anna D'Onofrio & Co.







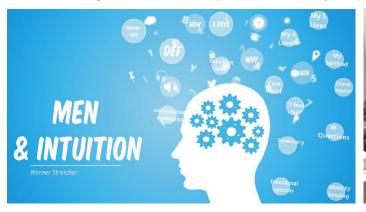




Men and Intuition

At a special Stammtisch at the Park Hotel on Thursday September 13, 2018, some 25 IMCZ members

gathered to hear IMCZ member Werner Streicher talk about an interesting and rather unusual topic, "Men and Intuition". Using a specially prepared PowerPoint, he took us through his presentation and explained his coaching methodology. He showed how he developed peoples' intuition to help coach people out of difficult situations, such as depression, work-related difficulties or family issues. He concluded by carrying out a live coaching session with a female patient. All in all a very interesting and informative evening.





IMCZ Hike on Sunday September 16, 2018

The six intrepid explorers started the hike from the Raten after having first had a customary coffee and croissant in the restaurant. The weather was dry and mostly sunny with ideal temperatures. The route started slightly uphill and after the local peak was reached things quickly flattened out and the views over the Aegerisee began to emerge. The Kleine and Grosse Mythen were unusually aligned one in front of the other, making them barely recognisable, as normally they are viewed side by side. The paths were easy going and the remainder of the hike down to Morgarten was mostly downhill, making for a relaxing stroll. We encountered numerous young cows along the way who were still grazing in the pasturees. We lost Enrico for some of the time but it turns out he was foraging in the woods for porcini (Steinpilz). He emerged with a huge bag full of them. It is obviously a great benefit to know your mushrooms, as a free meal can be gathered and later enjoyed. The Morgarten Restaurant provided a great selection of wild game specialities, including Damhirschgeschnetzeltes (fallow deer), which Enrico and I both enjoyed for lunch. The final phase of the hike took us around the shores of the Aegerisee via Naas to Unterägeri. I myself and grillmaster John did jump on a boat at Naas just for the sheer fun of it, leaving the others to complete the hike on foot. A good day out was enjoyed by all.



Bill Lichtensteiger







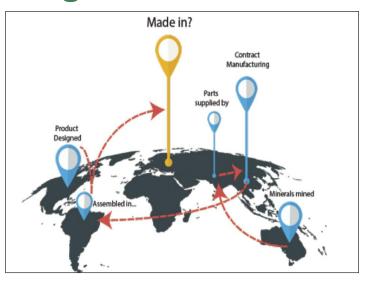
Country of Origin Labelling: Made on Earth!

Contributed by IMCZ member Remo P. Jutzeler van Wijlen, Head R&D Sponser Sports Food Ing. Appl Food Sciences, MAS Nutrition & Health ETHZ

In Switzerland, the label declaration for the country of origin of finished food products has been mandatory for many years. Provided the labelling of the food and the address of the manufacturer or distributor do not cause ambiguity, or create confusion about the country of origin (COO) of the product, its declaration can be omitted on the label. To qualify as a COO, until last year it was required that the product was "sufficiently" treated and manufactured in that country, referred to as "receiving its characteristic properties" there. If a single country cannot be defined, the next smallest geographic territory had to be indicated (e.g. from the European Community or from the Baltic Sea). For example, since May 2017 it is compulsory to declare the fishing grounds instead of the COO for sea fish. Additionally, for an ingredient, the COO must be mentioned on the label if it comprises more than 50% of the product and differs from the COO of the finished food. This is particularly the case if the label could give the impression that a major ingredient stems from the same COO.

So far so clear. However, as for so many aspects in life, the devil is in the details. According to the food law I refer to, a country qualifies as COO for plants if the plants have been harvested there, and for meat if the cattle put on "the major part of weight" or "lived the major part of their life" there, for eggs if they have been "harvested/laid" there. It comes clear that clear distinctions may become difficult in practice, imagining eggs laid in one country, the chickens grown up in another, laying eggs there, and finally slaughtered in yet another country. Or vegetables, where seedlings come e.g. from the Netherlands, sold to a Swiss farmer, who plants them in his rented near-to-border French territory field before harvesting and selling them in Switzerland.

The definition and interpretation problems became even worse with the recently established "Swissness" law. This is not about food law, but rather a Swiss guarantee act. The Swiss farming lobby did a good job and enforced that vegetables or milk from cows grazing on adjacent French border territory are still considered to have Swiss origin. On the other hand, instead of the usual 50% definition of a "major



ingredient" for animal-derived ingredients such as milk or egg powder, a 20% limit now applies. All in all, this new regulation can lead to absurd

- the mandatory declaration of "made in Switzerland" (food law) and at the same time the prohibition of the use of the Swiss flag on the same product
- · Authorisation to display the Swiss flag on a cookie, while using tapioca starch instead of Swiss wheat starch because the former does not grow in Switzerland.

