PLEASE PUT YOUR MOBILE PHONES AND OTHER CONNECTED DEVICES IN "AIRPLANE MODE"

WiFi and Bluetooth disabled in the phone's main settings

THE "SILENCE" MODE DOES NOTHING TO STOP EMISSIONS!

There are people <u>intolerant to EM waves</u> (EHS) in the room...

THANK YOU FOR THEM!
And for us too ;-)

NOTE: This presentation (PDF) is available at www.electrosmogtech.ch/presentations

info-EMF
information on HF EM Fields
https://info-emf.ch

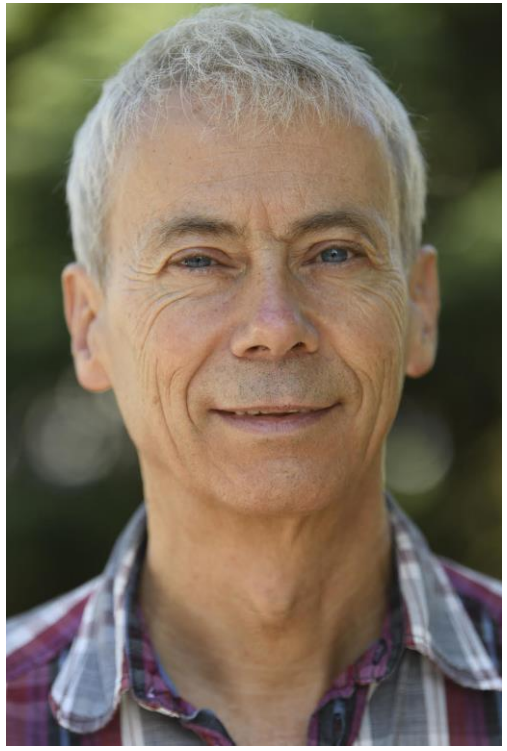
8 March 2024

CONFÉRENCE

Ondes sous haute tension
Tous surexposés?

Who am I ?

My name is **Olivier Bodenmann,** born in Vevey in 1957. I trained as an **electrical engineer at the EPFL** and have worked in industry for thirty years, including 15 in the wireless sector. I became interested in the **problem of electrosmog** in 1997, and have since developed simple and inexpensive methods of reducing it as far as possible. Living at a short distance from a mobile phone mast, I started by cleaning up my own home, with great success. My aim now is to make this knowledge and these techniques available to everyone, and to disseminate as much of this information as possible to as many people as possible, so that we can live as well as possible in today's 'connected' world. [www.electrosmogtech.ch]



- **The aim of this presentation is NOT** to militate "against" reasonable and reasoned progress, nor to be "against" mobile telephony or technology in general.
- **«Progress»,** however, should be about finding solutions to **existing problems**, not inventing solutions to artificially created problems.
- **Almost all of us use mobile telephony** (**95%!**), and possibly other wireless systems as well. **But we need to put safeguards in place to avoid the negative effects as far as possible**.
- **In the case of new wireless technologies (5G, etc), the balance is tipped in the wrong direction**, as the negative effects far outweigh the benefits so vaunted by the telecoms industry and the authorities.
- **Isn't it time** to say **STOP** to this **irrational madness of** "more and more"?
  Do we **really NEED** everything to go faster and faster? And for which purpose?

ELECTROMAGNETIC WAVES ? ... SOME COMMON REACTIONS

1. I don't care about EM waves, they don't do anything to me!

Réponse !

2. It's all nonsense, it's not scientifically proven!

Réponse !

3. Electrosensitivity is just psychosis, it's all in your head!

Réponse !

4. There's nothing we can do about it, it's going to get worse anyway, so better getting used to it...

Réponse !

5. I have protections and it doesn't affect me, so I'm not concerned!

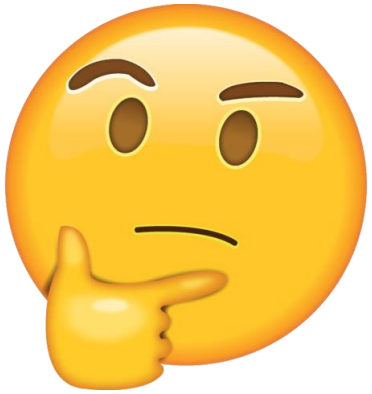
Réponse !

6. No worry, it's all managed by the standards in force, I trust them !

Réponse !

http://www.electrosmogtech/objections

ELECTROMAGNETIC WAVES... HOW TO DEAL WITH THEM?



A

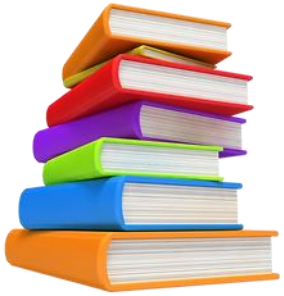
Find out more, become aware of the problem

B

Find solutions that work for me and for others too

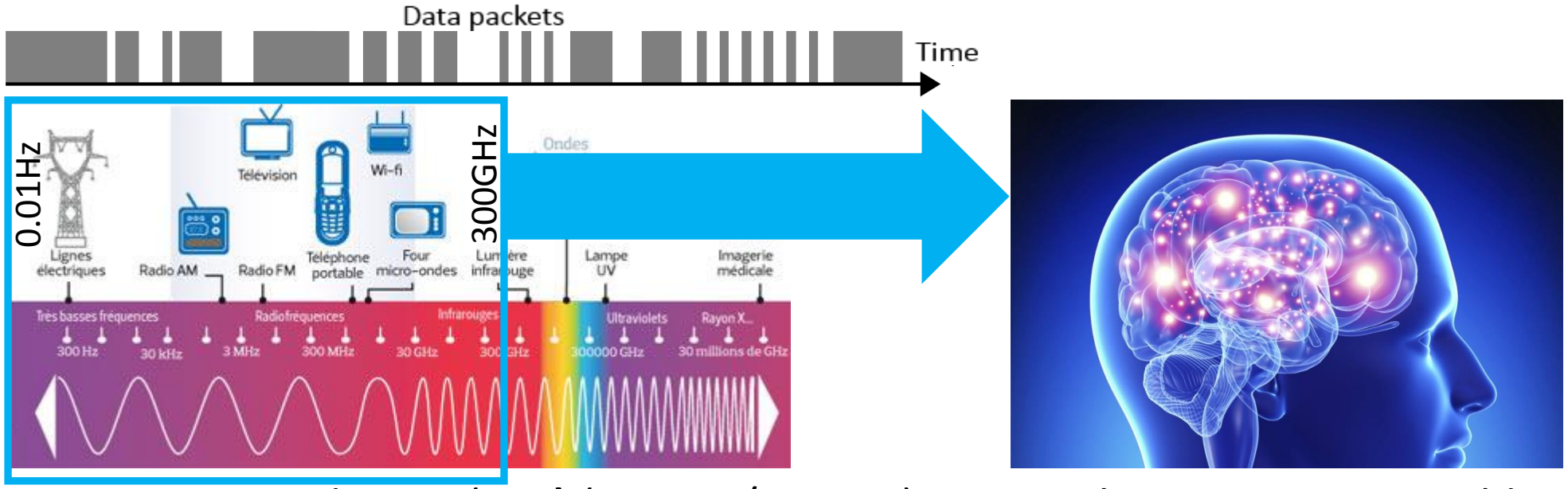
C

Putting these solutions into practice. Spreading the word



WHY BEWARE OF EMF ?

- **The effect of EM waves on our bodies has been proven**. It's easy to understand when you know that our organisms are biochemical and... **bioelectrical**! It is therefore logical that artificial EM waves should interact with us, especially as the **intensity of artificial radiation has increased to billions of times that of natural radiation** (10^{18}). What's more, wireless radio communications operate with data "packets", and these **low frequencies have a** greater impact on our bodies and also affect our **nervous system**.



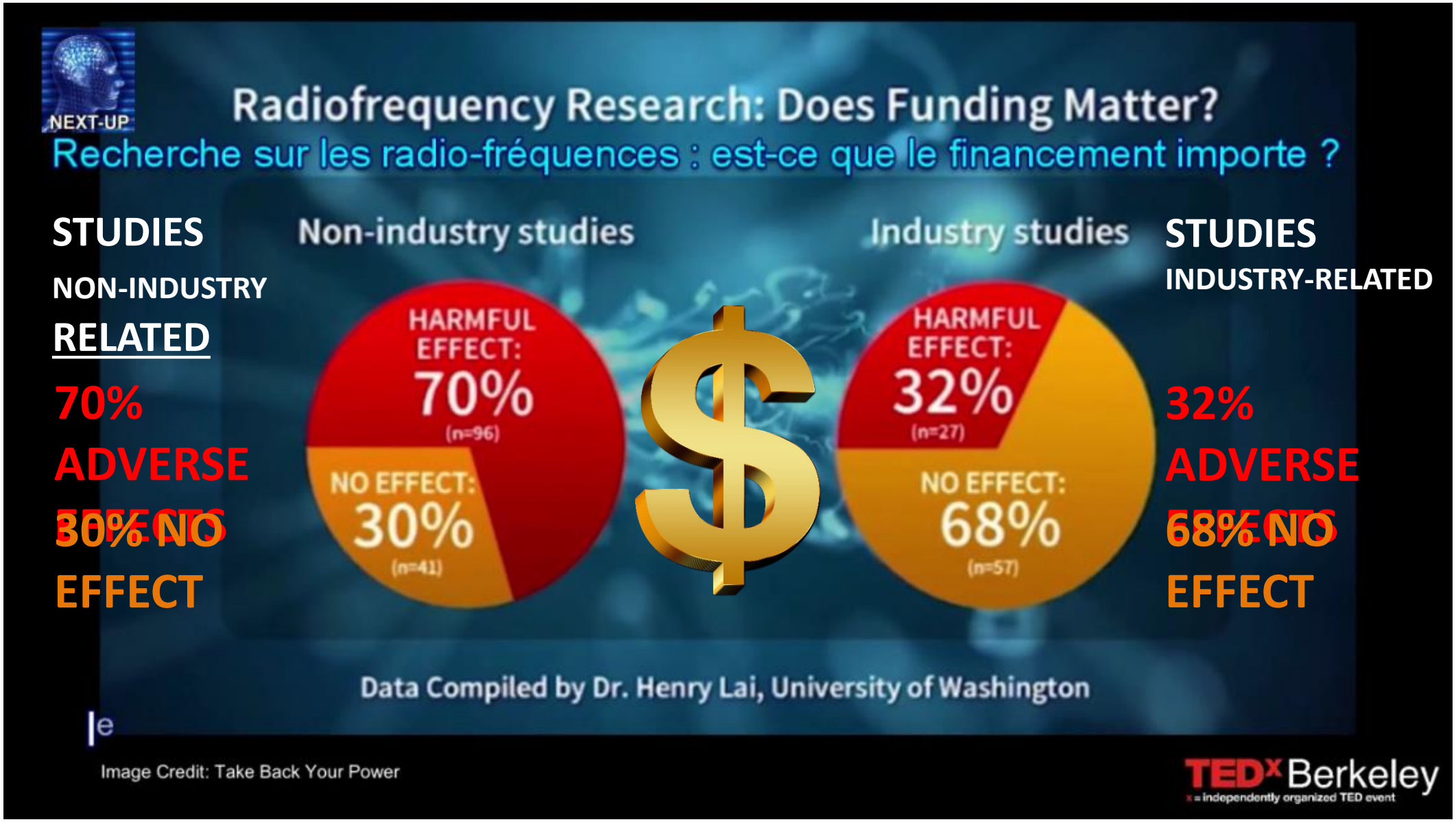
Non **I**onising **R**adiation (**NIR)** (FR:RNI / DE:NIS), EMF = Electro Magnetic Fields

WHY SHOULD WE CARE ABOUT THIS ?

- It's important to understand that just because **we don't feel anything doesn't mean it doesn't affect us**. Some people have **developed illnesses, sometimes serious ones,** without realising that they, or at least part of them, could have originated there.
- We can be affected **without really being aware of it**, for example by blaming the symptoms of various ailments on something else: fatigue, stress, food, lack of exercise, etc.

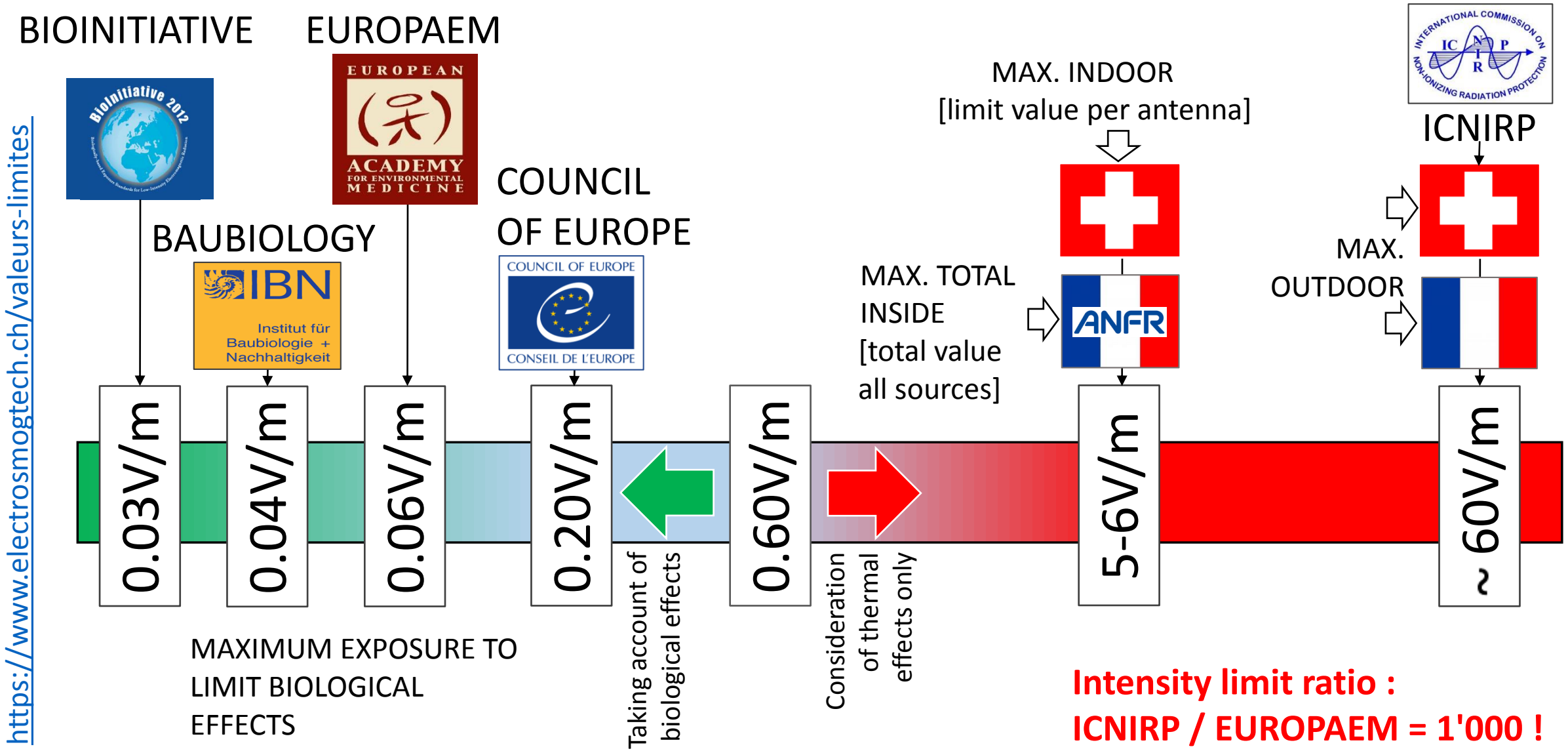
- People can **become EHS (intolerant to electromagnetic waves) without any warning signs**, as has happened to many people we know. And then their lives suddenly turn upside down...
  It's impossible to work now that there are waves everywhere, and there's **no compensation from the** state or insurance companies. However, this intolerance is **recognised as a disability** in Great Britain, Norway and Sweden, and can be diagnosed by specialist doctors (MedNIS network, Dr Calame, Dr Milbert, etc.).

Why is there some uncertainty about these effects?



MAXIMUM EXPOSURE VALUES

https://www.info-emf.ch/valeurs-limites



Intensity limit ratio :
ICNIRP / EUROPAEM = 1'000 !

ICNIRP: International Commission for Non Ionizing Radiation Protection

The ICNIRP considers that it is not necessary to take account of non-thermal effects on the human body.

The ICNIRP considers that the maximum limit for exposure to waves for the **public** is **123V/m**, for **workers 275V/m** and that the threshold **for health effects** is...

388V/m!

ICNIRP

Scientific basis

- Major reviews and original papers

Only adverse health effects through
- nerve stimulation (up to ~10 MHz, limits from 2010 guidelines)
- heating (from ~100 kHz)

- No evidence for
  - cancer
  - electrohypersensitivity
  - infertility
  - other health effects

REJET total des effets biologiques non lié à l'échauffement du corps !

L'ICNIRP ne prend en compte que les effets thermiques et les stimulations des nerfs jusqu'à 10MHz. Elle nie donc les autres effets comme le cancer, l'électrohypersensibilité ou intolérance aux ondes (EHS), l'infertilité, etc. Elle ne considère comme dangereuse que l'élévation de **plus de 1°C** de la température interne du corps, ou une augmentation de température des tissus **au-delà de 41°C**. Et ceci sur un temps de **6 à 30 minutes** ! Aucun effet à moyen et long terme pris en compte.

ICNIRP

Echauffement des tissus : + 5°C !

