# UKMA news

The newsletter of the UK Metric Association
Campaigning for a **single** *rational* system of measurement

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## Editorial, by John Austin

For such a non-political organisation, politics seems to play an unexpected impact on UKMA interests. A few months ago, there was the government survey of measurement units and the high degree of bias in the survey wording. This quarter we are concerned about the Retained EU Law Bill that has been placed before Parliament. Its stated purpose is to respond to the Brexit wishes of the people by eliminating all EU laws that are not needed. Unfortunately, it contains a "sunset" clause whereby all laws which have not been incorporated into British law by the end of December 2023 will automatically be rescinded. Even the most ardent of Brexit supporters would blanch at this, as there may be thousands of useful laws that would be lost. Some of these relate to measurements and the metric system, making it of concern to the UKMA. Further details follow after this editorial. Also included in this edition of the Newsletter are several articles reproduced from Metric Views which particularly caught my eye. The first expands on criticism of the government unit survey. Local MPs seem completely deaf and blind to the problems raised.

Of special interest this month is that the International Bureau for Weights and Measures (BIPM) has introduced new prefixes for SI units. This was also first published in Metric Views and in the following article I provide further commentary, expanding into the commonly used notation for computer bits and bytes. As usual, we round out the Newsletter with more howlers from UK signs and packaging. Under Association News, our Chair Person has provided a message for the year. This is a new idea for the Newsletter, and I hope it will be repeated in future.

Finally, the Editor and UKMA committee would like to wish all our readers a merry Christmas and a happy new year! Don't forget: only metric-sized Christmas trees should be used!

*Freepik Merry Christmas colour elements by Nadiia Poliashenko*

## Coalition Urges the Government to Scrap EU bill timetable, *article prepared by Editor based on contributions from Ronnie Cohen and the UKMA committee*

The Retained EU Law Bill, which was proposed by the former business secretary Mr. Rees-Mogg, would mean the scrapping and redrafting of thousands of laws covering all aspects of civil society. The bill currently has a deadline of 31 December 2023, so that those laws which have not been redrafted will be scrapped with possibly unintended impacts to business and society. The concerns have led the Charterd Trading Standards Institute (CTSI) and a coalition of charities to launch the "Safeguarding our Standards" campaign to persuade the government to scrap the bill's current deadline of 31 December 2023.

Further details may be read in the press release here: https://www.tradingstandards.uk/news-policy/news-room/2022/coalition-urges-government-to-scrap-eu-bill-timetable/
Last month, CTSI invited UKMA to join the Safeguarding our Standards coalition and UKMA agreed to join. In response to CTSI's invitation letter, UKMA wrote back saying:
"Consumer protection, through the use of a single system of measurement units for all official purposes is very much one of our campaign's goals. The threat that the REUL Bill poses to this goal concerns us greatly. We therefore would like to join your coalition."

On 25 November 2022, CTSI wrote to PM Rishi Sunak on behalf of the Coalition. You can find the letter online at: Safeguarding our Standards coalition letter (tradingstandards.uk) You will see that the UKMA logo is included on the bottom of the letter. Several of the UKMA committee also wrote

to their local MPs who happened to be from the Conservative party. The responses were very similar suggesting that a response has been prepared centrally and distributed to the different MPs. The responses obtained suggested that there was little intention to pay attention to the concerns expressed by constituents.

## Government Imperial Units Consultation bedevilled by inaccuracy, bias, bodges and computer blunders, *Article by Martin Vlietstra, reproduced from Metric Views.*

The Government consultation into the choice of units of measure in the retail sector [1] has been bedevilled by inaccuracies, bias, bodges and probably computer blunders. The Foreword of the document (unsigned) is not only riddled with inaccuracies and half-truths, but the explanation of the law relating to units of measure in the retail trade bypasses the fundamental principles behind the display of prices.

Evidence obtained by the UKMA indicates that the staff of Department for Business, Energy and Industry Strategy (BEIS) bodged and attempted to skew the consultation questions in order to produce a particular result. As a result, the PDF version of the questions and the web version of the questions were out of synch with each other. This was only noticed by the BEIS after at least one UKMA member had answered the questions. When the two versions were re-aligned with each other, the BEIS appeared to have overlooked a subtle computer process resulting in the UKMA member's responses (and possibly other responses) being displayed as "Not answered". This gave the appearance of the BEIS having not only changed the questions, but having also tampered with the respondent's answers.