For political reasons, the Swissness regulation completely ignores the innovation, R&D and know-how involved in the manufacture of Swiss food, in contrast to other industries (e.g. watches). Swiss made has clearly a different meaning to Swiss origin when it comes to (processed) food, whereas it can with good arguments considered identical when applied for agricultural basic food stuffs (milk, eggs, meat, vegetables, cereals, etc.).



As annoying and impractical the Swiss regulatory framework may be, the European Community managed to top it with its newest regulation EU 2018/775. The declaration of the COO is authorised to be as vague as "EU", "non-EU" or "EU and non-EU"! in conclusion, the last option at least guarantees "origin planet earth". It is doubtful that this regulation is satisfactory from the perspective of the consumers...









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A Novel Way to Mitigate Global Warming

Contributed by IMCZ honorary member and Newsletter Editor Muthana Kubba

The world certainly appears to be in a sad state these days. Of course, you might say, it has always been in a sad state, depending on the way you look at it. However, if you agree that the climate heritage we are leaving our daughters, grandand greatgrandchildren is bad, then we should indeed be in a very sad and depressed state. A few years ago, there was a glimmer of hope that the battle against global warming might be won, but now, with the US pulling out of the Paris agreement to limit CO2 emissions, all hope seems gone. Indeed, with the heat wave we endured this summer, which broke virtually all previous records; there is talk of a 'hot Earth', meaning that the point-of-no-return has already been passed.

Some people, especially those in power and in a decision-making position, are claiming that climate warming is a hoax. They are playing with fire in addition to closing their eyes and ears to the undisputable scientific facts documented by scientists all over the world. Furthermore, they are not only being stupid, they are being very irresponsible not only to their nation but to all of humanity.

What many people do not realise is that global warming is not only an unpleasant phenomenon, which will contribute to rising seawater levels that might affect the livelihood of the inhabitants of a few low-lying Pacific islands. It is far more dangerous. Even if we accept the risks of more extreme weather patterns, with more devastating hurricanes, typhoons, changing rainfall patterns making many arid areas uninhabitable, very cold winters and extremely hot summers etc. etc.. this is nothing compared with what awaits us if we, the human inhabitants of planet Earth, let global warming continue and average temperatures keep on rising.

At some stage, nobody knows exactly when, but it will definitely come, we might reach the point of no return. Some claim we have already passed it. High temperatures would cause even more greenhouse gases to be released (permafrost has lots of methane, one of the worst greenhouse gases) and this in turn would accelerate the temperature rise. Quite possibly life as we know it on planet Earth would cease to exist. Just look at the night sky and admire our beautiful neighbour planet Venus adorning the night sky. Beautiful as it may be, it has a surface temperature of 400 degrees C. It has passed the point of no return.

The Global CO2 emissions at present are around 10 Gigatons (1010 tons) annually. Its concentration in the atmosphere has increased to 411 ppm (parts per million), as compared with a range from 172-300 ppm in pre-industrial times. Most experts reckon that, by the time it reaches 1000 ppm, large parts of the globe will become uninhabitable. A bleak future indeed. In fact, we even had a foretaste of what might befall us this summer a clear warning sign.

What can be done about Global Warming?

Even if there is political will, which at the moment seems lacking, there is surprisingly little that can be done to curb global warming. Using renewable energy is a modest start, but it is a drop in the ocean. All the renewable energy produced at present: hydro- and wind power, photovoltaic (PV), solar thermal power stations, wave, and tidal power generators, all these combined make up less than 2% of the total power generated. Nuclear power generation has made a small dent, but has brought its own problems, from disposal of spent fuel to the possibility of extremely dangerous accidents, e.g. Chernobyl and Fukushima.

In almost all developing countries, the demand for energy is enormous and virtually insatiable. Emerging major economies like China and India cannot build power stations fast enough. It is illusory to expect them to choose environmentally friendly but expensive solutions. Fossil fuels are abundant and cheap, especially the worst pollutant, coal. We are definitely moving towards a disaster.

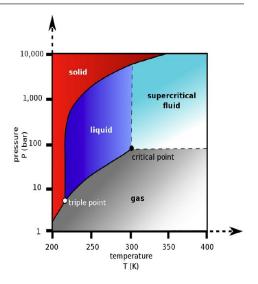
It is ironic that the potential solution for a way out of the abyss that we are running towards came from the very country which is the worse polluter on the planet. The US pumps more CO2 into the atmosphere than the rest of the world put together.

At first sight, the proposed solution is counter intuitive and on first reading difficult to imagine. However, the indications are that it might make a big difference.