Adverse health effects identified

- Deep body temperature: increase >1 °C
- Tissue temperature: temperature >41 °C

ICNIRP

Basic restrictions

Seuil d'effets sur la santé

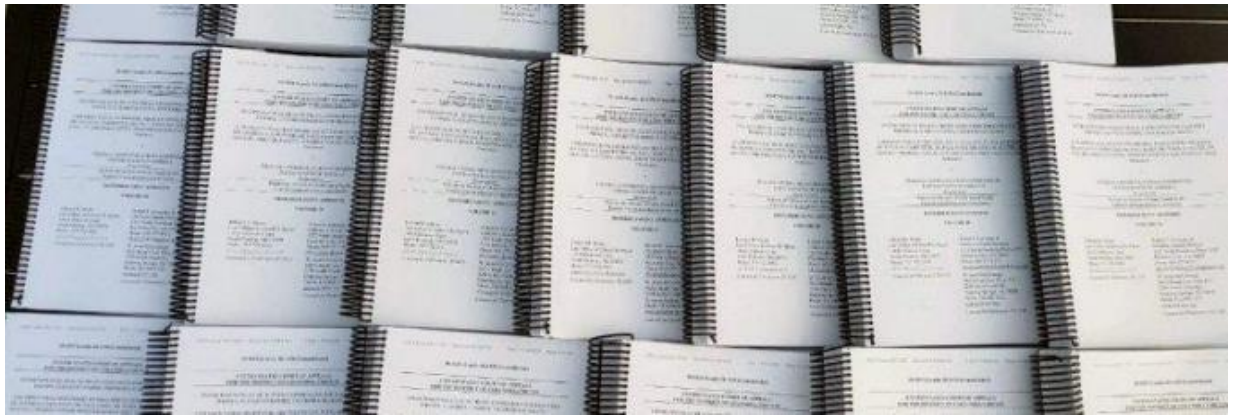
Parameter	Frequency range	ΔT (Echauffement)	Spatial averaging	Temporal averaging	Health effect level	Reduction factor	Workers (Travailleurs)	Reduction factor	General public (Public)
Core ΔT	100 kHz-300 GHz	1°C	WBA*	30 min	4 W/kg	10	0.4 W/kg	50	0.08 W/kg
Local ΔT (Head & Torso)	100 kHz-6 GHz	2°C	10 g	6 min	20 W/kg	2	10 W/kg	10	2 W/kg
Local ΔT (Limbs)	100 kHz-6 GHz	5°C	10 g	6 min	40 W/kg	2	20 W/kg	10	4 W/kg
Local ΔT (Head & Torso, Limbs)	>6-300 GHz 30-300 GHz	5°C	4 cm² 1 cm²	6 min 6 min	200 W/m² 400 W/m²	2	100 W/m² 200 W/m²	10	20 W/m² 40 W/m²
		+5°C !			388V/m !		275V/m !		123V/m !

* WBA: whole body average

20W/m2 = 86V/m
40W/m2 = 123V/m
100W/m2 = 194V/m
200W/m2 = 275V/m
400W/m2 = 388V/m

The ICNIRP denies effects such as cancer, infertility and intolerance to waves (EHS). It justifies its claims with publications by its own members.

The ICNIRP considers a **rise in** tissue temperature of 5°C (including the cornea of the eye) to be acceptable, i.e. up to **41°C!**



LAWSUIT AGAINST THE FCC (USA)

(FCC = Federal Communications Commission)

ZIP Archive : 11’000 pages of documents

https://www.electrosmogtech.ch/_files/archives/12550c_3fbe5757c7ba404695e74e327c955905.zip?dn=11000%20pages%20case%20against%20FCC.zip

- For decades, the public was told that there was **no evidence** that wireless technologies were harmful.
- Allegations about the **harmful effects of 5G** have been described as "conspiracy theory".
- A landmark lawsuit against the **Federal Communications Commission (FCC)** disputes these claims, asserting that the **damage has been proven** and that there is an **epidemic of disease**.
- Recently, the main environmental and health organisations that filed the dossier submitted **11,000 pages of evidence** to back up their claims.
- And on Friday 13 August 2021, the **US Court of Appeals issued a landmark decision that calls into question the adequacy of the Federal Communications Commission's radio frequency exposure guidelines to protect human health**. [https://ehtrust.org]

  https://www.electrosmogtech.ch/_files/ugd/12550c_d2d2a89150424d2286664c374aa0539c.pdf

Electrosmog: document from the Swiss Federal Office for the Environment (OFEV / BAFU)

https://www.bafu.admin.ch/bafu/fr/home/themes/electrosmog/info-specialistes/mesures-contre-l-electrosmog/electrosmog--vue-d-ensemble-des-valeurs-limites.html

OFEV / BAFU Installation limit values 5-6V/m

The ORNI installation limit values are set **as a precautionary measure**.
They limit the **radiation from a single installation**.

- **The facility's limit values are not** based on **medical or biological knowledge.**
- They have been **set on the basis of technical, economic and operating criteria**.
- **These are not, therefore, values that guarantee harmlessness**.
- **Compliance with them cannot rule out any adverse health effects**.
- On the other hand, this does not mean that health problems will arise if these values are exceeded.

Council of Europe: Resolution 1815

Resolution 1815, signed by Switzerland and 25 other European countries, calls for

- *[8.1.1] to take all reasonable steps to **reduce exposure to electromagnetic fields,***
- *[8.1.2] to **review the scientific basis of the current standards for exposure to** electromagnetic fields set by the International Commission on Non-Ionising Radiation Protection (**ICNIRP**), which are **seriously flawed,***
- *[8.1.3] set up **information** and **awareness** campaigns on the risks **of potentially harmful long-term biological effects** on **the environment** and **human health**,*
- *[8.1.4] to pay **particular attention to "electrosensitive" people suffering from electromagnetic field intolerance** syndrome and to take **special measures to protect them**,*
- *[8.2.1] to set a **prevention threshold** for **long-term exposure** levels to microwaves indoors, in accordance with the precautionary principle, **not exceeding 0.6 volts per meter**, and to **reduce** it to **0.2 volts per meter** in the medium term,*
- *[8.4.3] **to lower the permissible thresholds for relay antennas, in** accordance with the "ALARA" principle (As Low As Reasonably Achievable), and to install **global** and **continuous monitoring systems** for all antennas,*
- *[8.4.4] to determine the location **of any new** GSM, UMTS, Wi-Fi or WIMAX **antennae not solely on the basis of the interests of the operators**, but in **consultation** with local authority officials and **the residents or citizens' associations** concerned.*

Phonegate: Switzerland misses out

PHONEGATE

ANFR
AGENCE NATIONALE DES FRÉQUENCES

[FRANCE] A total of **47 models of mobile phones** identified as dangerous to users' health have either been withdrawn from the French market or had their Specific Absorption Rate (**SAR)** updated by software.

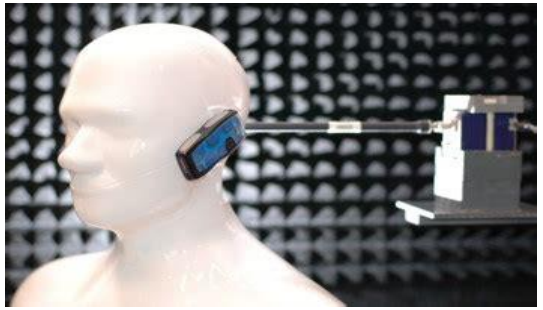
[SWITZERLAND] There is NO public authority concerned with carrying out **SAR tests on mobile phones**.

In Switzerland, the manufacturers themselves are **responsible for ensuring** compliance, so users have no **certainty** that their equipment is **actually compliant**.

www.phonegatealert.org
https://phonegatealert.org/france-liste-portables-dangereux
Phonegate Alert Switzerland: https://www.info-emf.ch/phonegate

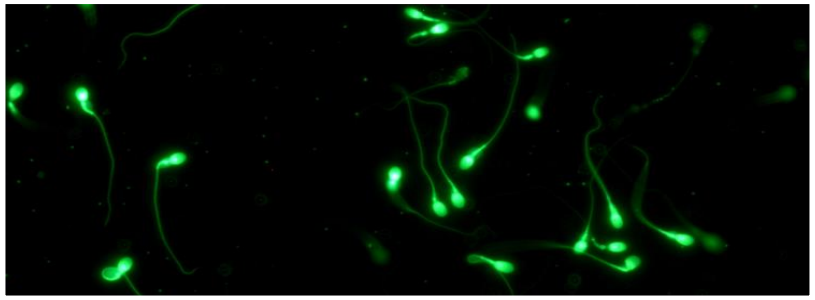
IMPORTANT:

1. **It would be illusory to believe** that a device with a SAR of **1.95W/kg** would be harmless while another with **2.05W/kg** would be dangerous! (Limit: **2.0W/kg**)
2. **SAR is simply a measure of heat dissipation** in the body, and the values accepted are **unrelated to any biological effects**, occurring well below these official values.



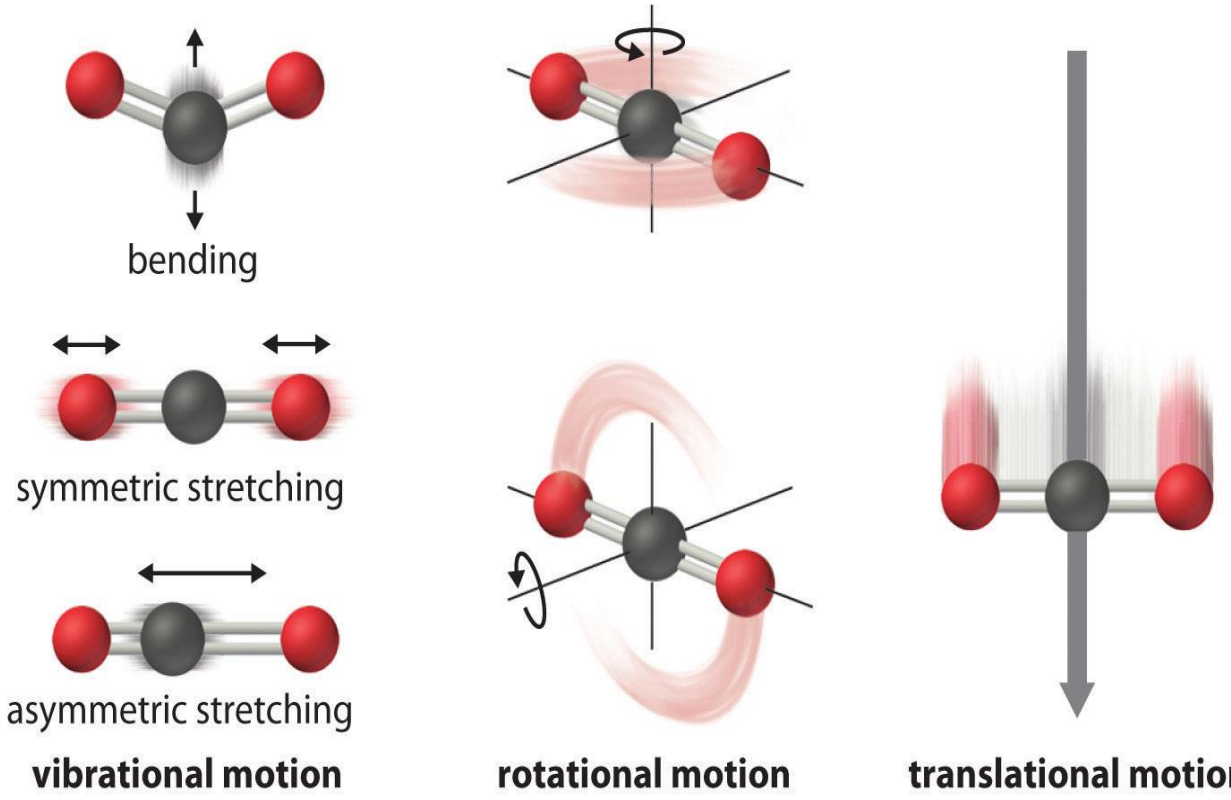
Effects of EM waves on male fertility - UniGE study

[www.20minutes.fr] : "A study by the University of Geneva, carried out on more than 2,800 men aged between 18 and 22 during their military service, over a period from **2005 to 2018**, has shown that men **using their phones more than 20 times a day have 30% fewer sperm** than those who use them once a week."



- **Where the phone is carried is obviously also a risk factor**, and many men slip it into the front pocket of their trousers, close to the testicles.
- **The problem** is that 3G/4G/5G phones **are in almost constant dialogue with the Internet** via the mobile data network, so they **transmit very frequently**, almost continuously.
- **It is inaccurate to claim**, as the article says, that the latest phones emit less noise; the exact opposite is true. Once again, the focus is solely on warm-up.
- **Transmission 'peaks' in 5G mode are stronger in intensity than in 4G mode, and in 4G mode these peaks are stronger than in 3G mode**.

Interaction of an electromagnetic wave (NIR) with living matter (1)



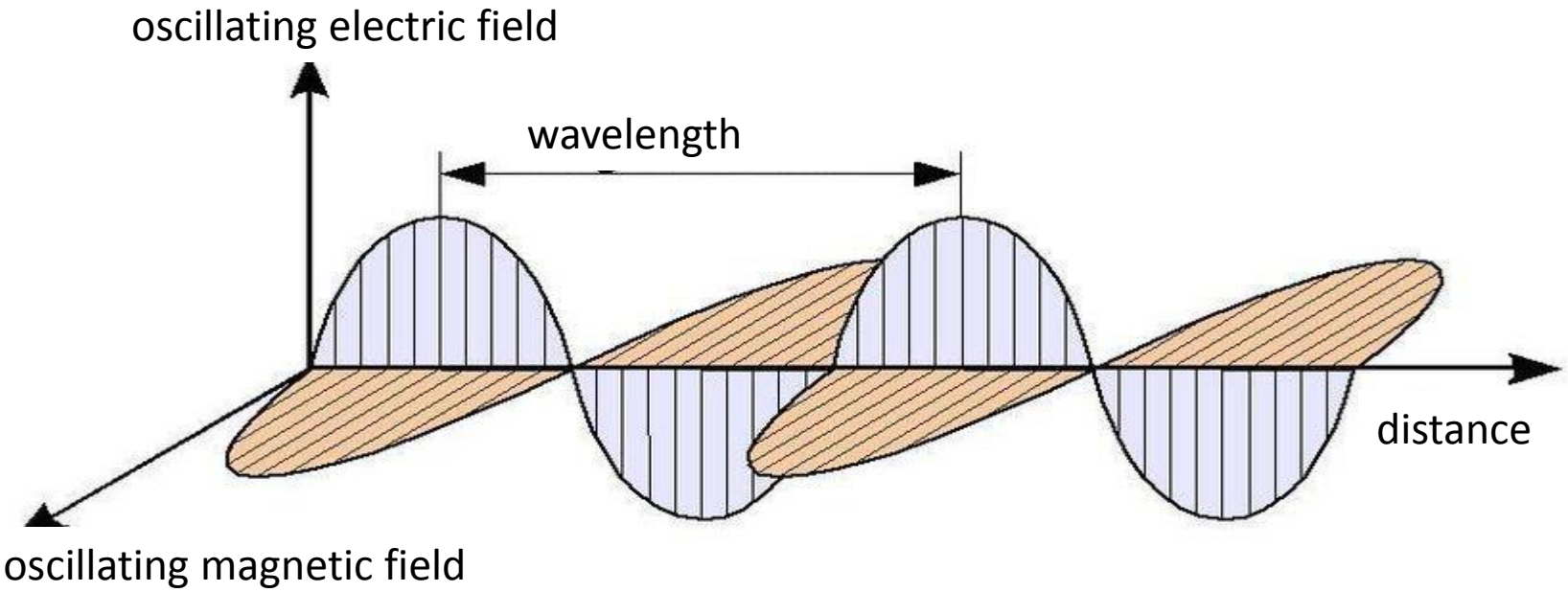
- **Resonance phenomenon:** molecules exposed to an electromagnetic field begin to **oscillate** at this frequency. The main effect is heating, but there are also **other interactions** resulting from this oscillation of the molecules in living matter. We **really can't presuppose the effect** that a certain frequency can have on the basis of more or less neighbouring frequencies. **Specific research is needed**. [International Journal of Oncology]

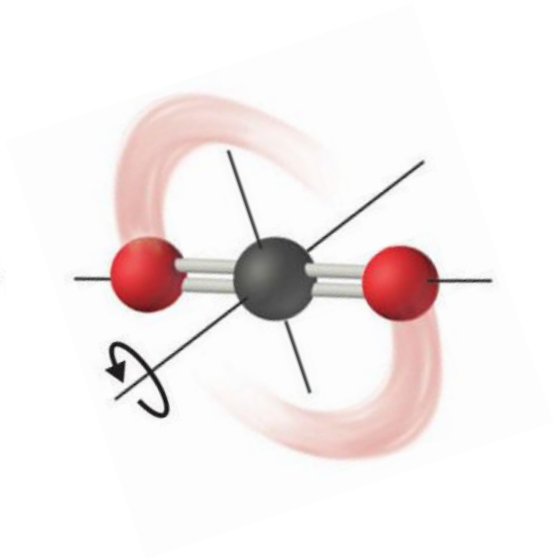
➡ These effects have not been studied!

Biological processes are **extremely complex**, and until **recently**, **radiofrequency radiation was very weak**, and **pulsed digital emissions** have only really become important in the **last fifteen years**.

Interaction of an electromagnetic wave (NIR) with living matter (2)

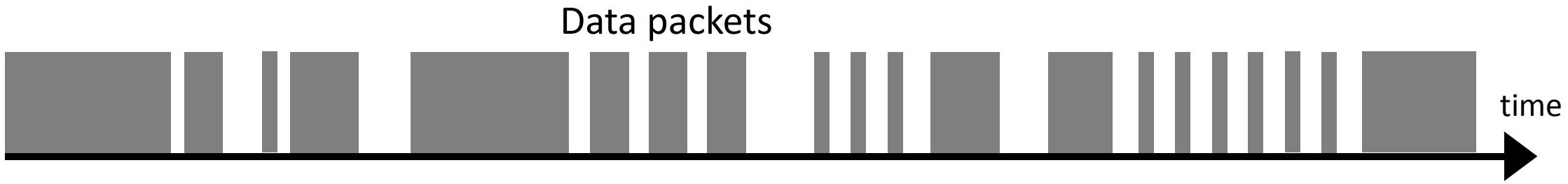
- **Polarisation** : another important way in which electromagnetic waves interact with matter. It refers to the **orientation of the electric field** of an electromagnetic wave. Molecules in some materials can **align themselves in response to an electric field**. This is the case with molecules in living organisms, because they are **electrically charged**. The polarisation of the radio signal emitted by antennae is in principle **vertical**, but the signals emitted by mobile devices are of course in all possible directions.
  [Int. Journal of Oncology] ➡ These effects have not been studied!