In response to correspondence by the member concerned via his MP and a Freedom of Information request from the UKMA, the BEIS gave assurances that the original answers would be taken into account when the analysis was done. [2, 3] Given the nature of the subtle computer process, the author of this document, a software engineer of 40 years standing, has doubts that the BEIS will be able to honour their assurances.

### Unwittingly tampering with evidence

Probably the biggest blunder made by the BEIS was to take a document that was already biased (see later) and to try and introduce more bias into it. Question 3a asked respondents whether they preferred shopping in establishments that displayed "only imperial units", that displayed "both imperial and metric units" or that "did not display imperial units" (i.e., only metric units). It appears that somebody in the BEIS then decided to remove the third option. This option was removed from the PDF version of the questionnaire, but only half removed from the web-based questionnaire. The result was two questionnaires that were out of synch with each other. Having two questionnaires that are out of synch with each other really calls the whole consultation into question.

A few days before the BEIS withdrew the third option to Question 3a, a UKMA member answered the web-based questionnaire and chose the third option. He twice requested PDF copies of his responses, once before the change and once after the change. On the second copy, he found that his answer had been changed to "not answered". He wrote to the BEIS via his MP to ask what had happened. The BEIS denied having changed his answer and assured the member that his original answer would be taken into account when the analysis was done. It was also noticed that the answer to Question 1c had been changed. It should be noted that Question 1c was also tampered with, but for the sake of brevity this report will not examine that change. The following images highlight the differences between the original version that was submitted to BEIS and a second visit by the author eleven days later:

1b Are there any specific areas that you think should be excluded from a choice in units of measurement, and why?

Yes

Please explain why:

ALL areas should be excluded from a choice of units by the seller. For the reasons, see response 1a.

1c If an item is sold in imperial measures, should there be a requirement for a metric equivalent alongside it?

An item should not be sold in imperial measures

Please explain further if you wish:

The use of metric units is now well established in the UK to the extent that most of those who were trained in the manipulation (addition, subtraction etc) of compound imperial units (such as pounds and ounces, feet and inches etc) at school have now retired. For example, a check on the ages of the members of the British Cabinet shows that only one cabinet member (Nadine Dorries MP, born 1957) is of an age to have been taught such skills at school. Although pupils at school are currently taught how to convert pounds into kilograms and vice-versa, they are not taught how to convert pounds into ounces, nor are they even taught how many ounces there are in a pound. Similarly with pints, gallons and litres, also with yards, feet, inches and metres) As an example, How many people can arrange the following in ascending order:

The above image shows the actual form submitted, while the image below shows the answer interpreted for question 1c.

1b Are there any specific areas that you think should be excluded from a choice in units of measurement, and why?

Yes

Please explain why:

ALL areas should be excluded from a choice of units by the seller. For the reasons, see response 1a.

1c If an item is sold in imperial measures, should there be a requirement for a metric equivalent alongside it?

Not Answered

Please explain further if you wish:

The use of metric units is now well established in the UK to the extent that most of those who were trained in the manipulation (addition, subtraction etc) of compound imperial units (such as pounds and ounces, feet and inches etc) at school have now retired. For example, a check on the ages of the members of the British Cabinet shows that only one cabinet member (Nadine Dorries MP, born 1957) is of an age to have been taught such skills at school. Although pupils at school are currently taught how to convert pounds into kilograms and vice-versa, they are not taught how to convert pounds into ounces, nor are they even taught how many ounces there are in a pound. Similarly with pints, gallons and litres, also with yards, feet, inches and metres) As an example, How many people can arrange the following in ascending order:

Likewise, the form below shows the results for question 3a

Questions for consumers

3a If you had a choice, would you want to purchase items (i) in imperial units? (ii) in imperial units alongside a metric equivalent?

Not in imperial units

Please explain further if you wish:

I see great value in using consistent units. I have a scientific background and will often check something that the average shopper does not do. For example, I almost always check the alcohol content of any alcoholic drink that I might consume. If I have a 500 ml bottle of 4.8% beer, I know that I will be consuming 2.4 units (0.5 of 4.8). If however I am drinking a pint of 4.8% draught beer, calculating the alcohol content is not so simple (0.568 of 4.8).

I also often compare the price of loose products with the price of pre-packaged counterparts. Often, when I will see loose peppers alongside packs of three peppers, I will take a pack of peppers to the self-service weighing point to check its weight and then make a decision as to whether I should buy loose or pre-packed peppers.