Supercritical Carbon Dioxide

Not many are aware of the fact that CO₂ has an additional state besides gas, liquid or solid (dry ice). It can also be supercritical. Near room temperature (304°K = 31.1°C), and at a pressure of 73 bar (1 bar = atmospheric pressure at sea level), carbon dioxide becomes

supercritical. A substance in a supercritical state is neither gas nor liquid, but shares properties of both, and is referred to as sCO₂. (See note below on supercritical substances). As a working fluid in gas turbines for power generation, sCO₂ offers many advantages: It is chemically stable, low-cost, non-toxic, non-flammable, and readily available. What is more it considerably increases the efficiency of the turbine.

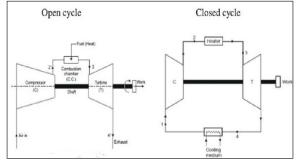


It has many uses; it is now already commercially used as an excellent, environmentally friendly refrigerant both for air conditioning and heat pumps. It is a far cry from the terrible HFCs (hydro-fluorocarbons), e.g. R-22, also known as Freon, used so far, which are environmentally very harmful. More significantly, it will be used for closed cycle gas pressurised turbines to generate electric power.

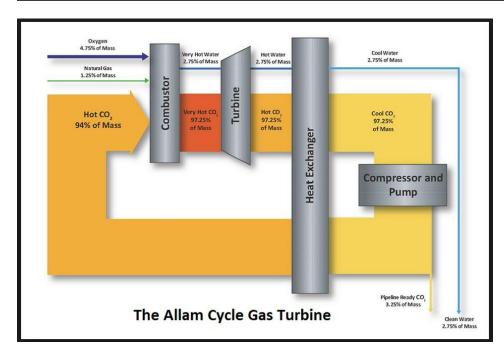
The Clever Bit

The unusual trick about this method, also called the Allam cycle after the person who invented it, a British engineer called Rodney Allam, is to use carbon dioxide itself to run the power plant. In its super fluid state, carbon dioxide is quite suitable as a working fluid in a pressurised gas turbines, with an efficiency that steam turbines can never reach.

Gas turbines need a working fluid. If the working fluid is used repeatedly then it is called a closed cycle turbine. If on the other hand the working fluid is renewed all the time, then it would be an open cycle turbine. We are all familiar with the open cycle gas turbine. All jet aircraft engines are open cycle gas turbines. The working fluid being air. Of course, the aircraft jet engines are required to generate thrust not electricity. In a closed cycle gas turbine, on the other hand, the working fluid is recirculated and only the fuel and the oxidiser are injected.



SCIENCE/TECHNOLOGY



The Allam cycle system is a nearly closed cycle turbine with super critical carbon dioxide as working fluid and the energy is supplied by "burning" natural gas or coal. The excess CO₂ is collected from the compressed fluid. The following block diagram illustrates the net intake and output of such a turbine:

Total Input: 4.75% of mass oxygen, 1.25% of mass natural gas, 94% of mass hot recirculated CO₂.

Net Output: 2.75% of mass water vapour, 3.25% of mass, pipeline-ready carbon dioxide

The cutting-edge advantage of such a turbine is that, by using a mix of oxygen and natural gas, we generate only water vapour and pipeready carbon dioxide, which would be more easily disposed of or stored rather than pumped back into the atmosphere. This technology is not a substitute for fossil fuel energy consumption, but rather a way of greatly increasing the efficiency of such power generating systems and simplifying the recovery of CO₂ from the process.

Sequestration of Carbon Dioxide

There have been many attempts to sequestrate or remove CO_2 from the atmosphere. However,

since the concentration of CO_2 in the atmosphere at present is 411 ppm, it means that one cubic metre of air there contains only 411 cubic cms of CO_2 . Therefore, in order to remove one ton of CO_2 (specific weight 1.836 kg/m³) from the atmosphere, we need to process 1'325'200 m³ of air. At present, therefore, it is simply impractical to sequestrate CO_2 directly from the atmosphere.

The significance of the Allam cycle method of power generation becomes apparent. Its by-product is piped CO₂, ready to be removed

and stored. One of the better known methods for storing it is 'Geological Storage'. Carbon dioxide is injected in supercritical form directly into underground geological formations such as oil and gas fields, saline formations, abandoned coal seams, saline filled basalt formations etc. There are of course several other ways to store removed CO₂ which can be used once the Allam cycle is adopted on a large scale.

Conclusion

It is the duty of every conscientious engineer to explore and not leave any stone unturned to find ways to halt global warming. The new turbine is suitable for utility power generation and is both simple and provides a basis for taming some of the billions of tons of carbon dioxide pumped into the atmosphere every hour by traditional turbines. The piped carbon dioxide waste, can be stored in caverns, or liquefied and stored or sold off to other utilities which need it as a working fluid.