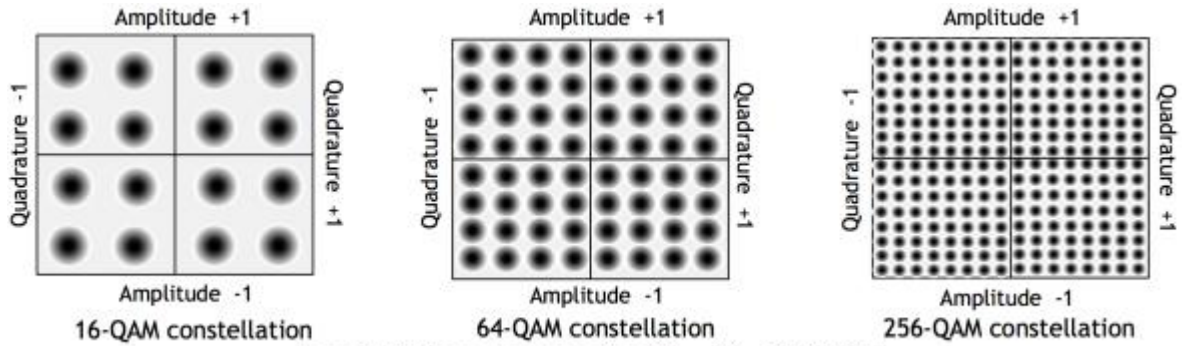
Interaction of an electromagnetic wave (NIR) with living matter (3)

- **Modulation :** different types of modulation are used, and those used for 4G and 5G differ from those used for 3G. 3G uses "direct sequence" spread spectrum technology (W-CDMA), while 4G uses frequency hopping spread spectrum technology (OFDMA). 5G also uses OFDMA, but with the addition of time-division multiplexing. Phase modulation is used (e.g. QAM), which is also likely to produce specific effects on the polarised molecules of living matter. ➡ These effects have not been studied!
- **Packet transmission :** this characterises digital transmissions, particularly 5G, because of the "time division duplex" (TDD), and this causes the appearance of low or very low frequencies, from a few Hz to a few tens of Hz. These frequencies are known as ELF (Extremely Low Frequencies) and have significant effects, not only on biological mechanisms but also on the central nervous system.



Interaction of an electromagnetic wave (NIR) with living matter (4)

To be able to transmit at very high bit rates, the "QAM" modulation scheme is increased, so that more symbols are transmitted per unit of time, and therefore **more data**.

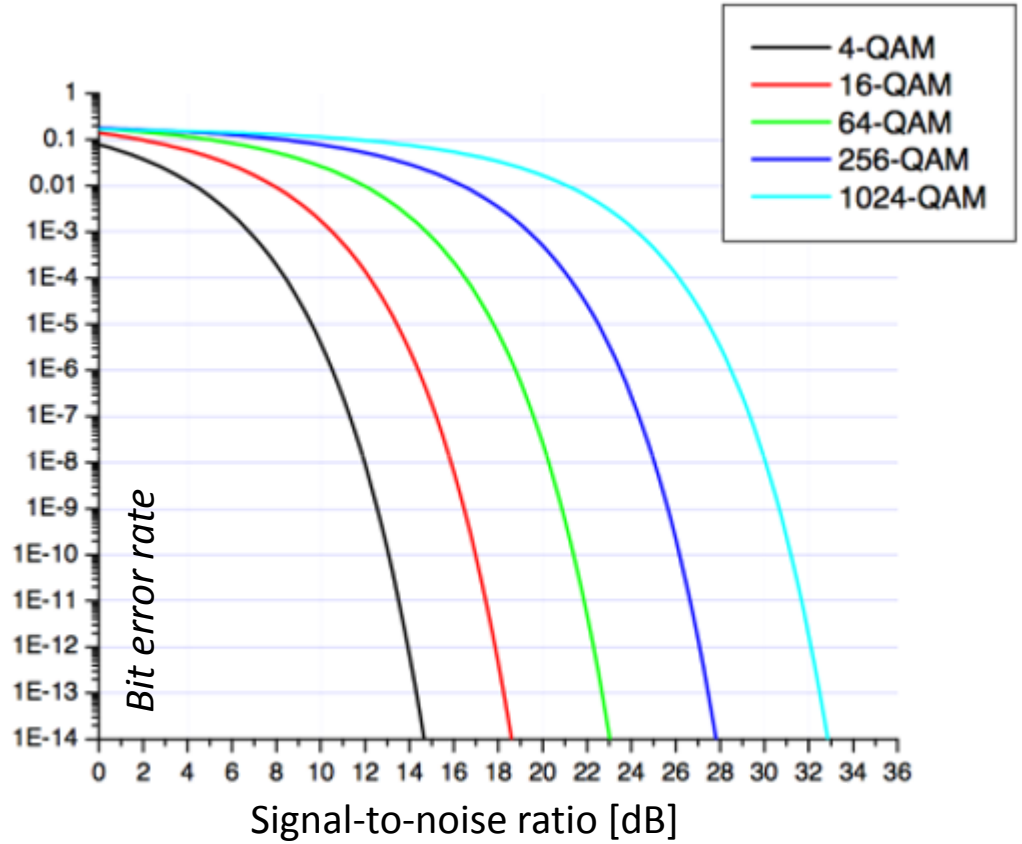


Constellation diagrams for 16-, 64-, 256-QAM

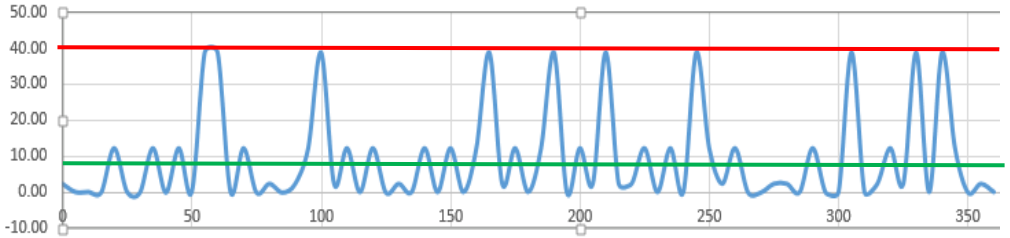
But the consequence is an **increase in the rate of transmission errors**, if the transmitted power and interference (radio noise) remain the same. So :

→ **INCREASE IN TRANSMITTING POWER (ERP)**

And this obviously has consequences for living beings.



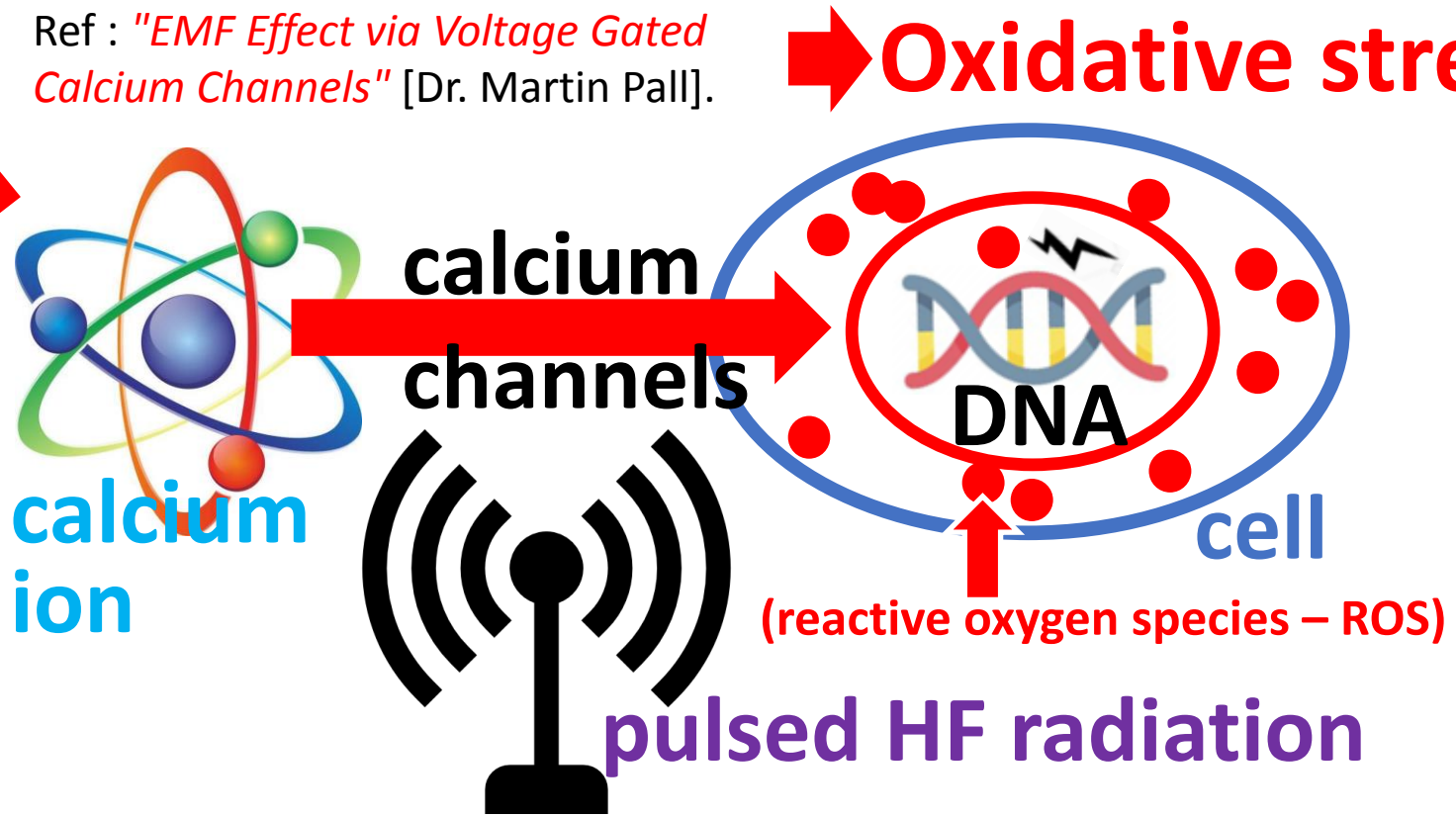
Another consequence of the increased modulation scheme is **HIGH "PEAKS"** in the transmitted signal. In technical terms, a high "PAPR" (ratio between the peak values and the average power of the radio signal).

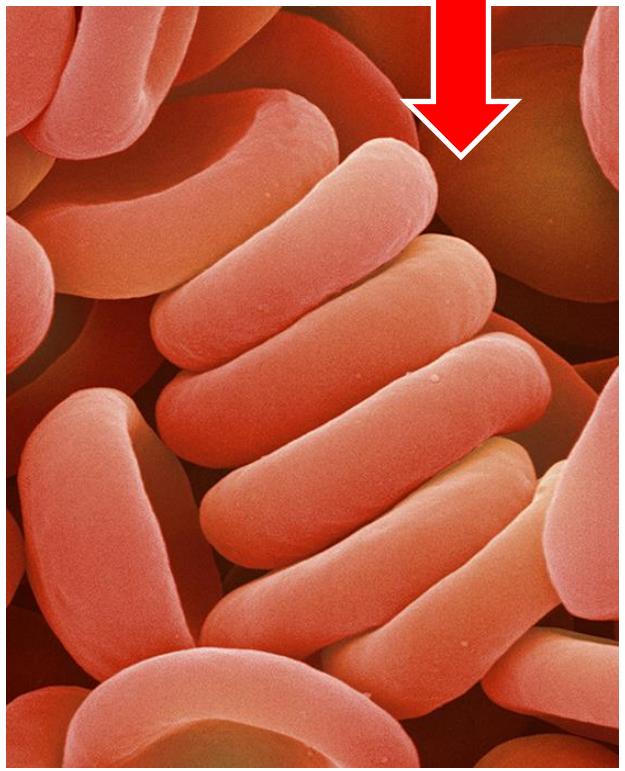


Interaction of an electromagnetic wave (NIR) with living matter (5)

- **Effects on biological mechanisms** [International Journal of Oncology].
  Opening of cell voltage-gated calcium channels (VGCC), opening of the blood-brain barrier, interaction with bacteria (e.g. *staphylococcus aureus* in the 3-4GHz band), agglomeration of red blood cells into "rolls"...

Ref : *"EMF Effect via Voltage Gated Calcium Channels"* [Dr. Martin Pall].





Interaction of an electromagnetic wave (NIR) with living matter (6)

Other effects: generally speaking, we are subjected to a "cocktail" of electromagnetic waves from all sources:

- Mobile phones, tablets, computers, connected watches, Bluetooth headsets, wireless speakers, various connected objects...
- WiFi
- DECT cordless phones
- Mobile phone antennas
- DAB+ radio / digital TV antennas
- Civil and military radar, anti-collision radar for cars
- Satellites for mobile telecommunications (Starlink, etc.)
- Power Line Communication (PLC) with smartmeters
- High-voltage lines, domestic electricity network

➡ This "cocktail effect" has not been studied!

EUROPAEM: EMF admissible values depending on technologies

Tableau 3: Valeurs indicatives de précaution pour les rayonnements radioélectriques. $V/m = \sqrt{377\ (W/m^2)}$

Source RF Peak Hold	Exposition de jour	Exposition de nuit	Populations sensibles[1)]
Emission radio (FM)	10'000 µW/m²	1000 µW/m²	100 µW/m²
TETRA	1000 µW/m²	100 µW/m²	10 µW/m²
DVBT	1000 µW/m²	100 µW/m²	10 µW/m²
GSM (2G) 900 à 1800 MHz	100 µW/m²	10 µW/m²	1 µW/m²
DECT (téléphone sans fil)	100 µW/m²	10 µW/m²	1 µW/m²
UMTS (3G)	100 µW/m²	10 µW/m²	1 µW/m²
LTE (4G)	100 µW/m²	10 µW/m²	1 µW/m²
GPRS (2.5 G) avec PTCCH* (8.33 Hz pulsation	10 µW/m²	1 µW/m²	0.1 µW/m²
DAB+ (10.4 Hz pulsation)	10 µW/m²	1 µW/m²	0.1 µW/m²
Wi-Fi 2.4/5.6 GHz (10 Hz pulsation)	10 µW/m²	1 µW/m²	0.1 µW/m²

+5G?

2V/m to 0.6V/m
EHS: 0.2V/m

0.2V/m to 0.06V/m
EHS: 0.02V/m

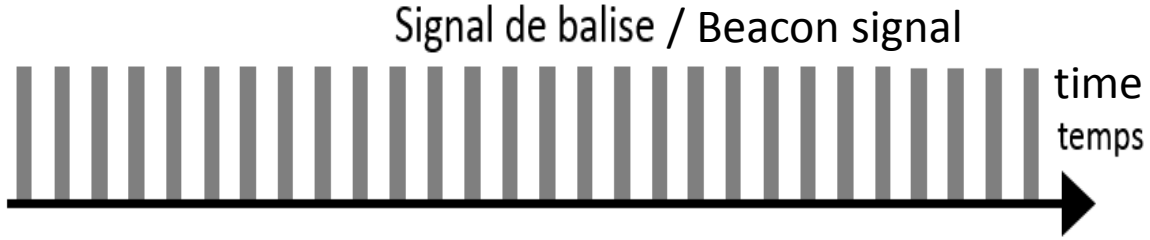
0.06V/m to 0.02V/m
EHS: 0.006V/m

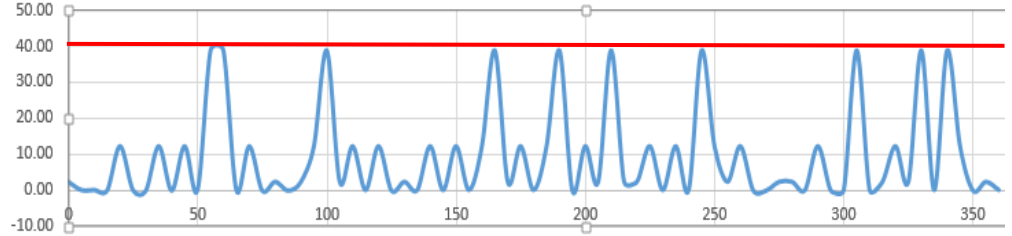
10'000µW/m2=2V/m, 1000µW/m2=0.6V/m, 100µW/m2=0.2V/m, 10µW/m2=0.06V/m, 1µW/m2=0.02V/m

Different technologies, different biological effects...

Looking at various studies, we can deduce a few general rules:

- **Living organisms are more affected if a pulse is present in a signal** [reference].
  This is why the EUROPAEM rates WiFi, GPRS, DAB+, etc. unfavourably.





- **It is to be feared that 5G will also fall into this same category**, precisely because of the presence of a regular pulse in the signal, like WiFi, as soon as the "Stand Alone" mode is activated.
- **Living organisms are more affected if there are significant 'peaks' in a signal.**
  This would explain why 4G is less well tolerated by sensitive people than 3G.
  And why 5G is even less well tolerated [reference].
- **This explains why the argument** "but radio has been around for 100 years" **is not valid**!
- The claim of **"technological neutrality" is invalid** because it is based solely on the **RMS value**, which is a **measure of the power emitted or received**, and does not take account of biological effects.