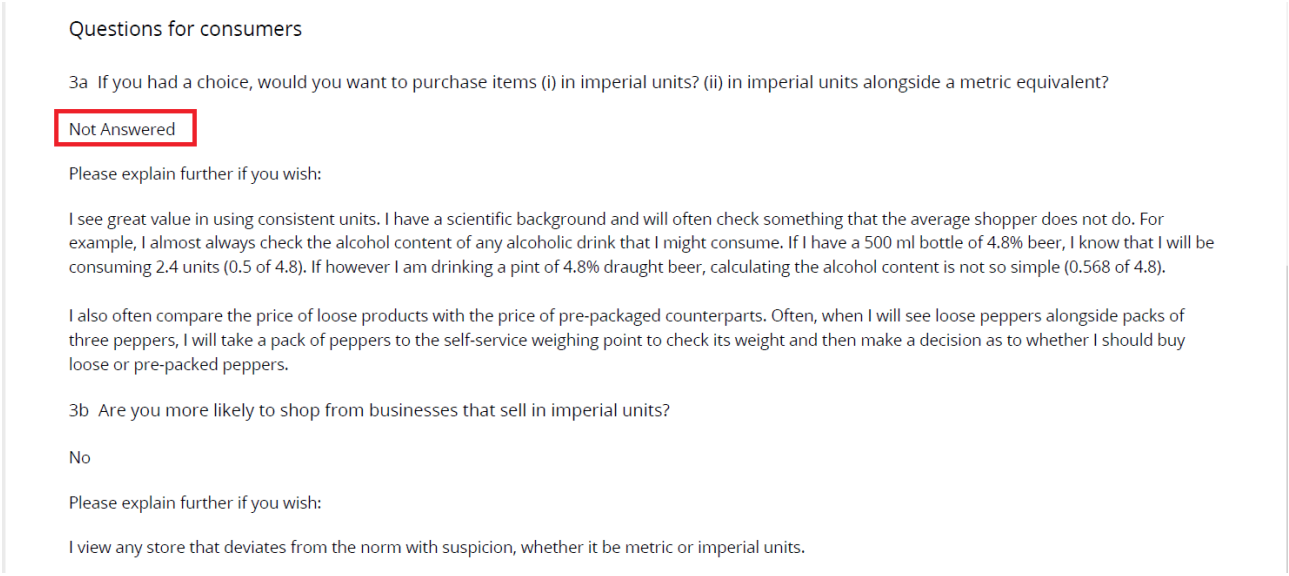
3b Are you more likely to shop from businesses that sell in imperial units?

No

Please explain further if you wish:

I view any store that deviates from the norm with suspicion, whether it be metric or imperial units.

The answer interpreted was as follows.



Questions for consumers

3a If you had a choice, would you want to purchase items (i) in imperial units? (ii) in imperial units alongside a metric equivalent?

Not Answered

Please explain further if you wish:

I see great value in using consistent units. I have a scientific background and will often check something that the average shopper does not do. For example, I almost always check the alcohol content of any alcoholic drink that I might consume. If I have a 500 ml bottle of 4.8% beer, I know that I will be consuming 2.4 units (0.5 of 4.8). If however I am drinking a pint of 4.8% draught beer, calculating the alcohol content is not so simple (0.568 of 4.8).

I also often compare the price of loose products with the price of pre-packaged counterparts. Often, when I will see loose peppers alongside packs of three peppers, I will take a pack of peppers to the self-service weighing point to check its weight and then make a decision as to whether I should buy loose or pre-packed peppers.

3b Are you more likely to shop from businesses that sell in imperial units?

No

Please explain further if you wish:

I view any store that deviates from the norm with suspicion, whether it be metric or imperial units.

The author postulated that the BEIS used a computer software package such as SurveyMonkey® to administer the consultation and that the apparent change in response was a knock-on effect from dropping the third option in Question 3a. This is the sort of behaviour that he would expect if the software package was built around a relational database which was interrogated using SQL queries. The user interface of the computer package would hide both the database and the means by which it was interrogated.

Although the spokesperson for the BEIS gave assurances that the respondent's original responses would be taken into account, the author believes that if the software incorrectly interpreted a single respondent's answers, then it would repeat the same incorrect interpretation when all the respondents' answers are grouped together. He therefore believes that the BEIS spokesperson did not really understand how to go about solving the problem and, as a result, their assurances are nothing more than unattainable platitudes.