Wikipedia - A supercritical fluid is any substance at a temperature and pressure above its critical point, where distinct liquid and gas phases do not exist. It can effuse through solids like a gas, and dissolve materials like a liquid. In addition, close to the critical point, small changes in pressure or temperature result in large changes in density, allowing many properties of a supercritical fluid to be "fine-tuned". In addition, there is no surface tension in a supercritical fluid, as there is no liquid/gas phase boundary. (This helps improve the flow characteristics in a turbine and improves efficiency.)

Further reading

The Allam Power Cycle

https://en.wikipedia.org/wiki/Allam_power_cycle

Power Plant with no air Pollution

https://www.vox.com/energy-and-environment/2018/6/1/17416444/net-power-natural-gas-carbon-air-pollution-allam-cycle

Blueprint for a Miracle, Power Plant runs on CO2 https://ieeexplore.ieee.org/document/8362222/

Sequestration of Carbon Dioxide

https://en.wikipedia.org/wiki/Carbon_sequestration

Full Description of the Allam Cycle by Rodney Allam et al

https://www.sciencedirect.com/science/article/pii/S187661021731932X/pdfft?md5=1268 c1ff757100bbc82f84c0fa95dddc&pid=1-s2.0-S187661021731932X-main.pdf





Instant Messaging Platforms WhatsApp & Alternatives Contributed by IMCZ Webmaster Roger Brooks

Few are aware that Instant Messaging (IM) is older than the World Wide Web and even older than the Internet itself. Operating Systems (OSs) as early as the 1960s, such as Multics (predecessor of Unix) supported chats between users connected to a local area network (LAN).

With the advent of the Internet in the 1970s, and throughout their heyday in the 1980s, many Bulletin Board Systems (BBSs) provided chat services such as Internet Relay Chat (IRC) to their subscribers. As the World Wide Web (WWW) attracted more users to the Internet in the 1990s, Internet Service Providers (ISPs) such as America On Line (AOL) began to offer more user-friendly messaging systems. However, most of these systems still required synchronous communication. That is, chat participants had to all be online simultaneously.

SMS

Instant Messaging did not achieve widespread popularity until widespread adoption of mobile telephones made it possible to carry a device capable of Instant Messaging in your pocket. Of course, these devices were limited at first to communication over the telephone network and, like the early IM applications, were limited to short text messages, hence the Three Letter Acronym (TLA), SMS (Short Messaging Service).

MMS

As mobile telephony and its users became more sophisticated, this was expanded to Multimedia Messaging (MMS). Were it not for the greed of the mobile network providers and for the advent of internet capable "smartphones" in the late 1990s, this might have remained the dominant messaging technology. Other than BlackBerry Messenger (BBM), which some users preferred for its encrypted, and therefore more secure, communication, there were no serious challenges to the dominance of SMS and MMS until WhatsApp appeared on the scene in 2009. Skype had appeared earlier, offering voice and video communications via Internet, but mobile bandwidth and computing power were not yet adequate for widespread mobile use.

WhatsApp

Nowadays there are many IM services, most of which require installing proprietary software on the device to be used for messaging. Many people exchange messages on the popular platform, WhatsApp, which initially achieved popularity as a way of avoiding the charges levied by mobile telephony providers on SMS and MMS.

Originally intended for one-to-one communication, WhatsApp endeared itself to users by costing only data transmission



charges, which are negligible for short text messages and free of charge if the user has a WLAN connection. WhatsApp grew so quickly that for several years it levied a modest usage fee to curtail growth. In 2014, it was already the most popular text messaging application. Since then it has attracted users of other services. such as Skype, by adding features such as voice and video communication and group chats. While it is possible to use SMS for group messaging, it is much easier to do with WhatsApp.



Many WhatsApp users are unaware that, since 2014, WhatsApp belongs to Facebook, which has once again made it free of charge. At the time of the acquisition, Facebook claimed that it was technically unfeasible to combine the data of WhatsApp users with those of Facebook and promised not to do so. This helped it to get EU permission for the merger. Since then, however, Facebook has reneged on that promise and was consequently fined by the EU.

The vast majority of users accept (as they do with most digital applications and services) the terms of use without reading them. Those who do read them are often surprised by what they are agreeing to. In essence, one gives Facebook permission to use one's data however they want. This data generally includes the user's entire address or telephone book. While it is possible to use WhatsApp without giving it access to one's contact list (at least under Android), it is quite awkward to do so, as contacts on WhatsApp are then identified only by their telephone numbers.

The Swiss have an expression, "Wer zahlt, befehlt", literally, "Who pays, commands". In other words, the service is beholden to those who foot the bill, in the case of Facebook and WhatsApp, their advertisers. In the American formulation, one says, "If you aren't paying for the product, you are the product", i.e., you (or your data) are being sold to someone else.

WhatsApp's attractiveness lies in its popularity. Its widespread penetration makes it likely that you will find anyone you wish to contact in their directory. The price for doing this, however, is to share your directory with them. For those who prefer not to, here are some alternatives.