Possible effects of pulsed electromagnetic waves

The effects of pulsed electromagnetic waves in the frequency ranges used by mobile phones and WiFi vary from one individual to another. As a general rule, however, the following conditions may be encountered, in order of increasing seriousness:

- Headaches, migraines
- Insomnia, nervousness, hyperactivity
- Feeling like your head is in a vice
- Tingling, paresthesia
- Memory loss, dizziness, disorientation
- Muscle/skeletal pain (fibromyalgia)
- Digestive disorders, food intolerances
- Visual problems (failing eyesight)
- Heart problems (palpitations)
- Muscle disorders (tremors)
- Hypertension
- Tinnitus
- Generalised anxiety, depression
- Difficulty concentrating, head fog
- Generalised fatigue with no identifiable cause
- Burning sensation on the skin and body
- Generalised inflammatory state
- Reduced fertility, sterility
- Allergies, skin erythema, rashes
- Increase in heavy metals in the brain
- Increase in blood glucose levels
- Intestinal inflammation, Crohn's disease
- Changes in blood and bone marrow
- Damage to DNA
- Autoimmune diseases
- Glaucoma
- Diabetes
- Heart attack
- Multiple sclerosis
- Leukaemia, cancer, various tumours

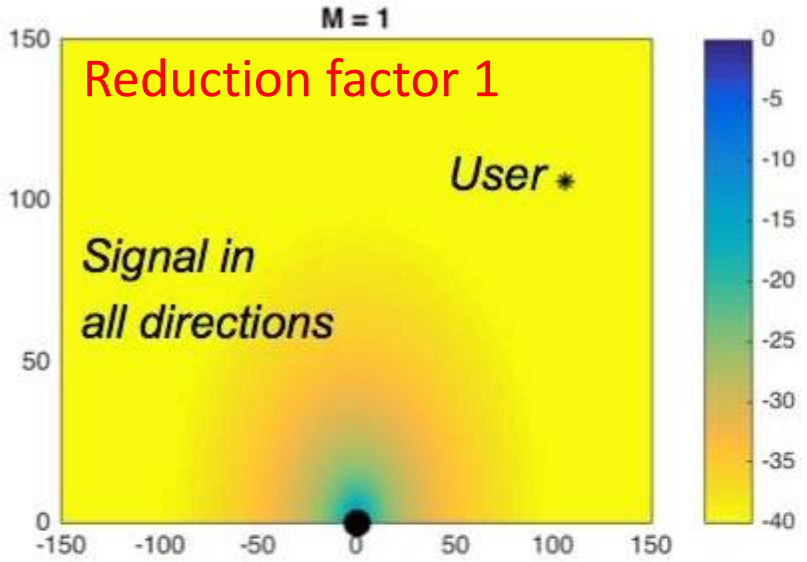
Which frequencies for 5G?

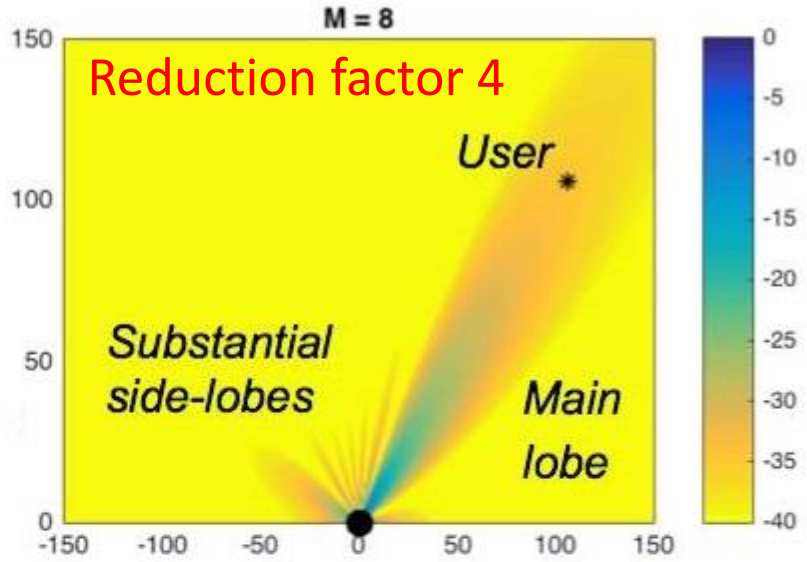
Several frequency bands are used:

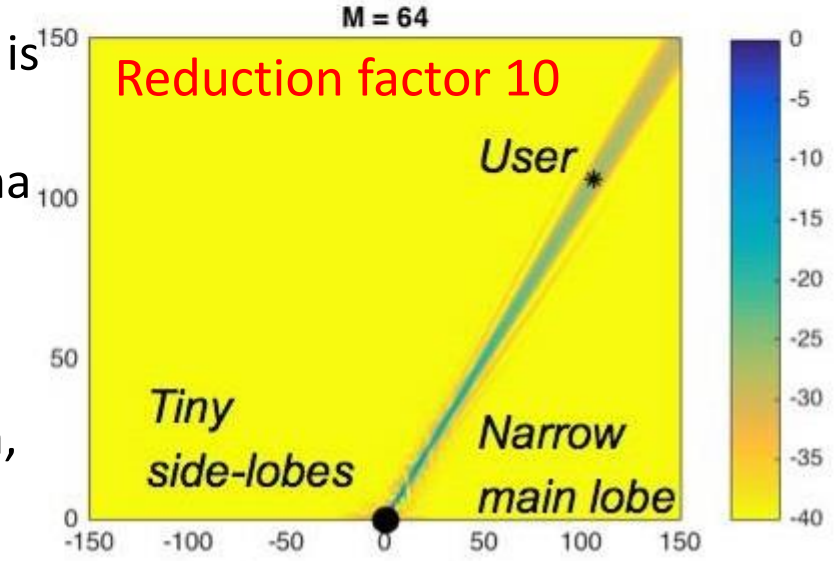
- **A new band from 700 to 900 MHz**, for connected objects + indoor telephony. Permanent transmission.
- **A new band at 1.4GHz**, known as "SDL", for downloading (**S**upplementary **D**ownload **L**ink).
  Transmission on demand.
- **Reuse of the 1.8GHz to 2.6GHz band** for "basic" or "wide" 5G, with antennas already in place; continuous transmission, no adaptive mode.
- **A new band from 3.4GHz to 3.8GHz for high-speed 5G** ("5G+" or "fast") for outdoor mobile telephony, autonomous cars, robots, etc. On-demand transmission in case of adaptive antennas, but continuous transmission of beacon signal.
- **A new band for ultra-high-speed, in the 26 to 28 GHz range**, possibly more later (40..60GHz to 300GHz).
  Emissions not yet clearly defined.
  Not yet allocated in Switzerland.

DIFFERENCES BETWEEN 4G and 5G: ADAPTIVE ANTENNAS

[info: https://www.stop5g.ch/5g-et-antennes-adaptatives]







Above: classic antenna, the emission is not concentrated in one place.
Top right: adaptive 8-element antenna (8T8R), medium beam width, higher intensity on the user.
Bottom right: 64-element adaptive antenna (64T64R), very narrow beam, very high intensity on the user.

We can see that **the narrower the beam, the greater the intensity**. You have to be **very far away from the antenna** to avoid being in the blue or green zone. With a conventional antenna, if you are away far enough, the intensity will never be strong. There is no exact information on the **width of such a beam.** The beam from a 64T64R antenna cannot be as narrow as shown in the picture.
And if there are a lot of devices connected, **multiple beams will be** needed **simultaneously**.


5G mit strengen, vorsorglichen Grenzwerten ist schwierig! (SWISSCOM)
5G with strict and cautious limit values is difficult!
The 6V/m standard does not allow 5G to be deployed in Brussels. 5G alone must be able to produce at least as much radiation as the technologies currently in use.
This is why IBPT is proposing to adopt a standard above 14.5V/m and up to 41.5V/m.
Belgian Institute for Postal Services and Telecommunications (IBPT)
« 6V/m?
La norme de 6 V/m ne permet pas de déployer la 5G à Bruxelles. La 5G, seule, doit pouvoir produire au moins autant de rayonnements que ce qui est produit par les technologies actuellement utilisées....
C'est pourquoi l'IBPT propose d'adopter la norme au-dessus de 14,5 V/m et jusqu'à 41,5 V/m. »
14.5V/m to 41.5V/m!
Institut belge des services postaux et des télécommunications (IBPT),
https://www.ibpt.be/public/files/fr/22619/Etude_impact_normes_rayonnement_bruxelloises_deploiement_reseaux_mobiles.pdf
25

Some problems with 5G

No reliable measurements of radiation from 5G antennas.
Exposure is calculated theoretically, not measured.

Emissions from 5G antennas are averaged over 6 minutes, which allows for significant, repeated overshoots (up to 16V/m).

Automatic antenna verification is not working as expected, given that with 3G/4G, one antenna in five is already transmitting too loudly [reference].
What will happen with 5G? Who can guarantee that we won't be overexposed?

It should be remembered that emissions from 5G antennas are estimated on the basis of readings taken by the operators themselves and not via independent monitoring.

Despite adaptive antenna technology, which focuses wave beams on users, overall radiation is bound to increase with the proliferation of connected objects.

Summary of a Swedish study  **[Annals of Clinical and Medical Case Reports]**

Case report: *Both parents and their three children developed symptoms of microwave syndrome while on holiday near a 5G tower.*

This study showed that an **entire family**, consisting of two adults and three minor children, developed symptoms of **microwave syndrome** soon after arriving at a summer house located **125 metres from a 5G tower** where three telecommunications operators had installed 5G antennas.

The symptoms disappeared when the family returned to their own home where the RF radiation was much lower. **The study confirmed the results of our previous case studies showing that 5G base stations can cause microwave syndrome in healthy people within a short period of time**.

https://acmcasereport.org/wp-content/uploads/2023/12/ACMCR-v12-2046-1.pdf

Case report: *A 52-year-old woman in good health developed severe microwave syndrome shortly after a 5G base station was installed near her flat.*

https://acmcasereport.org/pdf/ACMCR-v10-1926.pdf

5G STAND-ALONE MODE -> TO BE IMPLEMENTED SOON

Until now, 5G in "Non-Stand-Alone" (NSA) mode has used 4G to connect devices, and **5G** to deliver **high-speed data**. In **stand-alone** mode, there's no need for 4G....

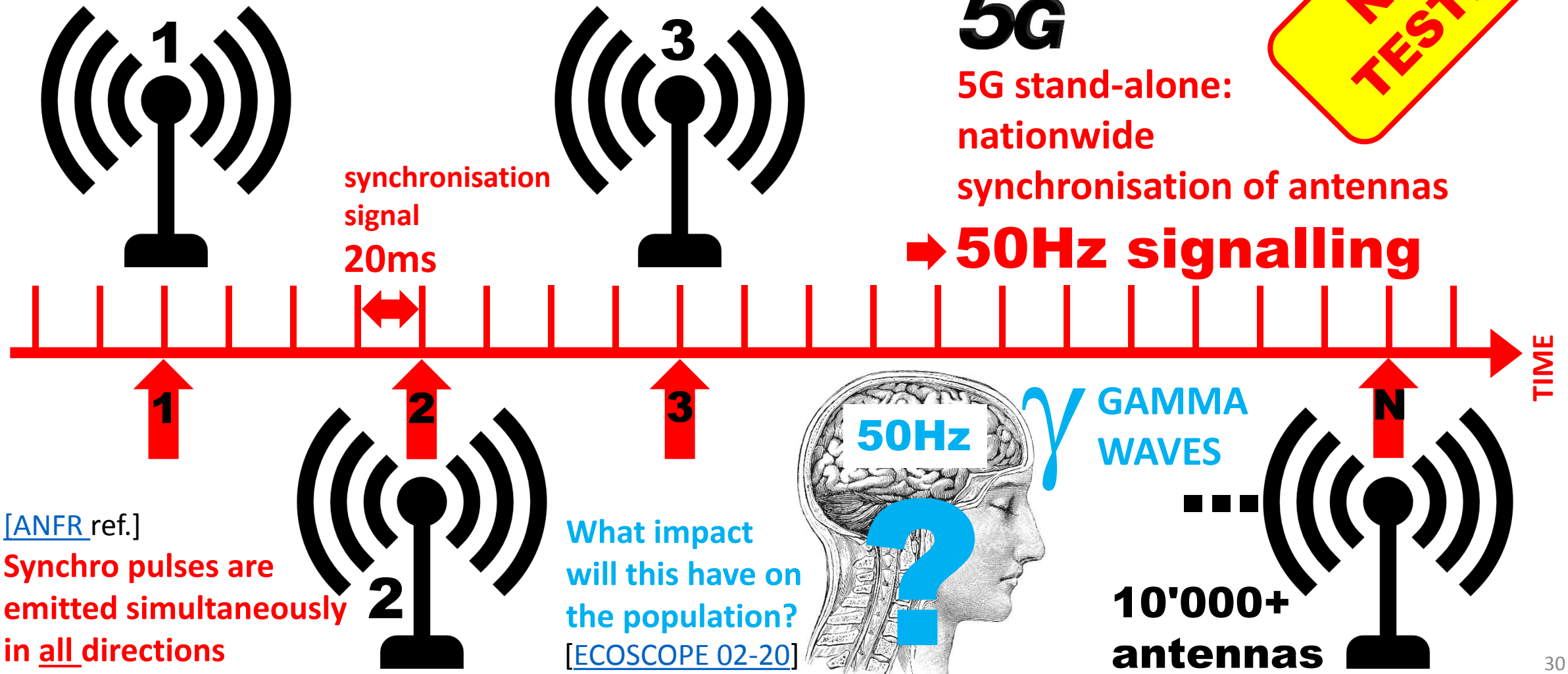
[ANFR doc]

NOT TESTED

5G

5G stand-alone: nationwide synchronisation of antennas

➡ 50Hz signalling



[ANFR ref.]

Synchro pulses are emitted simultaneously in all directions

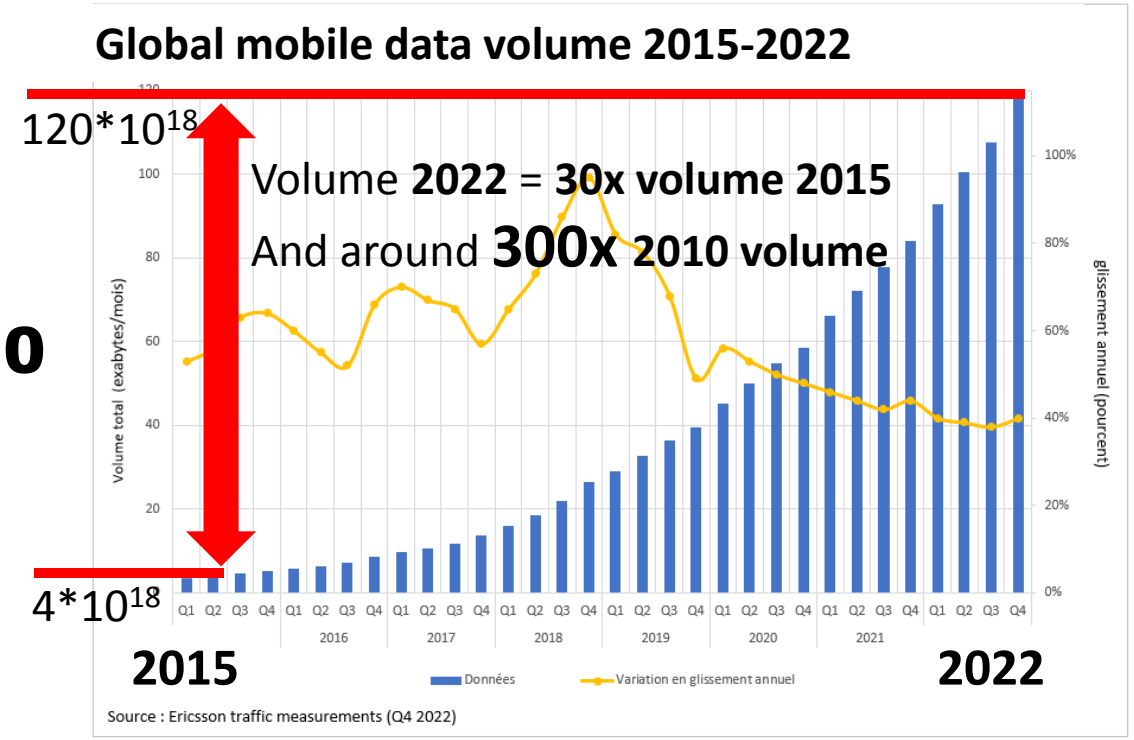
What impact will this have on the population?

[ECOSCOPE 02-20]

Radiation studies and monitoring, related issues (1)

- **A large-scale study** called "**Interphone**" was carried out between **2000** and **2010** to verify the **possible impact on the health** of people using mobile communication devices. The study did **not find** any significant impact.
- However, **this study was carried out BEFORE the huge boom in smartphones**, which appeared at the end of the decade (**2008** ->). As a result, **this study is definitely not relevant to the** changing situation. Study reference: https://interphone.iarc.fr

< 2010



> 2022

Radiation studies and monitoring, related issues (2)

Swiss monitoring: the latest 2022 monitoring report, although very well produced, nevertheless falls short on a number of important points:

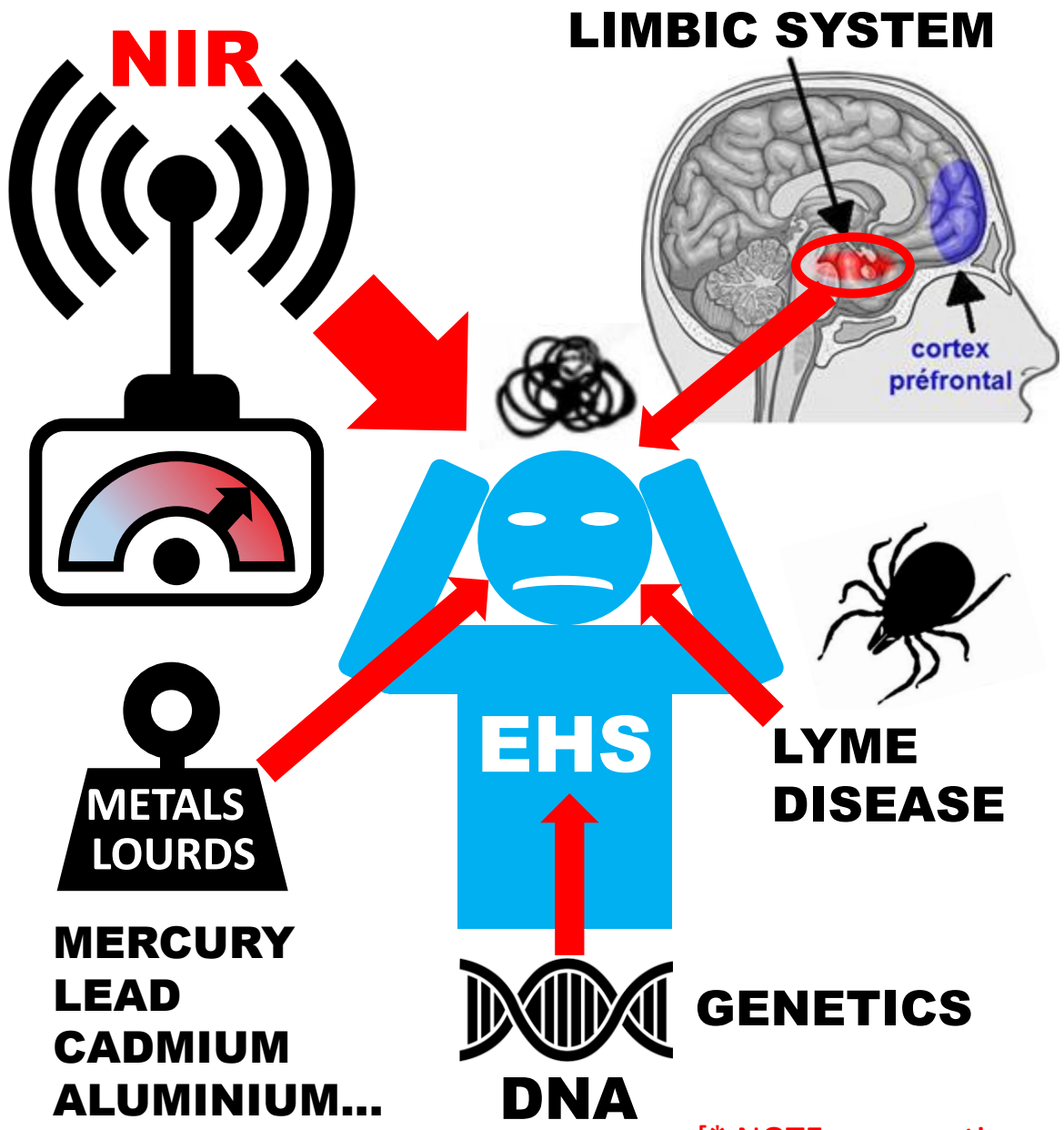
- **No measurements have been taken inside classrooms, despite the fact that they are heavily irradiated with NIR** from WiFis, tablets, computers, mobile phones, connected blackboards…

Measurements were only taken in the **corridors** and **playgrounds**.