## Other shortcomings

The BEIS document lacked integrity from the start. The opening paragraph of the Foreword stated that the transition to the metric units took place in the late 1990's, which is simply not true – the bulk of the metrication process took place in the early 1970's. The document went on to say that we buy our beer in pints and weigh our babies in ounces. The authors of the document had clearly never bought any beer in a supermarket, nor were they aware that even though babies' weights are often quoted in pounds and ounces (not just ounces), the official records are in metric units. For the sake of brevity, other faux pas will not be catalogued.

The section of the document describing the law and the questionnaire failed to mention the term "supplementary units" or to describe their purpose – namely that the primary unit used in pricing goods is the unit of measurement that is entered into the weighing device and is also the unit of measurement that appears on the receipt. The impact of this can best be described by a UKMA member who once noticed that one product in Tesco was priced at £1/kg (45p/lb) while at the other end of the display rack, a different product was priced at 99p/kg (45p/lb). Did the two products have the same price or not?

## Conclusions

The primary conclusion is that this consultation was a farce, biased from the beginning and designed to buy a few "Red Wall" votes by placating a group of market traders who, twenty years ago, had been convicted of using unauthorised weighing devices. This bias was made worse when somebody in the BEIS tried to skew one of the less-biased questions and the BEIS staff made a mess of the operation. In such circumstances any decent polling organisation would have ditched the whole consultation.

If the Business Secretary is minded to publish the results of the consultation, the UKMA expects to see two sets of analysis to the response – one based on the version of the questionnaire which listed three options for Question 3a and another based on the version which only listed two options for that question. The US Department of Defense document "Designing an Effective Survey" counsels against such "quick and dirty surveys". [4] On the other hand, given that the consultation period took place before he was appointed, he can, without loss of face, dismiss the whole consultation as having been "compromised by technical problems".

The Business Secretary would do well to recall that in 1215 the authors of the Magna Carta realised the wisdom in having one system of units of measurement for "the whole realm", something that the French eschewed. The lack of a single system of units in France was one of many grievances that led to the French Revolution and, perhaps, perversely, to the establishment of the metric system. [5]

**References:**

1."Choice on Units of Measurement: Markings and Sales" (June 2022) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1081018/choice-on-units-of-measurement-markings-and-sales-consultation.pdf), Office for Product Safety and Standards.
2. Freedom of Information response to Mr Ronnie Cohen, dated 20 October 2022, BEIS reference: FOI2022/22562.
3. BEIS response dated 19 October to a question by Mr Martin Vlietstra, submitted to the Department on his behalf by his MP, the Rt Hon Ranil Jayawardena MP. BEIS reference: TOB2022/22821.
4. "Designing an Effective Survey" page 11, (September 2005) Mark Kasunic, Carnegie Mellon Software Engineering Institute. (https://resources.sei.cmu.edu/asset_files/Handbook/2005_002_001_14435.pdf), (Funded by the US Department of Defense).
5. Adler – "The Measure of All Things" (2002), Published by Little and Brown, ISBN: 978-0316859899.

## The First New SI Prefixes for Over 30 Years, *Article by Ronnie Cohen, first published in Metric Views*

The International Bureau of Weights and Measures (BIPM) has formally approved the use of four new SI prefixes to meet the growing needs of science, computing and the increasing amount of online data and to prevent the adoption of unofficial prefix names. The approval of the new prefixes was one of the resolutions of the 27th General Conference on Weights and Measures, which took place on 15-18 November 2022.

The last time that new SI prefixes were added to the metric system was in 1991 when the BIPM added the prefixes indicated below.

| Prefix | Quantity | Symbol |
|---|---|---|
| zetta | $10^{21}$ | Z |
| yotta | $10^{24}$ | Y |
| zepto | $10^{-21}$ | z |
| yocto | $10^{-24}$ | y |

The reasons given by the BIPM for expanding the range of new SI prefixes are:

•to provide new SI prefixes for scientific communities that depend on measurements that are not covered by the current range,
•to meet the needs of data science in the near future to express quantities of digital information using orders of magnitude in excess of $10^{24}$,
•and to prevent unofficial prefix names being *de facto* adopted in other communities.

| Prefix | Quantity | Symbol |
|---|---|---|
| ronna | $10^{27}$ | R |
| quetta | $10^{30}$ | Q |
| ronto | $10^{-27}$ | r |
| quecto | $10^{-30}$ | q |

Richard Brown, the head of metrology at the UK's National Physical Laboratory, came up with the idea for SI prefixes to respond to the unofficial use of prefixes for data storage such as brontobytes and hellabytes. These prefixes did not fit into the SI naming scheme and they started with letters that were already in use for existing prefixes or for other units.