Threema

The obvious answer to the problem of being the "product" is to pay for it yourself. Threema, developed by Manuel Kasper from Albisrieden, is made (and hosted) in Switzerland and uses public / private key cryptography to ensure secure

transmission. It does not even require installing proprietary software: a web version makes it accessible from any platform.

For the truly paranoid, Threema can be used anonymously, and does not require access to the user's address or telephone book. It even deletes all traffic from its servers immediately after transmission and can therefore not be forced to divulge information about who communicated with whom when. It even allows verification of the identity of contacts by exchanging QR codes offline, thereby reducing the possibility of being victimized by an impersonator.

Although Threema uses open-source libraries for encryption and decryption, much of its code is proprietary. However, the biggest disadvantage is that it is difficult to convince those with whom one wishes to communicate to pay an initial charge for the service, when many other offerings are free of charge. The price is only SFr. 2-5 for a permanent license, but, as Facebook found out earlier, having to pay at all is a hurdle for many who are reluctant to use a credit card for the online purchase.

Telegram

Telegram was developed by the Russian entrepreneur, Pavel Durov. The client software is open-source, but the server software is proprietary. Telegram is said to store more information than other services on its servers

and is therefore thought to be less secure. It is also criticized for not using end-to-end encryption by default (a criticism also leveled at WhatsApp). Nonetheless, Telegram has

SCIENCE/TECHNOLOGY•

been banned in both Iran and Russia for refusing to cooperate with authorities.

Telegram is a non-profit organization and is funded by its founders, as well as by the Initial Coin Offering (ICO) of a cryptocurrency called "Gram".

Signal

After it was criticized for insecure messaging, WhatsApp adopted encryption technology from Open Whisper Systems,



the developer of Signal. However, since WhatsApp's code is proprietary, some suspect that WhatsApp could contain backdoors compromising security. As the name "Open Whisper Systems" suggests, Signal's code is open-source and Signal has even been recommended by the notorious whistle-blower, Edward Snowden.

Signal uses hash codes to match contacts in its database with those in a user's telephone book and therefore does not itself store or access any human-readable contact information.

Open Whisper Systems was founded by Signal developer Matthew Rosenfield, also known as Moxie Marlinspike, who is known for discovering several flaws in SSL and other Internet security systems. Open Whisper Systems is supported by donations and grants, so it is free of charge for end users. It allows users to control how much history is retained, and for how long.

Conclusion

There is neither space nor time here to handle all of the potential alternatives. I have concentrated on those that I consider the most trustworthy. Others include Line, the venerable Skype, Viber, WeChat and Wire. Here are some resources for those interested in further research:

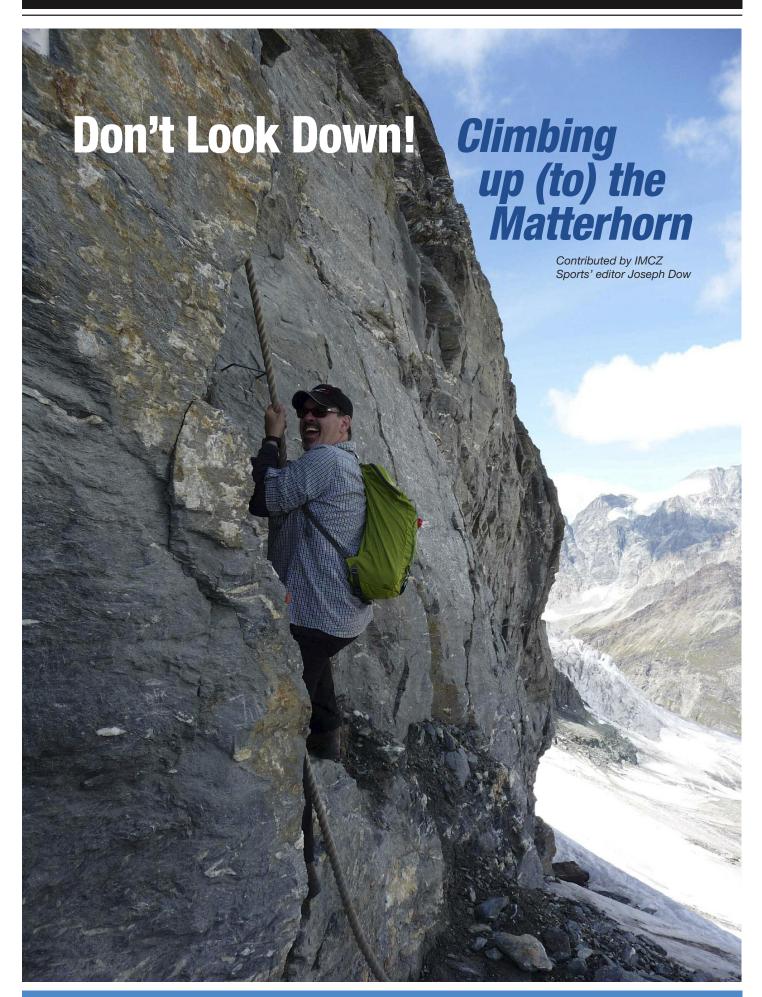


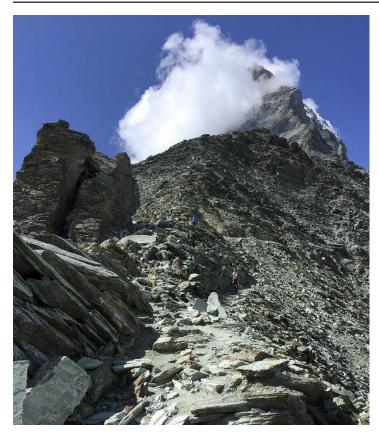
https://en.wikipedia.org/wiki/Comparison_of_instant_messaging_clients

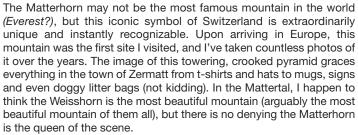
https://www.zylstra.org/blog/2018/05/whatsapp-telegram-signal-threema/

https://www.reddit.com/r/Threema/comments/41nfqw/i_just_learned_about_threema_ why_should_i_use_it/









So, when I heard the Zermatt authorities were bringing in a group of Sherpas from Nepal to repair the Hörnliweg trail up to the Hörnlihütte, which was also being renovated, a visit leaped to the top of my list. The window for this adventure is fairly tight (July to September) and weather always has to be considered, so it took me a few years. Finally, IMCZ member Chris Calder and I made the attempt in mid-August. . . .

Hörnliweg to the Hörnlihütte at 3'260 m ü.M

Hiking/Climbing

The Hörnlihütte is a mountain hut, originally constructed in 1880, perched on a ledge just below the Matterhorn's Hörnligrat, the ridge between the east and north faces of the Matterhorn, and is reached via the Hörnliweg path. Not surprisingly, weather was a concern on the day we went. Rain was forecasted but the arrival time was not fixed and sounded likely to hold off until the late afternoon. The route is considered "difficult" and that can mean many things when hiking in Switzerland. When I asked about the risk at a climbing shop in town, a guide told me it was fine unless I went up there drunk and wore sandals like some of the tourists. So, the adventure was a "go".

There is really only one route up, made up of three sections of climbing: over a hill past the new Hirli chairlift, up over the large pointy plateau jutting out in front of the main mountain with a flat walk over some loose scree, and the steep zigzag climb on broken rocks up to the hut. Another short climb leads to the main wall above the hut providing access to the Hörnligrat.

We used heavy-duty backpacking boots, which are the appropriate footwear for this climb. For the casual hiker in decent shape, this is a



workout and I can't imagine the fitness required to summit. It looks nearly vertical from the rope and rebar steps at the beginning of the Hörnligrat, which is the main route used to reach the summit.

To begin our ascent, we rode the gondola up to Schwarzsee, although it is possible to hike up from the town but that would require an overnight stay in the hut. At this altitude, the hike is strenuous, but not exceptionally grueling. I felt some effort in breathing but my legs seemed fine until the way down. There is some travel over paths strewn with small and large rocks, which requires attention but no special skills. I never felt in fear of falling off although the footing can be a bit tricky.

The threat of rain was always in the backs of our minds and a heavy downpour could turn the hike into a terrifying experience. The one area that gave us pause was a single rebar step with a long reach to the rope against the wall. Holding a stick made it difficult to get up and get a good grip on the rope. We worried about that step the entire way down and just as we got a glimpse of it, a climber was coming up from below. He took a big step on the rebar, ignored the rope and just kept going like it was nothing. Chris turned to me and remarked, "Well, he's going all the way to the top."

Scenery and views

The views are fantastic! The main attraction is the Matterhorn (4'478m) itself. At times, we had views of a stunning banner cloud hanging off the side of the mountain like a flag. The views up the east face look nearly vertical and cannot be seen from anywhere else. Other sights are the various mountains of the imposing Pennine Alps: Monte Rosa (4'634m), Breithorn (4'164m), Weisshorn (4'505m), Dent Blanche (4'357m), Ober Gabelhorn (4'063m), Zinalrothorn (4'221m) and others.

Food on the mountain

Hörnlihütte - The Hörnlihütte is the place climbers stay the night before climbing to the summit of the Matterhorn. Despite the fact that we didn't eat at the Hörnlihütte (opting to spend the time walking above the hut to get to the wall at the beginning of the Hörnligrat climb), it has a reputation for good food. The delicious smells of the pasta dishes and look of the cakes as we walked through makes me believe that to be the case.