- **Not enough action in the workplace**.

- **The fixed measurement points were** chosen in locations **with few mobile phone antennas**, all >200m apart. In addition, they are **not located in the first places of sensitive use** (LUS) concerned.

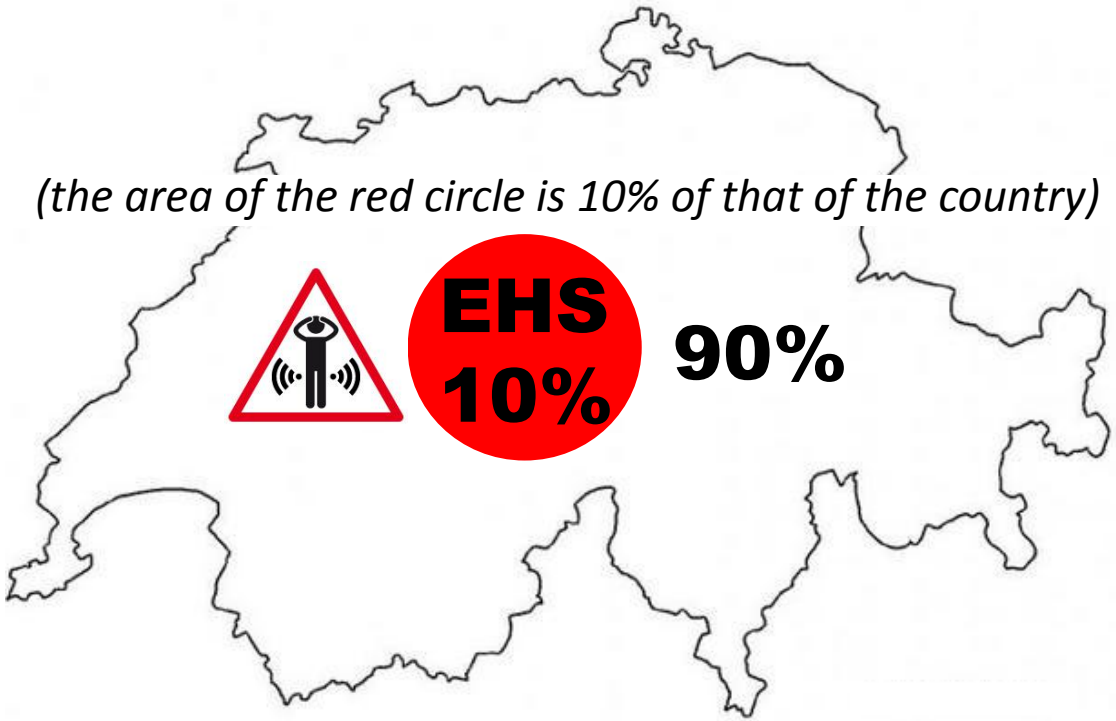
SOME POSSIBLE CAUSES OF EHS*



NIR intolerance, also known as EHS (electrohypersensitivity)

In Switzerland, around **10% of the** population is sensitive to the NIR, and around **5%** are seriously enough affected that they can no longer work because of the omnipresence of the NIR.

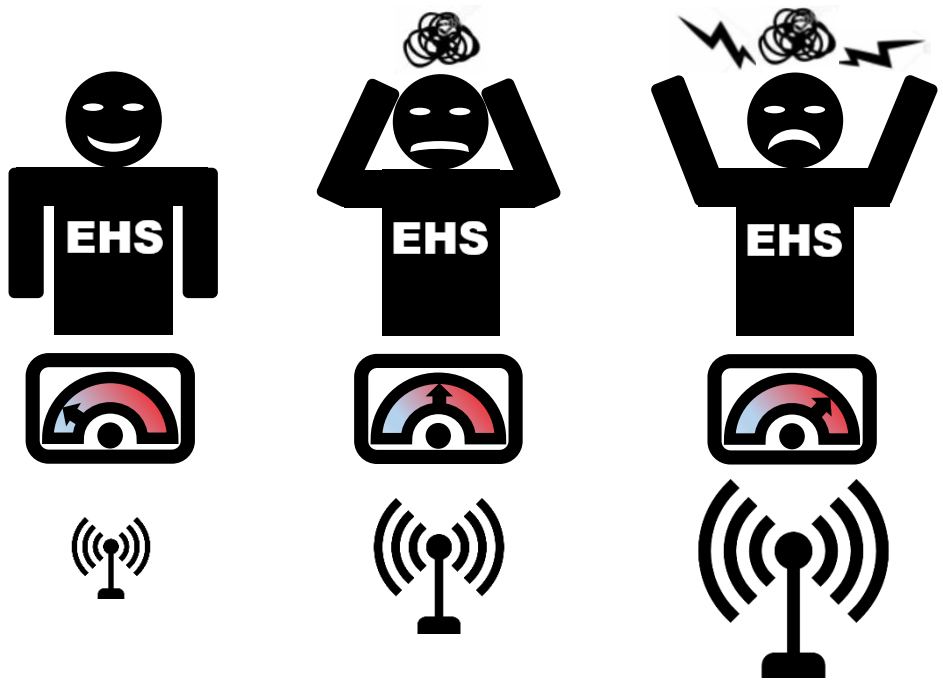
(the area of the red circle is 10% of that of the country)



[* NOTE: assumptions not medically validated]

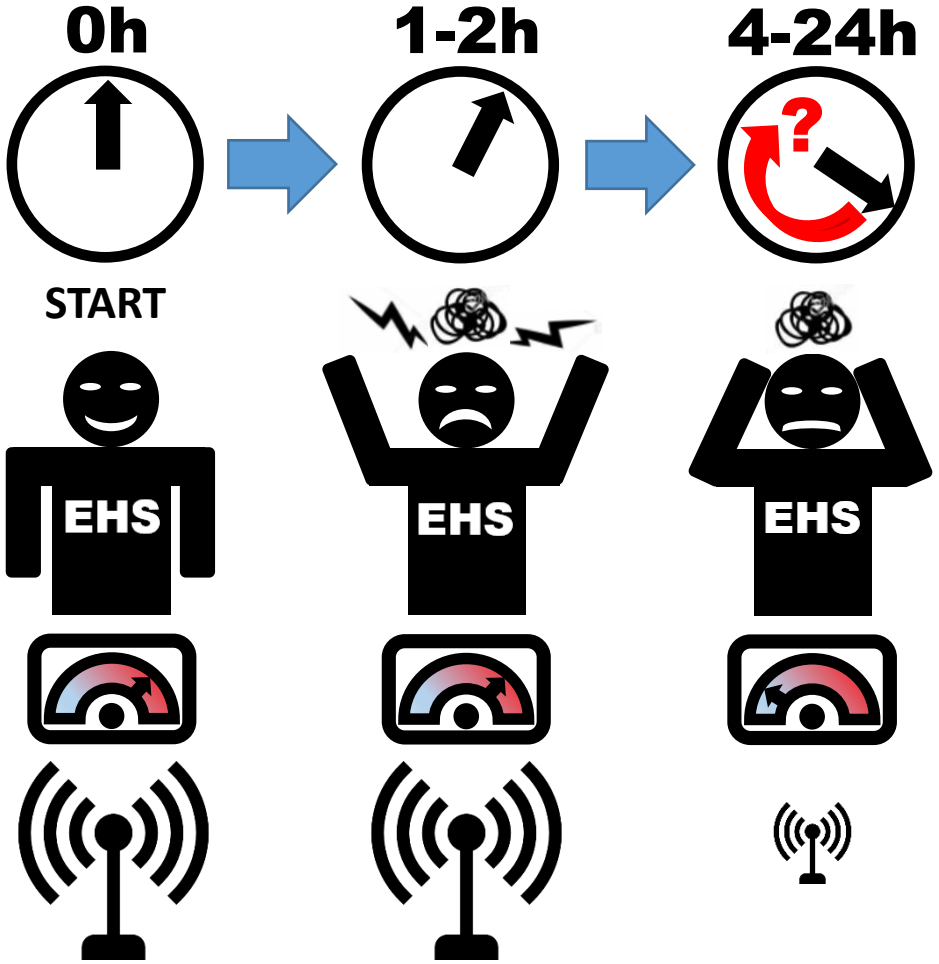
APPROX. ORDER OF MAGNITUDE OF EHS SENSITIVITY TO NIR

< 0.02 V/m | **< 0.20 V/m** | **> 0.20 V/m**



The sensitivities of EHS sufferers to NIR are not only **highly variable** but also **depend on the type of** radiation (3G/4G/5G, WiFi, Bluetooth, 50Hz). We are attempting here to give only indicative average values.

DELAYED EFFECT OF NIR ON EHS



This delay effect is present most of the time. Its duration depends on the individual, **varies from time to time**, and **depends on the type of** radiation (3G/4G/5G, WiFi, Bluetooth, 50Hz).

Swiss medical advisory network for EHS

MedNIS

MedNIS is a network of consultant doctors throughout Switzerland to whom family doctors can refer their patients for specialist advice on non-ionising radiation and health. [www.mednis.ch/fr]

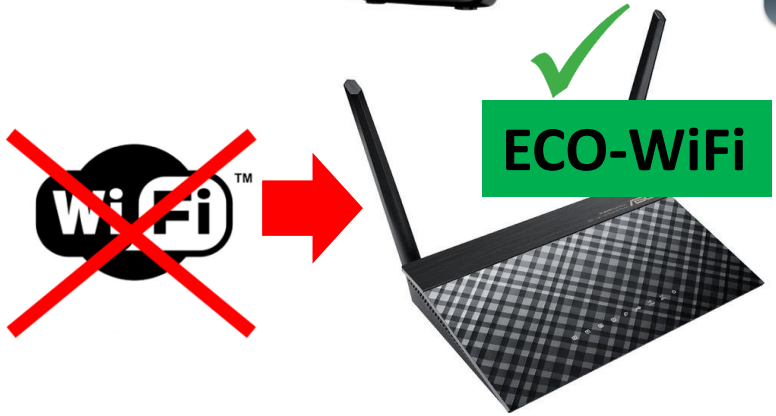
MedNIS is asking **EHS sufferers aged 18 and over** living in Switzerland to **take part in a questionnaire** designed to improve scientific knowledge in this field. **Information and registration:** www.mednis.ch

- **The staff at MedNIS** is specialised in **environmental medicine**, and therefore in diseases caused by environmental influences.
- **They look at the patient without prejudice** and do not immediately place them in the "**psy box**", as they are used to considering environmental influences as a cause of illness.
- **It is regrettable, however, that EHS syndrome is** not **detected by** means of **biological tests**, as described by Pr. Belpomme, or electrodermal activity (RGP), but solely on the basis of **the absence of any other explanation for the symptoms** experienced by patients.
- >>> MedNIS Flyer

A plea for greater respect for EHS (1)

Given the growing number of people suffering from this syndrome, we can only hope that measures are taken to **limit radiation.**

DOCTORS AND OTHER HEALTH PROFESSIONALS



WITHOUT DATA

HOSPITALS AND OTHER CARE CENTRES

A plea for greater respect for EHS (2)

The **current lack of respect for these rights constitutes** a **denial of citizenship**, as **EHS persons are not really free to come and go as they please anywhere**. This is a **serious violation** of the Swiss Constitution, as well as the Declaration of Human Rights.

So we can only hope, ask and demand that **measures be taken.**

- **These public places should avoid strong radiation as far as possible**:
  - **Restaurants**
  - **Cinemas, theatres**
  - **Libraries, museums**
  - **Shops, offices, schools** (-> document)

… and this would also benefit the health of the entire population !

And **clearly INDICATE** where **sources of high-frequency radiation** are located.
The same rules described above apply, in whole or in part, depending on the case.

- **Radiation should also be limited to what is strictly necessary** (which is technically possible) **in city streets**, in line with the **recommendations of the Council of Europe**.
- And last *but not least*, **white or near-white zones** in nature, and **protected buildings** in which radiation would be very low. **This exists in Sweden!**

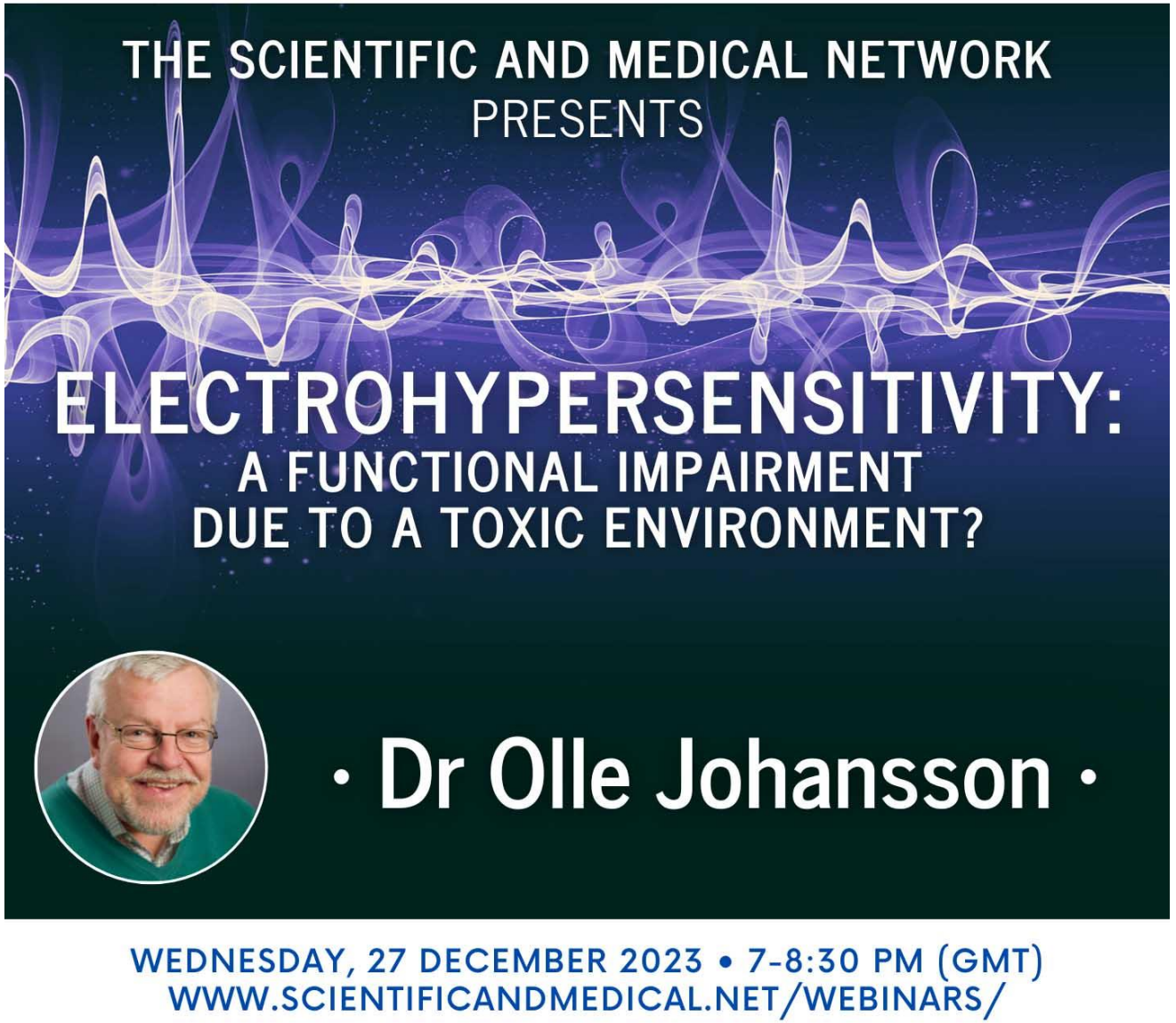
A plea for greater respect for EHS (3)

EMF Intolerance Syndrome (EHS) is **socially very confining**. It's **important to understand** that **EHS sufferers also want to live and participate** in evenings, meetings, etc. **Thank you for taking their requests into account!** Sometimes they also attend **public events** where HF radiation can be very present, but there are too many people to ask for anything. Only solution is to leave if it is too much...