The new prefixes that were approved are indicated on the left. These prefix names were chosen because they start with letters that have not been used for existing prefixes or units.

They use the convention that prefix names for very large numbers end with A and use capital letters for their symbols and prefix names for very small numbers end with O and use small letters for their symbols.

The ronna and ronto prefixes are derived from a combination of "r" plus the Greek *ennea* for nine plus the common SI suffix of "to" for large numbers or "ta" for small numbers. The number nine relates to the fact that ronna and ronto are $1000^{9}$ and $1000^{-9}$ respectively.

The quetta and quecto prefixes are loosely derived from a combination of "q" plus the Latin *decem* for ten plus the common SI suffix of "to" for large numbers or "ta" for small numbers. Richard Brown had proposed quecca as the prefix for $10^{30}$ but this was changed to quetta. The number ten relates to the fact that quetta and quecto are $1000^{10}$ and $1000^{-10}$ respectively.

The addition of new prefixes improves the metric system's ability to measure extremes at both ends of the scale and meet the world's needs for higher numbers. The latest additions should future proof the metric system for the next 20-30 years.

**Further reading:**

•https://www.bipm.org/documents/20126/77765681/Resolutions-2022.pdf/281f3160-fc56-3e63-dbf7-77b76500990f
•https://phys.org/news/2022-11-earth-ronnagrams-metric-prefixes-voted.html
•https://www.newscientist.com/article/2347426-ronnametres-and-quettagrams-have-joined-the-ranks-of-si-units/
•https://physicsworld.com/a/new-si-prefixes-go-large-and-small-using-physics-to-avoid-sauce-splatter/
•https://www.theguardian.com/science/2022/nov/18/earth-six-ronnagrams-new-prefixes-big-and-small
•https://www.rte.ie/news/newslens/2022/1118/1336933-new-metric-prefixes/
•https://www.ibtimes.com/earth-now-weighs-six-ronnagrams-new-metric-prefixes-voted-3637796

Information about new SI prefixes:
•https://en.wiktionary.org/wiki/quetta-
•https://en.wiktionary.org/wiki/quecto-
•https://en.wiktionary.org/wiki/ronna-
•https://en.wiktionary.org/wiki/ronto-

## A personal (controversial) view of the new prefixes and more on bytes, *by John Austin*

In the ensuing discussion in the Metric Views article online, most of the comments referred to the computer aspects, which ironically are not covered by the SI as noted by correspondent "m". However, if it were left to me, I would probably consider scrapping all of the prefixes above exa ($10^{18}$) and smaller than atto ($10^{-18}$), rather than introduce new ones. The point is that the SI is developed around units that the average person might come across and so would not come across these prefixes. Very small or very large units are only typically encountered in specialist science and technology fields which in my view can be better handled with explicit powers of 10. One of the difficulties in having so many prefixes (more than the number of units themselves) is that it can be baffling to the average person. This makes our task more difficult in weaning people off Imperial units and in persuading people to use the correct symbols.

The new prefixes are supposed to be helpful for scientists but as a professional scientist in Atmospheric Chemistry, I never used any of them, although I might well have done. I remember going to a lecture by our computer manager in which he was talking about petabyte computing for supercomputers. That's not very long ago, so there won't be many factors of ten multiplied yet! That sent many of us rushing to the dictionary to find out what peta meant. What is the possible source of error, I wonder, if people misunderstand or misuse rarely used prefixes?

It's not as if I didn't use large numbers in the science I was doing. A classical number is Loschmidt's number, the number of molecules in 1 $cm^3$ of air at Standard Temperature and Pressure, $2.693 \times 10^{19}$ . By the time you mutliply by the surface area of the Earth, you find that there are a lot of molecules in the atmosphere! There are a lot of $CO_2$ molecules as well, if Climate Change is your field. From Loschmidt's number, we worked with reaction rates all of which were expressed in index notation of the base units not picoseconds or anything weird. Sadly, we always seemed to work in cgs units. Early in my career I (and others) made an effort to convert over to SI which was what I learnt, but the scientific community is sometimes stubborn and none of it acquired any traction. So atmospheric chemistry is still in cgs units and you have to work very carefully when putting your chemistry into climate models which would be in SI.

I would be surprised if these prefixes had a significant impact on other areas of science. Astronomers are the kings and queens of big numbers, but I don't think they will be giving up their light years and parsecs. Sub-atomic physics is of course the realm of small numbers and I would guess that the atto prefix is fine for them.