Travel

How to get there: By SBB train, Zug - Bern -Visp - Zermatt. Just under 4 hours.

Gondola to Schwarzsee: From the outskirts of the main part of town, the Matterhorn valley gondola takes you up to Schwarzee station leading to the Hörnliweg.

Hörnliweg: There is really only one way up to the Hörnlihütte, consisting of three sections of ascent. Conditions: scree and large rocks and some metal grates, rebar steps and ropes. Rating: Difficult, starts out as Red/White/Red with the top part increasing to Blue/White/Blue. Duration: It took us about 2 ½ hours to ascend and 2 hours to descend. Vertical meter difference: 673m (Schwarzsee 2'583m - Hörnlihütte 3'260m).



Additional information:

SAC Hörnlihütte: hoernlihuette.ch

Zermatt Tourism: zermatt.ch/en/Media/Attractions/Zermatt-tourist-office &

myswitzerland.com/en-us/zermatt.html

Matterhorn Paradise: matterhornparadise.ch/en

Weather at the Hörnlihütte: srf.ch/meteo/lokalprognose?id=417277392

Hotels: Booking.com Rega: rega.ch

This Month: Don't miss our third IMCZ SKI SHOW, Thursday, October 25th, free admission for family & friends. Think snow!!!





BUSINESS/FINANCE IMCZ

WAGNER & ASSOCIATES Investment Consulting

INVESTMENT COMMENTARY SEPTEMBER 2018

August 30, 2018

ECONOMY

While the USA still has good economic growth, Europe is giving cause for concern. 2nd quarter GDP in the Euro-region only increased by 0.3% quarter over quarter and some leading indicators have also worsened. Lack of clarity over Brexit and the spending plans of Italy will continue to fuel uncertainty. The only thing the two economies have in common is a rising inflation rate which was over the ECB's target of 2% in July.

BOND MARKETS

At the yearly Jackson Hole symposium, Fed Chairman Jerome Powell announced that the US central bank intends to raise its key interest rate by another 25 basis points to 2 -2.25% at the end of September. Investors should not concern themselves with President Trump's tweets, the Federal Reserve will act as it sees fit. ECB Chairman Mario Draghi is conspicuously quiet, i.e. he sees no need to change anything at the moment.

EQUITY MARKETS

Investors are too sanguine about the prospects for stock markets. In view of expensive valuations which still have to be confirmed by meeting hard to obtain earnings expectations, political tensions and trade differences a cautionary stance is warranted. The market leadership provided by technology stocks is faltering and a replacement is not in sight. Individual stocks of companies that have good management, a sought after product or service and are conservatively financed offer better price potential than index products.

CURRENCIES

Instead of concentrating on the currency fluctuations among the "hard" currencies USD, JPY CHF and EUR, the investor should maybe be more concerned about the possible effects of the "weak" currencies. The Argentine Peso and Venezuelan Bolivar, the Turkish Lira and the Chinese Renminbi are only the most prominent examples for profound problems of the corresponding countries. Domino effects due to foreign debt or trade relationships are not to be ignored.

FOOD FOR THOUGHT

"Cobbler, stick to your last". Recent news of more and more intended stock buy-backs has caused at least temporary price increases. The investor should be aware of the fact that these only have quantitative consequences and that changes fundamentally. management of a company, board of directors and executive board, should concentrate on their product, its production and marketing as well as service/maintenance. If they do this right, the stock price will appreciate without additional "assistance".

Christian Wagner.

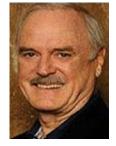
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At it again

"The English are feeling the pinch in relation to recent events in Syria and have therefore raised their security level from "Miffed" to "Peeved." Soon, though, security levels may be raised yet again to "Irritated" or even "A Bit Cross." The English have not been "A Bit Cross" since the blitz in 1940 when tea supplies nearly ran out. Terrorists have been re-categorized from "Tiresome" to "A Bloody Nuisance." The last



time the British issued a "Bloody Nuisance" warning level was in 1588, when threatened by the Spanish Armada.

The Scots have raised their threat level from "Pissed Off" to "Let's get the Bastards." They don't have any other levels. This is the reason they have been used on the front line of the British army for the last 300 years.

The French government announced yesterday that it has raised its terror alert level from "Run" to "Hide." The only two higher levels in France are "Collaborate" and "Surrender." The rise was precipitated by a recent fire that destroyed France 's white flag factory, effectively paralyzing the country's military capability.

Italy has increased the alert level from "Shout Loudly and Excitedly" to "Elaborate Military Posturing." Two more levels remain: "Ineffective Combat Operations" and "Change Sides."