When the group is small, you can ask them to **turn off WiFi** and put their **phones in aeroplane mode**, with **WiFi** and **Bluetooth** services **deactivated**, in the hope that the request will be **accepted** and **respected.**

When the group is **too large**, it's **impossible to ask**. But that doesn't mean **that you no longer suffer from EHS syndrome...** just that you've made the choice to accept the inconveniences, which can sometimes last **a long time** after exposure.

Towards a shift in scientific and political consensus?



EHS people are living proof that there is currently a **problem with our exposure** to man-made electromagnetic waves, particularly (but not only) those used for wireless communications. [Brussels Declaration, 2015]

Biological effects already **observed** at values **well below the official limits** show that our organisms **are indeed affected**.

Health effects may or may not be present, depending on **individual** capacities for resistance and regeneration.

A **large-scale study** would be needed to **change the consensus**.

BIOLOGICAL EFFECTS STUDIES REQUIRED!

https://www.20min.ch/fr/story/les-clients-de-salt-devraient-bientot-capter-le-reseau-de-spacex-555319765103

"*From the end of 2024, SALT subscribers will be able to stay connected via text messaging. The service will be extended to voice and data in 2025. This will guarantee full coverage with a back-up connection in the event of an emergency or power failure*" [SALT SA].

http://direct.starlink.com

STARLINK DIRECT TO CELL

Seamless access to text, voice, and data for LTE phones across the globe

The problem, however, is **assessing the overall radiation of the satellites** (and the **environmental problem**), particularly as there are so many of them: several dozen companies want to put tens of thousands of satellites into orbit...

Currently, it's below 0.5µW/m² (0.014V/m), which is the measurement limit of the Safe & Sound Pro mmWave Meter (20-40GHz).

This possibility does, however, obviate the need for antennas throughout the country. « White zones » are therefore possibles.

What solutions are there for EHS persons ?

- **Finding a place sheltered from the waves** is not easy. Even if you do find one, there's no guarantee that it will stay that way... An aerial can suddenly be installed, even in a seemingly unlikely place, which discourages the purchase of a property such as a chalet.
- **More and more EHS sufferers** are opting **for homelessness**, which offers the dual advantage of being able to move if a place suddenly becomes unlivable, and saving on rent.
- **But how do you stay in touch** with a network of friends and/or relatives?
  How can you **stay connected** without being **irradiated**? There are technical solutions, such as satellite internet (e.g. Starlink).

But it's NOT an easy life!

However, you should **avoid using the WiFi router** and opt for **the Ethernet network adapter**. The satellite dish should be positioned **as far away as possible** (the cable is 15m long) to **avoid side radiation** from the dish pointing skywards. **Lateral shielding** can help if needed.

Millimetre EM waves (OMM) - deployment

mmWave

BIOLOGICAL EFFECTS STUDIES REQUIRED!

Poor propagation in the atmosphere, + obstacles. A large number of *"small cells"* are therefore required. [reference]

5G MACROCELL (adaptive antenna)

5G

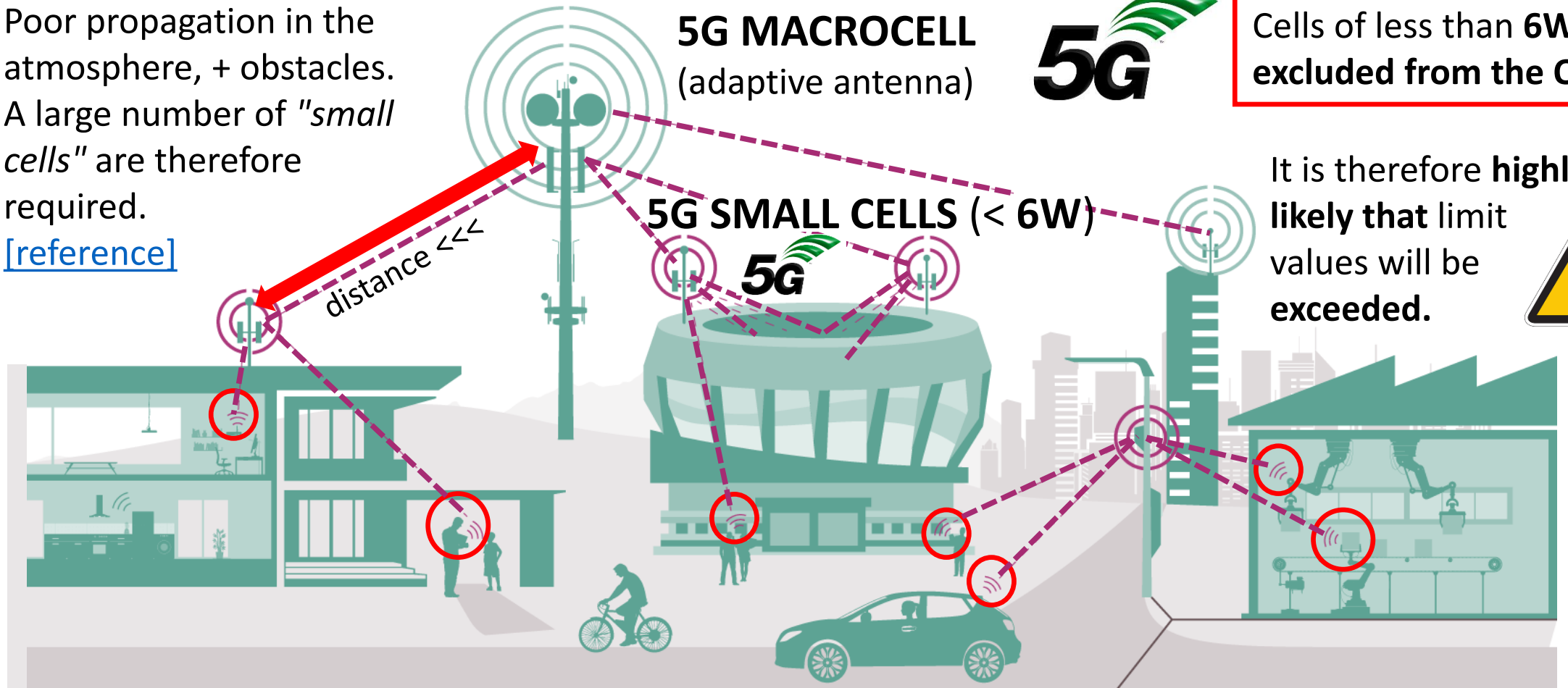
Cells of less than **6W** are **excluded from the ORNI**.

5G SMALL CELLS (< 6W)

5G

distance <<<

It is therefore **highly likely that** limit values will be **exceeded.**

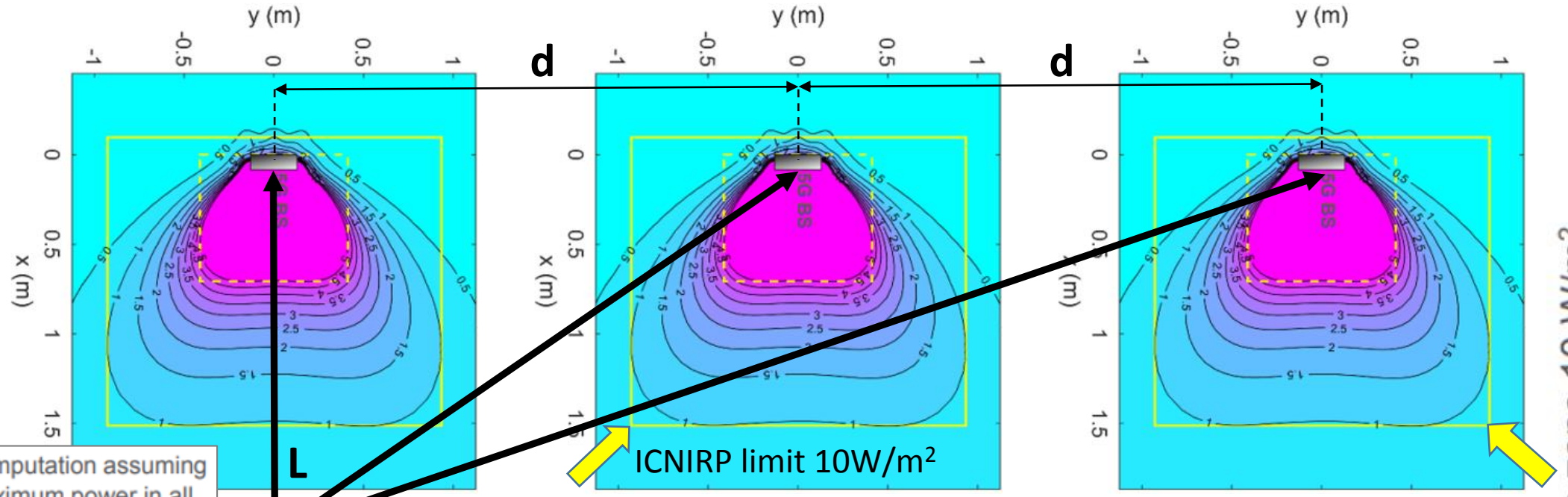


1W small cell :
61V/m at 1m50

Increased global radiation due to the **proliferation of *small cells***, **connected objects** and **adaptive antenna beams** sending data to *small cells*.

NO INVESTIGATION OR PERMIT REQUIRED to install *small cells*

EXPOSURE DUE TO A SERIES OF SMALL CELLS



Computation assuming maximum power in all beam directions, TDD taken into account

Power P at distance L: $P=10*(1.5/L)^2$ *(for the nearest source)*

Power P_2 due to a neighbouring source: $P_2 =10*(1.5^2 /(d +L^{22}$ *) (source next door)*

Power P_3 due to a neighbouring source: $P_3 =10*(1.5^2 /((2d) +L^{22}$ *) (next source)*

distance L [m]	intensité [V/m]	PFD [W/m2]	SOURCE 1	SOURCE 2	SOURCE 3	SOURCE 4	SOURCE 5	SOURCE 6	SOURCE 7	SOURCE 8
			0	1	2	3	4	5	6	7
1.5	61.42	10.007170	10.000000	0.002249	0.000562	0.000250	0.000141	0.000090	0.000062	0.000046
2.0	46.08	5.632170	5.625000	0.002249	0.000562	0.000250	0.000141	0.000090	0.000062	0.000046
5.0	18.49	0.907159	0.900000	0.002244	0.000562	0.000250	0.000141	0.000090	0.000062	0.000046
10.0	9.35	0.232123	0.225000	0.002228	0.000561	0.000250	0.000141	0.000090	0.000062	0.000046
20.0	4.88	0.063234	0.056250	0.002163	0.000557	0.000249	0.000140	0.000090	0.000062	0.000046
50.0	2.39	0.015184	0.009000	0.001800	0.000529	0.000243	0.000138	0.000089	0.000062	0.000046

distance entre small cells d [m]	100

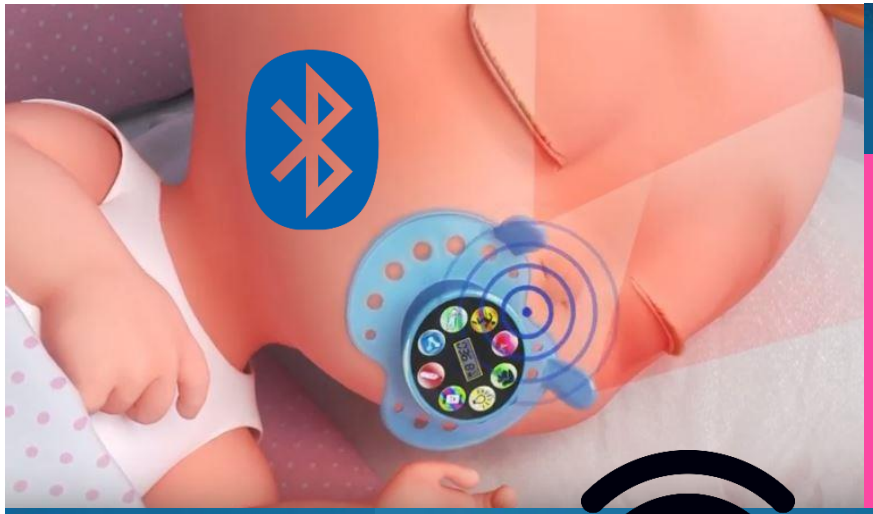
Data based on a [presentation by C. Törnevik (ERICSSON)](#)
then calculations with 19 sources on either side of source n°1

mmWave

Ericsson AIR 5121
28 GHz
512 antenna elements
8 beams
< 1 W total output power
24 dBi antenna gain
Beam steering: ± 60° (h), ± 15° (v)

ERICSSON

THE CRAZE FOR CONNECTED OBJECTS (OR CHILDREN?)!



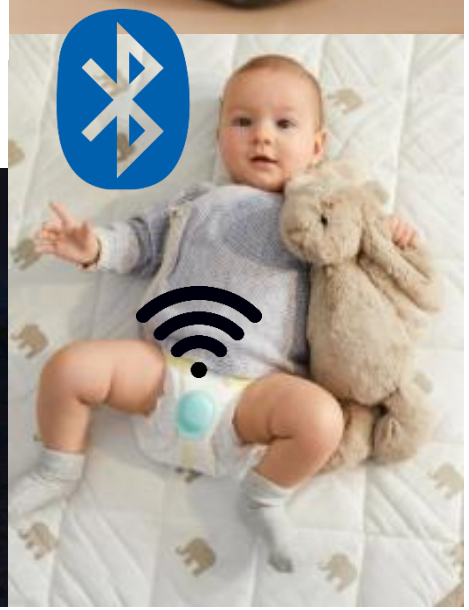
You always have full control over your baby's sleep, well-being and health.

Still Baby GmbH

Eschfeldstrasse 2
6312 Steinhausen
www.still.swiss

Phone: 041 741 60 48
E-Mail: info@still.swiss

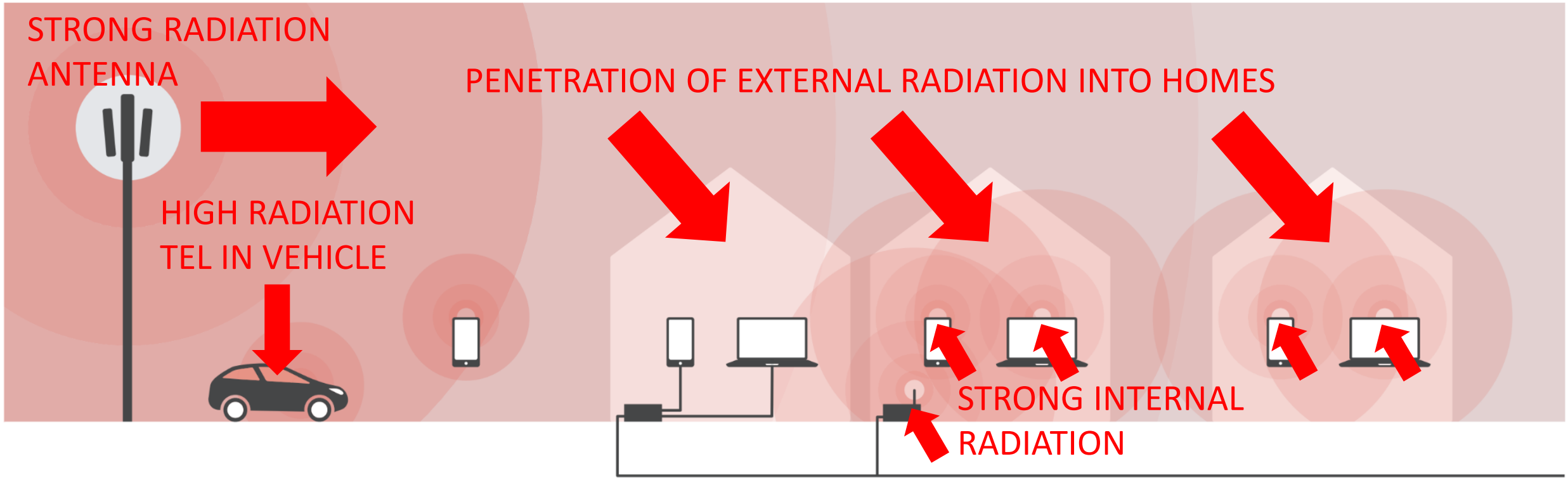
The nappy connected by Bluetooth! You'll be notified on your smartphone whether your baby is dry or not...
And, of course, the WiFi-connected cradle!



The Bluetooth-connected soother! With built-in camera, speaker, thermometer, heart rate monitor, etc...