The situation that I would prefer to see is a more wholesale adoption of index notation. I recently discovered that index notation is covered in Key Stage 3 in mathematics, so anybody over the age of 14 should be well versed in them. Alas, scientific journalists seem to assume that the reader is not. So rather than use index notation in articles, they often use long hand. For example, "the mass of the sun is 2000000000000000000000000000000 kg!" The exclamation mark is important as the writer is trying to impress but it just leaves me annoyed as I have to go and count all the zeroes to find out what the number is. If everyone was more exposed to the concise expression ($2 \times 10^{30}$ in this example) people would presumably be more comfortable in using the base units without using poorly-known prefixes.

Will large prefixes be justified in computing? Perhaps eventually but that may be decades away. At present computing is not always as clear as it could be. In a binary system it is easier to work with powers of 2, and coincidentally $2^{10}$ = 1024 is very nearly 1000 = $10^3$. So the notation takes advantage of that: 1 KB (rather than kB) = 1024 Bytes, 1 MB = $1024^2$ Bytes etc. Note that at each step along the way the actual number of bytes is increasing at 2.4% more than the power of 10. One TB for example is approximately 1.0995 x $10^{12}$ Bytes, which differs from $10^{12}$ by 10%.This can become quite important and will only get larger in the future as the powers of 2 increase. This difference is sometimes indicated by a different notation so that 1024 Bytes is 1 kibibyte, $2^{20}$ bytes is 1 mebibyte, $2^{30}$ bytes is 1 gebibyte etc. (https://en.wikipedia.org/wiki/Template_talk:Bit_and_byte_prefixes). These should be written KiB, MiB, GiB etc, but unfortunately these symbols are not commonly used and there could be some confusion. At the moment disk manufacturers have another problem, and I often feel short-changed when I buy external disks for my computer, here are some examples.

| Disk name | Nominal capacity | Actual capacity | GiB | GB | Fraction GiB/nominal |
|---|---|---|---|---|---|
| Conference 2014 | 1G | 1,006,354,432 | 0.96 | 1.0 | 0.96 |
| Lexar | 32G | 31,252,430,848 | 29.1 | 31.3 | 0.91 |
| SanDisk | 64G | 62,078,910,464 | 57.8 | 62.1 | 0.90 |
| SanDisk SD | 128G | 125,035,347,968 | 115 | 125.0 | 0.91 |
| SanDisk | 256G | 250,389,102,592 | 233 | 250.0 | 0.91 |
| Seagate HD | 2T | 2,000,263,573,504 | 1810 | 2000.0 | 0.91 |

The above disks are mostly thumb drives or device storage while the last item is an external hard drive. Most of the storage capacities come out about 9 or 10% less than expected.

Overall, the new prefixes are good publicity for the SI, even if they are not much use. In the UK and USA people will perhaps just think that the metric system is too complicated to "learn". In Britain, we certainly seem incapable of using the correct symbols for the current set of units (see "small items", below) so I think more prefixes are in danger of confusing people further.

**Small Items**

**The Father of the Metric System in South Africa Has Died**

We are saddened to report that the father of the metric system in South Africa died on 1 December 2022. Prof. Heinz Prekel (left) was instrumental in transforming South Africa from the Imperial system to metric. He was 89. His death occurred due to complications associated with a fall. His obituary can be read here

https://mybroadband.co.za/news/science/472531-father-of-the-metric-system-in-south-africa-dies.html?fbclid=IwAR20wLUxDoYybvvqtg_S02IdlniwSjwJgByr7mbCfli3OL5gfnoe5RnMkaY

**Unit horrors on signs and packages**

The horrors never seem to stop. On the following page are some images, courtesy of Ronnie Cohen.