The Germans have increased their alert state from "Disdainful Arrogance" to "Dress in Uniform and Sing Marching Songs.' They also have two higher levels: "Invade a Neighbour" and "Lose."

Belgians, on the other hand, are all on holiday as usual; the only threat they are worried about is NATO pulling out of Brussels.

The Spanish are all excited to see their new submarines ready to deploy. These beautifully designed subs have glass bottoms so the new Spanish navy can get a really good look at the old Spanish navy.

Australia, meanwhile, has raised its security level from "No worries" to "She'll be alright, Mate." Two more escalation levels remain: "Crikey! I think we'll need to cancel the barbie this weekend!" and "The barbie is cancelled." So far no situation has ever warranted use of the last final escalation level.

A final thought: Greece is collapsing, the Iranians are getting aggressive, and Rome is in disarray. Welcome back to 430 BC".

-- John Cleese - British writer, actor and tall person.

On Marriage

- "By all means do get married! If you get a good wife, you will be happy. If you get a bad wife, you will become a philosopher". Socrates
- The best way to remember your wife's birthday is to forget it once.
- A good wife always forgives her husband when she is in the wrong.
- A married man should forget his mistakes. There is no reason for two people to remember them.
- To keep your marriage alive, remember that when your are wrong, admit it ,and when you are right, just shut up.

Beating a Lawyer?

A Chinese doctor just moved into town but had difficulty finding patients, so he put up a sign outside which read, "Get treatment for \$20; if not cured, get back \$100."

A lawyer saw it and thought he could make a quick \$100. He goes into the clinic.

Lawyer: "Doctor I have lost my sense of taste."

Doctor: "Nurse, bring medicine from lot number 25 and put 3 drops in the patient's mouth."

Lawyer: "Ugh but this is kerosene!"

Doctor: "Congrats, your sense of taste is restored. Please give me \$20."

Annoyed, the lawyer goes back after a few days to recover his money.

Lawyer: "Doctor I have lost my memory. I can't remember anything."

Doctor: "Nurse, bring medicine from lot number 25 and put 3 drops in the patient's mouth."

Lawyer (annoyed): "But this is kerosene. You gave it to me last time to restore my sense of taste."

Doctor: "Congrats. You got your memory back. Please give me \$20."

The fuming lawyer pays then came back a week later determined to get back \$100.

Lawyer: "My eyesight has become very weak, I can hardly see." The doctor examines the lawyer's eyes carefully, and after a while says: "Sorry but I do not have a medicine to cure your eyesight. Please take this \$100 note.'

Lawyer, staring at the note: But this is a \$20 not a \$100 note?

Doctor: "Congrats, your eyesight has been restored. Please give me \$20."

Ladies Night Out

The other night I was invited for a night out with the girls. I told my husband, that I would be back by midnight, "I promise". Well the hours passed by and the drinks went down way too easily. Around 3 a.m. I finally headed home. Just as I got in the door, the cuckoo clock in the hall started up and cuckooed three times. Quickly I cuckooed nine more times, hoping that if my husband were awake he would think it is midnight.

Next morning my husband asked me what time I got in last night. I told him around midnight. He did not seem to be disturbed at all. Just when I thought I got away with it, he said, "we need a new cuckoo clock." When I asked him why, he said, "Well last night our clock cuckooed three times. then it cuckooed 4 more times, cleared its throat and cuckooed 3 more times. It then giggled and cuckooed twice more.



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Members' Marketplace

Are you **selling** your yacht (harboured in Piraeus)? Your Aston-Martin old-timer with the roll top roof? A gorgeous view of the Bay of Biscay, with a little bit of house attached? Or are you cashing in the half of your stamp collection that is finally worth something? Perhaps you're **looking** for all of these things?

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The Members' Marketplace is reserved for unformatted advertisements of 150 characters (approx. 3 lines) of text. These are free of charge to IMCZ members Advertisements must be submitted as illustrated below. Longer advertisements cost CHF 30.-

Example: FOR SALE: gorgeous view of Bay of Biscay with stunning sunsets and high waves. Wee house (12 rooms), dock and yacht included. Call Bill at 041 123 45 67.

Do you like writing? I wrote a book in German about a Swiss expat and am now looking for someone to translate it into English. The text is easy. Call Christian on 041 710 40 12.

IMCZNEWS Advertising Rates

The IMCZ newsletter is delivered bi-monthly to about 200 members representing 20 nationalities. IMCZ members have personal or professional interests in both the international community and in the canton of Zug.

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Advertising Rates:

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- 1/3 Page, vertical (6.3 x 27.7 cm), Fr. 85.-
- 1/3 Page, horizontal (19 x 9.2 cm), Fr. 85.-
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- Business Card (9.2 x 6.45 cm) Fr. 45.-

Extra costs may be incurred for typesetting, special formatting, etc. IMCZ Members receive a 20% discount on advertisement costs.

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