CURRENT PROBLEMS WITH STRONG EXTERNAL ANTENNAS

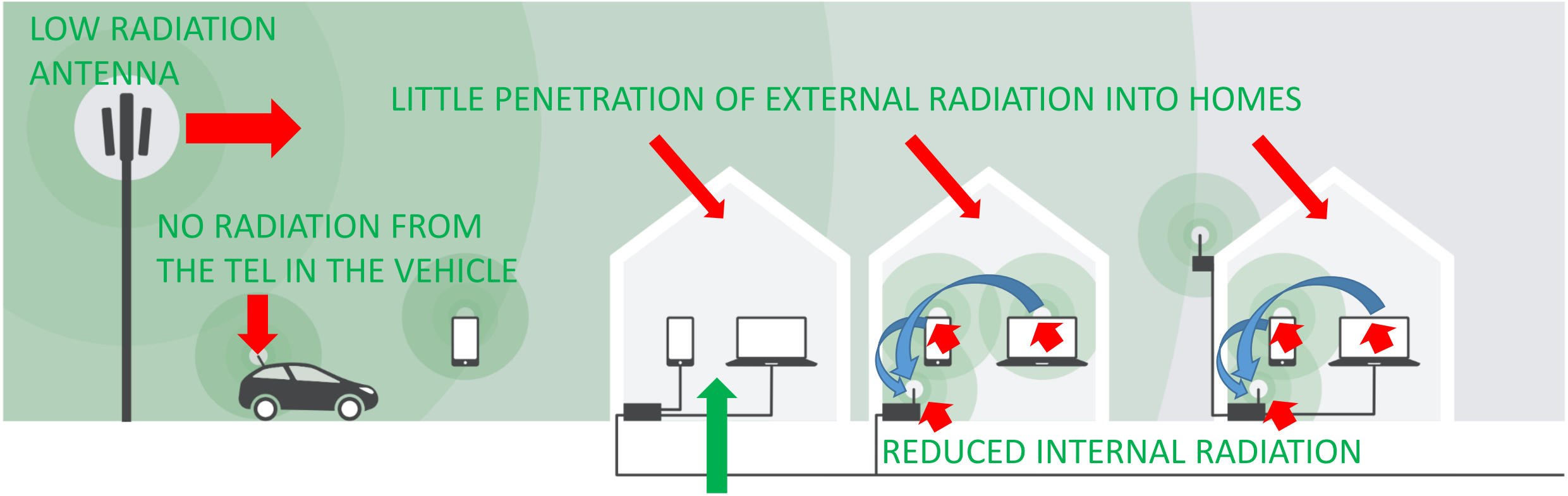
Irradiation des espaces d'habitation, de formation et de travail



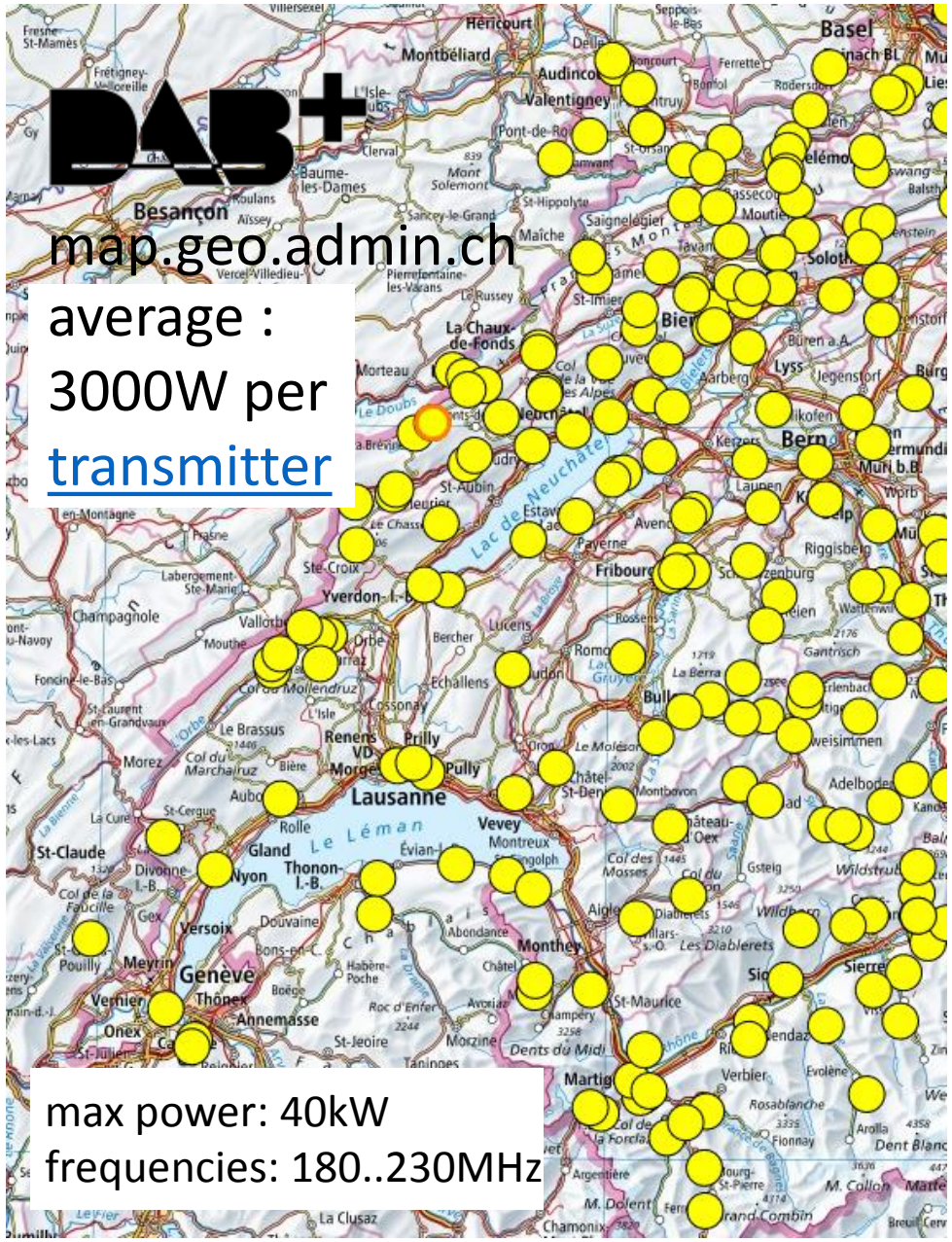
Appliances located **INSIDE** homes **connect to OUTSIDE antennas**, causing them to emit strong signals.
Technically, this is as absurd as trying to read a book at home using only the light from street lamps!

SOLUTION? WEAK INDOOR AND OUTDOOR ANTENNAS!

Séparation de la couverture réseau intérieure et extérieure



NOTE: a DAB+ RECEIVER does NOT send high frequencies!



Digital radio "DAB+" … another problem!

The Swiss Confederation is demanding that all FM radio transmitters in the country switch to the digital DAB+ format, which is more than **thirty times more biologically harmful** than FM. What's more, the power of DAB+ transmitters is being increased!

Tableau 3: Valeurs indicatives de précaution pour les rayonnements radioélectriques.

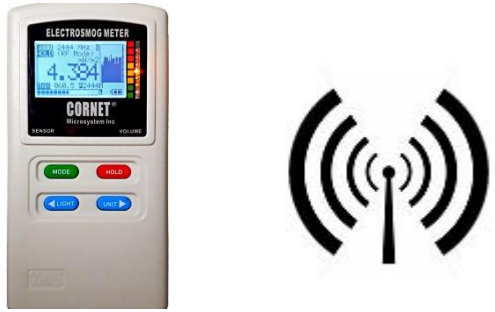
Source RF Peak Hold	Exposition de jour	Exposition de nuit	Populations sensibles[1)]
Emission radio (FM)	10'000 µW/m²	1000 µW/m²	100 µW/m²
TETRA	1000 µW/m²	100 µW/m²	10 µW/m²
DVBT	1000 µW/m²	100 µW/m²	10 µW/m²
GSM (2G) 900 à 1800 MHz	100 µW/m²	10 µW/m²	1 µW/m²
DECT (téléphone sans fil)	100 µW/m²	10 µW/m²	1 µW/m²
UMTS (3G)	100 µW/m²	10 µW/m²	1 µW/m²
LTE (4G)	100 µW/m²	10 µW/m²	1 µW/m²
GPRS (2.5 G) avec PTCCH* (8.33 Hz pulsation	10 µW/m²	1 µW/m²	0.1 µW/m²
DAB+ (10.4 Hz pulsation)	10 µW/m²	1 µW/m²	0.1 µW/m²
Wi-Fi 2.4/5.6 GHz (10 Hz pulsation)	10 µW/m²	1 µW/m²	0.1 µW/m²

TOLERANCE ÷ 30!

[EUROPAEM]

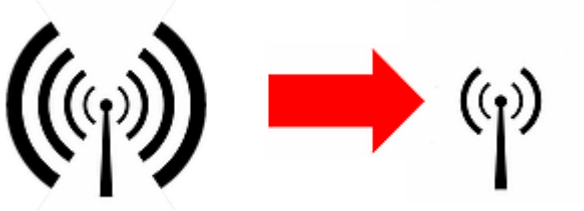
10'000µW/m2=2V/m, 1000µW/m2=0.6V/m, 100µW/m2=0.2V/m, 10µW/m2=0.06V/m

ELECTROSMOG... HOW CAN WE REDUCE IT?

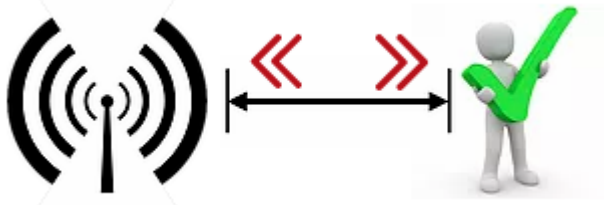


1. QUANTIFY EMISSIONS

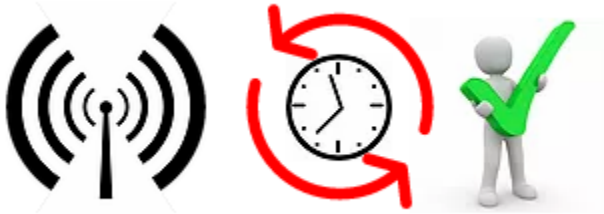
2. IDENTIFY EMISSIONS



3A. REDUCE INTENSITY



3B. INCREASE THE DISTANCE



3C. REDUCE TIME

GSM (2G)

UMTS (3G)

DECT TELEPHONE

WiFi

infos : www.electrosmogtech.ch/que-faire

Baby monitor

Modem

TV Box

SOME INTERNAL SOURCES OF ELECTROSMOG

EXAMPLES OF ELECTROSMOG MEASURING EQUIPMENT

Safe and Sound Classic 2

EMFields EMF Detector

CORNET ED88TPlus5G2

ESI-24

SND SOUND to identify the source

BF Electric and magnetic fields

HF High-freq. field 2G/3G/4G/5G/Wifi

AL Alarm when a level is exceeded

OTHER EQUIPMENT

geotellurique
Transformez l'invisible

WiFi : RECOMMENDED "ECO-WIFI" SOLUTION

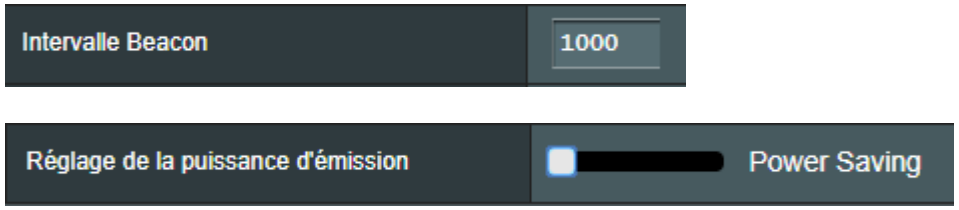
ASUS RT-AC51U 2.45GHz/5GHz Router

available, for example, from www.conrad.ch, 47 CHF
or **already set up** at www.jrseco.com, 99 CHF

Recommended: JRS Eco 100 D2 Full Eco WiFi router, which automatically switches off WiFi when not in use

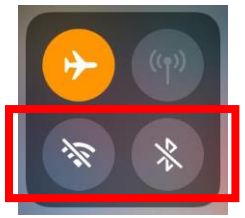
Setting the RT-AC51U in "ECO-WIFI" mode

- Connect the router to a computer via one of the of the yellow sockets on the back of the device.
- In an Internet browser type: http://router.asus.com
- Then program the following values:



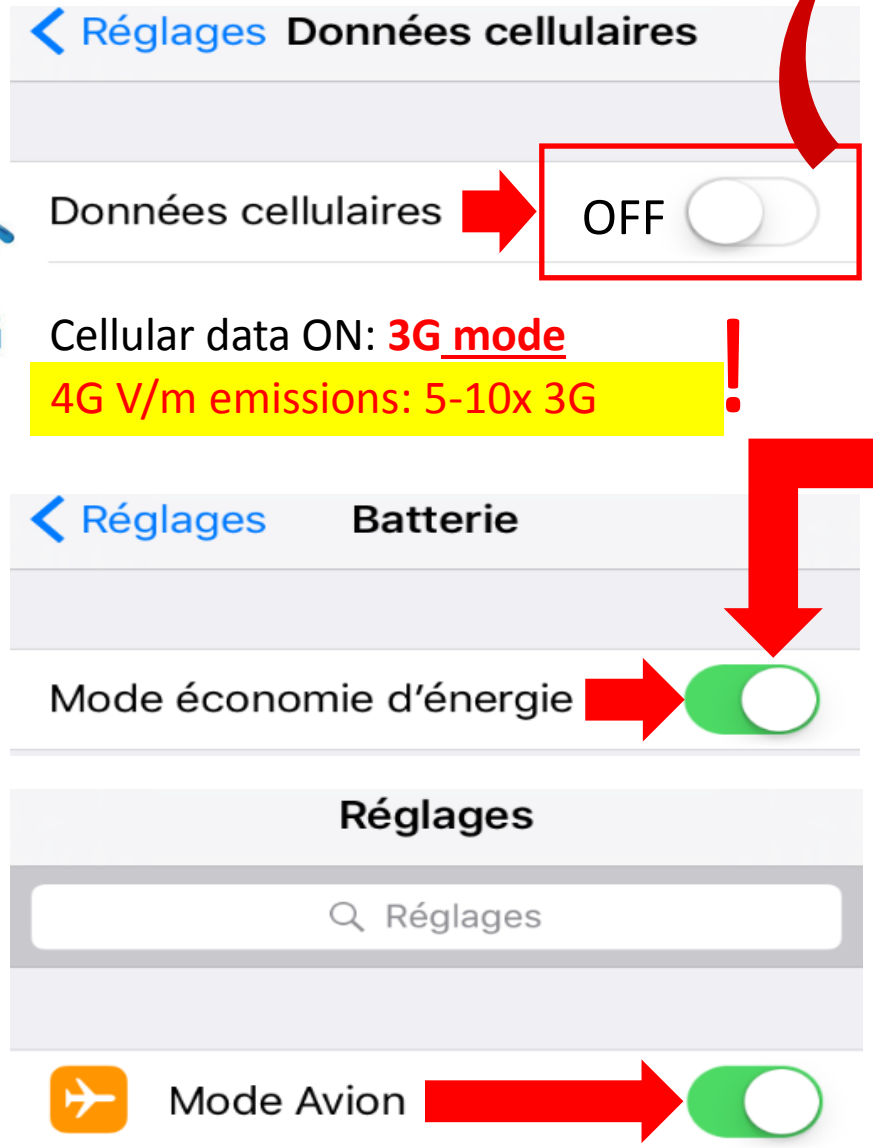
Useful information about WiFis can be found at https://www.electrosmogtech.ch/wifi-solutions
BEWARE of WiFi in schools! Document for schools available here

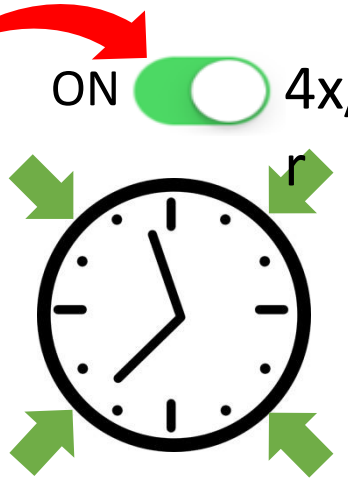
Mobile phone settings



WiFi/BT icons in BLACK !

Wired headphones or speakerphone mode





Be careful, you need to reactivate the "battery save" mode after each recharge!

Flight mode, mobile data etc...

WARNING ! On **iPhone**, the **flight mode** could **let WiFi or Bluetooth activated**, to be checked ! WiFi or Bluetooth icon appear then in **blue**.

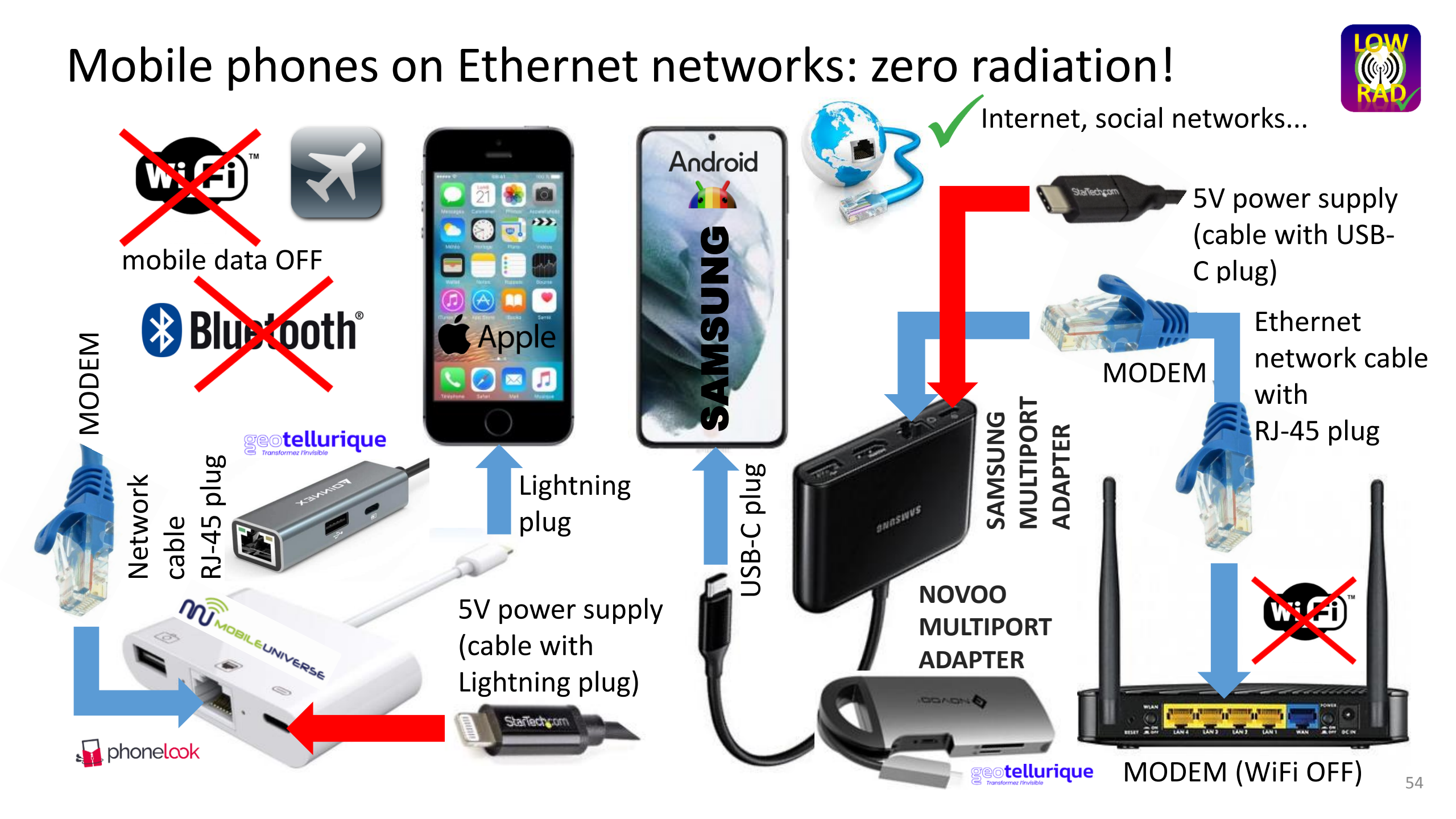
WiFi/BT icons in **WHITE** = **RF emission**

WiFi/BT icons in **BLACK** = **no RF emission**

And watch out for the "**intermediate mode**", displayed with a **white icon**. In this mode, the service concerned is NOT available, but **there is still an RF broadcast**!
You then need to **disable the service** in the **main settings** which will display "**not connected**" instead of "**no**".
When the service is **really deactivated**, the **icon is displayed in black**.
WARNING: if the localizing service in case of device loss is activated, the device will emit a signal every second WHEN IT IS OFF!