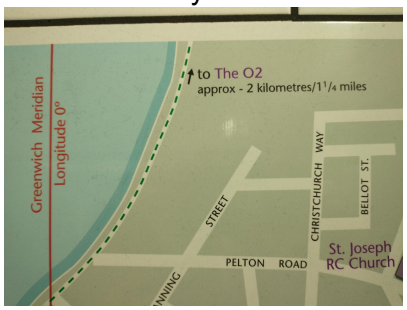
You will see that Tesco "luxury snow tree" is measured in decimalised feet. Of course they can be easily confused with feet and inches (is it 6ft 5 in or 6ft 6 in?). The accompanying metric measurement indicates the latter. Use of decimalised feet, though, is an implicit recognition that the unit measure is imappropriate. Tesco further adds insult to injury by using the wrong symbol for kilograms: paper thickness (g/m$^2$) is also

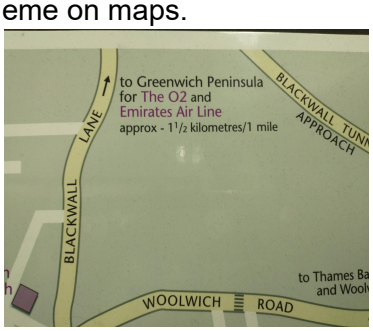


KGS instead of kg. GSM for quite common.


No doubt all our readers are familiar with this sort of sign by now. This is a new development near Brent Cross, and the company refers to it as modern living yet it persists in using acres for land area. It was a theme of Alan Young, aka Dr Metric (https://www.facebook.com/drmetric/) that few people know what an acre actually is, except in rather vague terms (Answer: the area of a field. What sized field? Dunno.), By contrast a hectare (100m x 100m) is a lot easier to visualise. Estate agents continue to use acres as people claim to understand them, but in reality it is the name that is familiar not the unit. Estate agents are probably afraid of dissuading people by using more visually understandable units. There is a clear need for legislation but the UK government seems currently to be wanting to go the other way.

This horror story is a common theme on maps.




These images (from Ronnie Cohen) are from a larger map outside the Cutty Sark DLR station. It is a common theme that when you admit of two measuring systems, maps become unnecessarily cluttered. In this example, of course, the yards and metres measures are almost indistinguishable, being less than 10% difference. Also, 1½ km would be better written as 1.5 km.



These restricted headroom signs can be seen in Highfield Ave., Golders Green NW11. They are for the same bridge. The first one is a worn-out imperial height sign - there is no expiry date for such signs. It is a reminder that they are still around, over six years after new ones ceased to be authorised though existing ones can stay indefinitely - until they are replaced. A few metres ahead, the sign on the bridge looks new and shows dual units.

## UKMA news – the newsletter of the UK Metric Association

### News from USMA , *John Austin*


The November/December 2022 USMA Newsletter, Metric Today reports on the social media week *Metric Week“ inclusive of 10 October (10/10 in case you missed the reference!). This was an opportunity to amplify the metrication message across the country with material posted online at www.metric.org.

USMA also anounced their annual awards with the most generous ($2500 prize) going to Hrishiki Rochoudhury. A freshman (first year) at the University of North Carolina, she is described as a student entrepreneur and promotes widely the use of the SI in student research and STEM education.

Nicole Iwuala is also a freshman (or freshperson I suppose) at Ovilla Texas and has used 3D printers to create orthotics having converted the measurement system to metric.

The first place, non-student award went to Edward Kinch of Port Monmouth New Jersey. Edward is a high school physics teacher and has been instrumental in establishing a metric curriculum in his course.

From my perspective as a former scientist I do find it surprising that American science and technology do not automatically use metric as they have done in the UK for fifty years or more.

The Newsletter had some commentary about the UK government measurement plans. Metric Today recognises that we are, ironically an exception, in the Commonwealth of Nations that we used to lead, in not fully adopting metric. According to their British source, only a small percentage of the population remember how to use imperial. That may be a slight exaggeration as in my view most people *think* they understand imperial units but when push comes to shove, like Lord Parkinson when interviewed for Sky Television, that understanding is somewhat vague and unhelpful.

Metric Today also notes in one of the passing remarks that converting back to imperial would have a significant effect on UK imports and exports as US companies use metric for exports to the UK anyway.

### Association News

### UKMA Officers

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| Chairman | Peter Burke |
| Secretary | Ronnie Cohen |

### UKMA Patrons

Lord Traverne, Prof. Jim Al-Khalili, Gavin Esler

In case you didn't notice, our patron Jim al-Khalili had cameo appearances on several episodes of BBC's Cunk on Earth, available on the i-player. I expect Jim had a problem keeping a straight face.....not everyone who was interviewed for the "documentary" could!

## UKMA news – the newsletter of the UK Metric Association

### End of the Year Message from the UKMA Chair Person

We in the UK Metric Association are an optimistic, enterprising bunch and take pride in looking to the future. Unlike some of our political friends, we know what “Global Britain“ means. We have not forgotten our mission and live in hope of a world in which there is no longer a need for dual units or massive amounts of educational time being spent on teaching obsolete weights and measures. We know that there will be setbacks along the way, and that is why we are able to treat what is happening at the moment as a bump in the road, not as a catastrophe. Looking back to January 1, 2022, many things have happened which have come as a surprise. However, this government’s attempts to roll the clock back were not one of them. We have a government which promised in its manifesto to show us the“opportunities of Brexit“, and what the events of the past year have shown us is just how sparse those are. Perhaps only noisier vacuum cleaners and imperial units. This year’s consultation exercise, of which you can read more in this newsletter, was a natural follow on from Ian Duncan Smith’s TIGRR report of last year. The fact that its authors felt the need to doctor the exercise speaks for itself. The UK Metric Association is not a party political organisation, we have members from every political quarter. However, what we share is a belief in joined up thinking and evidence-based decision-making. It is for this reason that we cannot do other than speak out against this travesty of a consultation, and against the motives behind it. We have been writing to the appropriate government departments and working with other interested bodies to ensure that the voice of common sense is heard. We have also been supporting a petition on weights and measures which has so far attracted several thousand signatures.

The other significant development, as you will have read in this newsletter, has been the Retained EU Law Bill. Unfortunately, weights and measures are just the tip of the iceberg: this bill has the potential to leave the UK with a massive legislative vacuum, and the government needs to understand that pushing it forward will cause it infinite trouble. Again we have been working with other interested parties and hope that you as members will support our cause.

While we end 2022 with many worries, we must continue to believe that a better world is possible and that we can help to make it happen.

The UK Metric Association is very definitely still alive and kicking, perhaps more than ever. We are pleased to say our numbers are growing. We have had the pleasure of welcoming two new patrons, Professor Jim Al-Khalili, and Gavin Esler.We had a successful AGM, featuring an excellent speaker, James Vincent. I feel very honoured to be in the position of chair, and I’m very happy to be contacted by any members who have questions or want to put forward ideas for our future direction. Finally, I would like to say, the word of thanks to our intrepid committee members, to our newsletter editor, John Austin, and to our press officer, Alex McDowell, as well as to the other members who have made the association what it is.

I wish you all the very best for Christmas and for 2023.

Peter Burke, 20 December 2022

### Recent articles posted on Metric Views

You may have missed the following articles posted on Metric Views, http://metricviews.uk, since the last newsletter:

"Minister failed to explain metrication failure". Posted on 15 December. 5 Comments.

"Public opinion opposes aims of REUL Bill". Posted on 11 December.

"UKMA is proud to join the Safeguarding our Standards coalition". Posted on 7 December. 3 Comments.

"How imperial units survey design flaws could have been fixed". Posted on 1 December. 8 Comments.

"First new SI prefixes for over 30 years". Posted on 20 November. 10 comments.

"No public impact assessments for Retained EU Law Bill". Posted on 15 November. 5 Comments.

"Government Imperial Units consultation bedevilled by inaccuracy, bias, bodges and computer blunders". Posted on 6 November. 9 Comments.

"Rees-Mogg's legislation time bomb". Posted on 25 October. 19 Comments.

Draft articles for Metric Views are welcome and should be e-mailed to: secretary@metric.org.uk

**UKMA websites**

UKMA began as an internet forum, and the internet is our principal vehicle for carrying our message to the public.
We now have:
The main UKMA web site, https://ukma.org.uk.
A factual web site, https://thinkmetric.uk.
A blog, https://metricviews.uk.
A Twitter page, https://twitter.com/UKMetric.
A YouTube channel, https://www.youtube.com/user/UKMetric.
and a Facebook page, https://www.Facebook.com/UKMetric.

These are available to all, not just members.

**Can you help?**

The Committee is looking for volunteers who may be able to help in the following areas:

- Responding to technical consultations by ISO and BSI.
- Preparing web-friendly versions of UKMA News for PCs, i-pads, i-phones and android devices such as tablets and mobile phones.
- Reviewing printed media for stories to link to our Twitter and Facebook pages.
- Assisting with the production of material for uploading to YouTube.

If you think you may be able to help, please contact secretary@metric.org.uk

**About this newsletter**

UKMA News is published by the UK Metric Association, the object of which is to promote the full adoption of the International System of Units (SI), commonly known as 'the metric system', as the legal and default system of weights and measures throughout society in the United Kingdom.
Your feedback and comments on UKMA News or on the UK's stalled metric upgrade are welcome. To submit, or if you no longer wish to receive UKMA News, please email secretary@metric.org.uk

 