On **Android smartphones** (Samsung, Huawei, etc), **depending on the OS version**, **mobile data deactivation may not work**. The service is OFF, but **the RF transmission remains**! There's nothing you can do. It's even possible that **flight mode doesn't cut off RF emissions**... the phone's behaviour needs to be **checked with a measuring device**.
We've even **seen this behaviour changing**, sometimes it works, sometimes it doesn't...

Mobile phones on Ethernet networks: zero radiation!



Mobile devices on Ethernet networks: zero radiation!

iPhone

With **USB-C** connectivity, the NOVOO adapter has an HDMI video output for screen/TV.

Mains adapter 5VDC USB-A

File Lightning

Lightning plug

Network cable with RJ45 plug

iPad tablet

USB-A

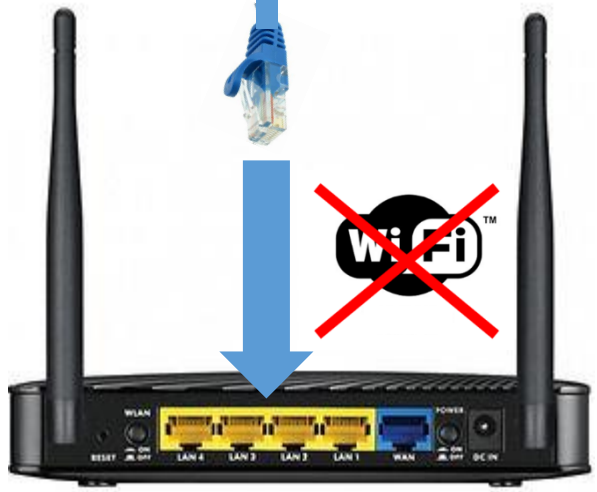
RJ45

geotellurique
Transformez l'invisible

FOINNEX Wired Ethernet Lightning Network Kit for iPhone, iPad

Wired keyboard

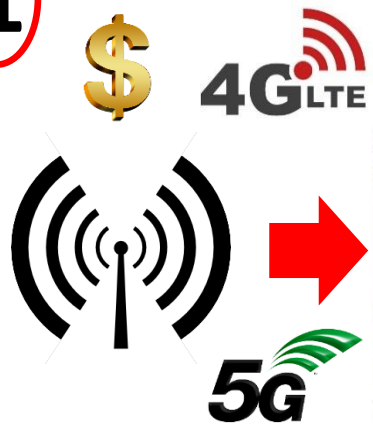
ZERO ONDES



MODEM (WiFi OFF)

WHAT TYPE OF CONNECTION?

1



"HOT SPOT

INTERNET

PSEUDO-MOBILE CONNECTION FOR **FIXED** USE

THIS SOLUTION **(1)** CONSUMES **A HUGE AMOUNT OF MOBILE DATA** AND JUSTIFIES THE DEPLOYMENT OF 5G

FIXED NETWORK (OPTIC FIBER OR CABLE) - ETHERNET CONNECTION

2

OR

PROBLEM: FIXED NETWORK ABO COSTS 2.5x MOBILE ABO!

MODEM

FIXED CONNECTION FOR **FIXED** USE

THIS SOLUTION **(2)** CONSUMES **NO MOBILE DATA** AND OFFERS **HIGH-SPEED BROADBAND**

RECOMMENDED USE OF MOBILE PHONE

- I use the **speakerphone function** to make calls.
- I use **wired headphones** to make calls.
- I put my phone **in my bag**.
- I keep my phone **at a distance**.
- **I don't** carry my phone with me when I can avoid it.
- **I deactivate mobile data** on my phone **as much as possible**.
  However, I can still be reached via the **normal telephone network** and by **SMS**.
- I only **activate WiFi** and/or **Bluetooth** when it's **strictly necessary** and **deactivate** them **completely** afterwards.
- I **prefer to** watch **videos** on my **wired** computer and **not** on my mobile phone
- I **avoid using** my phone on a **train**.

What kind of society are we heading for?

Data security problems with connected objects! The risks increase exponentially with the number of connected objects

5G opens the door to an ultra-connected, ultra-automated, ultra-monitored world

5G also opens the door to the Internet of Bodies (IoB) and to transhumanism, with modified humans integrated and interfaced with the mobile network.

Is this really the artificial world we want?

Reference links

- Press release from Physicians for the Environment: http://bit.ly/2OY7mat
- MfE ECOSCOPE 02/2020 review: http://bit.ly/3siDMuV
- EUROPAEM Guidelines 2016: http://bit.ly/30SUlBB
- Electrohypersensitivity (EHS) in Europe: http://bit.ly/3HzflTo
- IEEE Spectrum 24.07.2019: http://bit.ly/3bXkyFy
- BERENIS Newsletter Jan 2021: http://bit.ly/3lvcRtC
- SWISSCOM licence no. 2004/075583A1: http://bit.ly/3tzE9Sd
- Resolution n°1815 Council of Europe : http://bit.ly/3cFOFk4
- Bioinitiative 2012 report conclusions: http://bit.ly/30UK5sD
- EMF and Voltage Gated Calcium Channels: http://bit.ly/2QinpRc
- 11,000 pages of documents from the lawsuit against the FCC: http://bit.ly/3r1yuTj
- FOEN: Implementation aid for 5G adaptive antennas: http://bit.ly/3eZZgcn
- Letter to the municipality (SvS): http://bit.ly/3c52Rnv
- Letter to the cantons (SvS): http://bit.ly/3s5rWV5
- Letter of opposition to adaptive antennas: http://bit.ly/3rZi9in
- Letter from Prof. Hardell to the Federal Council: http://bit.ly/3lKOJmV
- **FR Associations: Robin des Toits, PRIARTEM, CRIIREM, AZB, etc.**

info-EMF
information on HF EM Fields
https://info-emf.ch

CONFERENCE

https://www.info-emf.ch/brochures

https://www.info-emf.ch/valeurs-limites

https://www.info-emf.ch/monitoring-fr

https://www.info-emf.ch/faq-fr

https://www.info-emf.ch/phonegate

https://www.stop5g.ch/5g-facteur-de-reduction

https://www.stop5g.ch/5g-et-antennes-adaptatives

https://www.gigaherz.ch

https://pierredubochet.ch

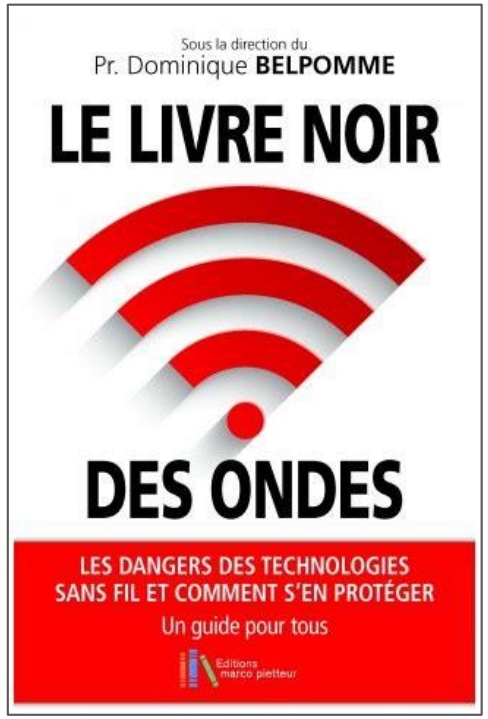
EHS-MCS: http://ehs-mcs.org

OFEV : Adaptive antennas 65394 : http://bit.ly/3cqx5ld

OFEV : Explanations concerning adaptive antennas 65389 : http://bit.ly/31DlmK1

Adaptive antennas: flyer for local authorities (SvS) http://bit.ly/3f6R6yA

BIBLIOGRAPHY
(in French)

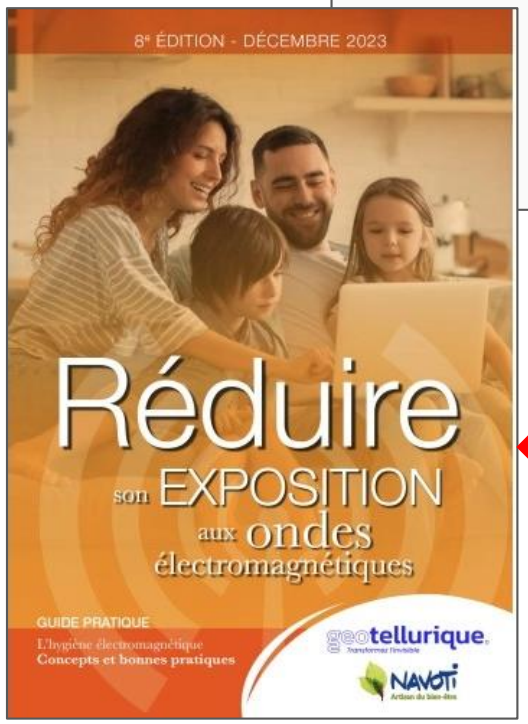


Practical guide

REFERENCE BOOKS (in French)

https://lelivrenoirdesondes.fr
https://www.ondes-expertise.com/livre-protection-ondes
https://editions-jouvence.com/livre/reduire-les-ondes-electromagnetiques-cest-parti

These books provide a wealth of explanations and practical information on how to protect yourself from EM waves.



A comprehensive 68-page guide

www.electrosmogtech.ch/presentations

Olivier Bodenmann, Dipl.-Ing. EPFL - olivier.bodenmann@gmail.com

PDF document for this conference : www.info-emf.ch/docs-conference-08-03-24 password « docsconf080324 »

APPENDIX

ELECTROSMOG CONSULTANTS
https://www.alerte.ch/fr/activit%C3%A9s/experts-conseils.html

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VALAIS : Benoît Bailleul (+41 79 616 97 17)
ZÜRICH : Peter Schlegel (+41 44 984 00 39)

Doctors in favour of the environment (MfE / AefU) : CP 111 - 4013 BASEL
Inquiries/counsel : +41 61 322 49 49 / E-mail: info@aefu.ch / Web : www.aefu.ch/

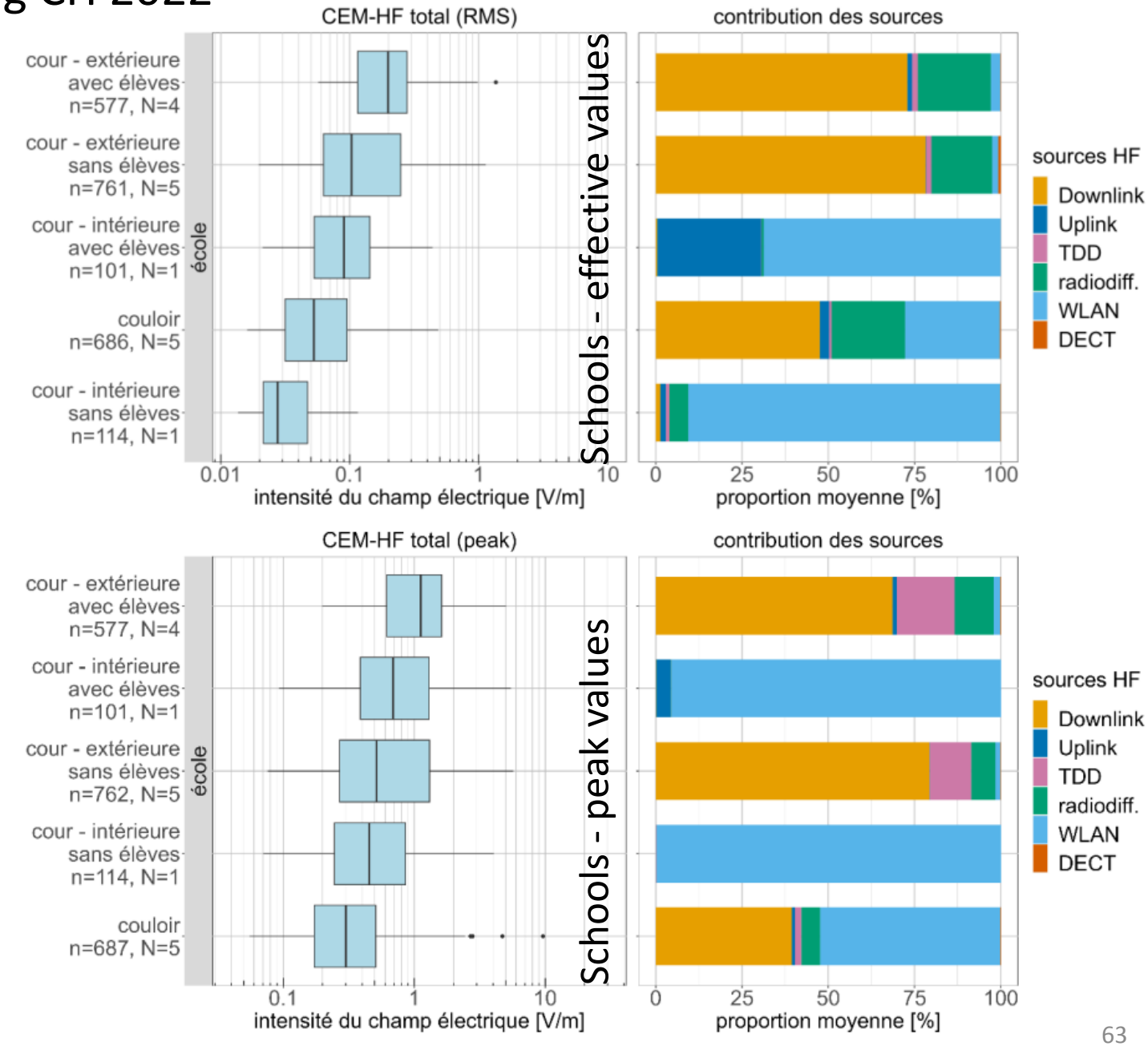
Monitoring CH 2022

III Données statistiques des mesures d'itinéraires

3.1.1 Aperçu général - Exposition aux HF

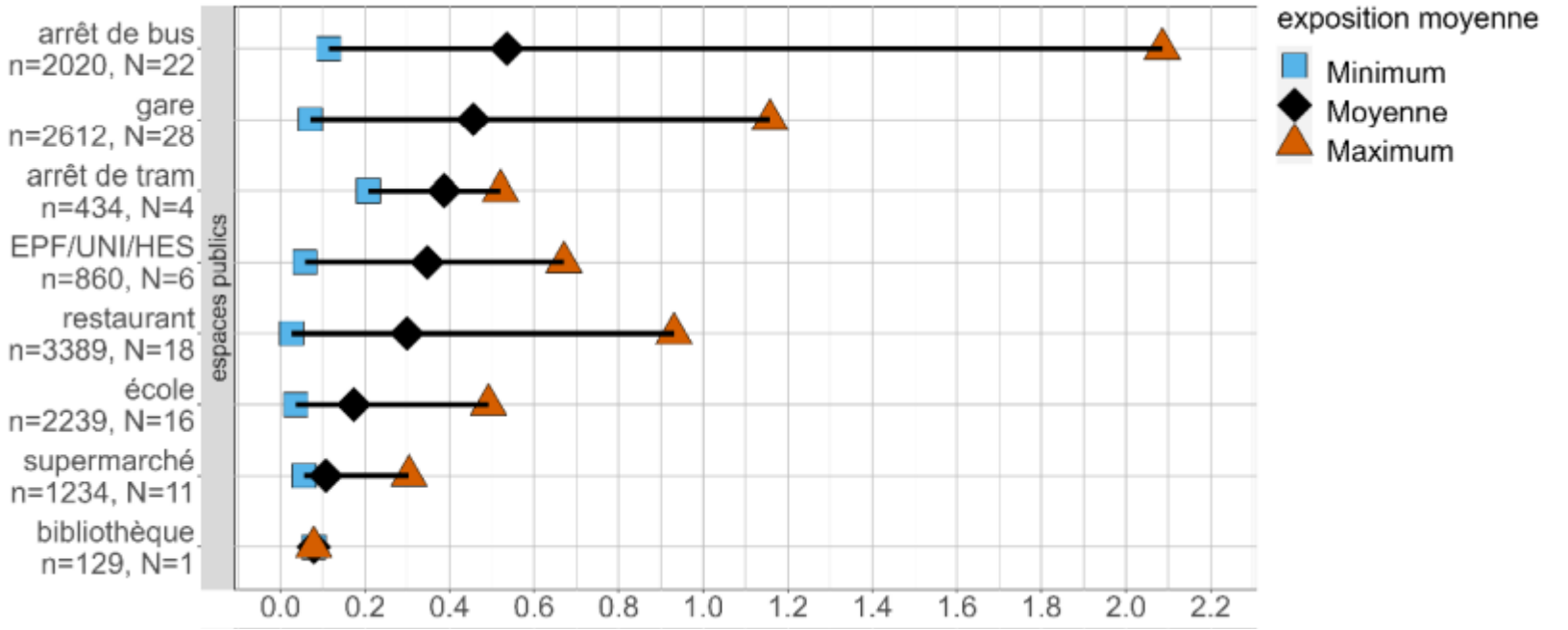
Tableau 14: Données statistiques (en V/m) de l'exposition totale aux CEM-HF (RMS). "n" désigne le nombre de points de données par type d'environnement de mesure. "N" désigne le nombre d'environnements de mesure du même type mesurés.

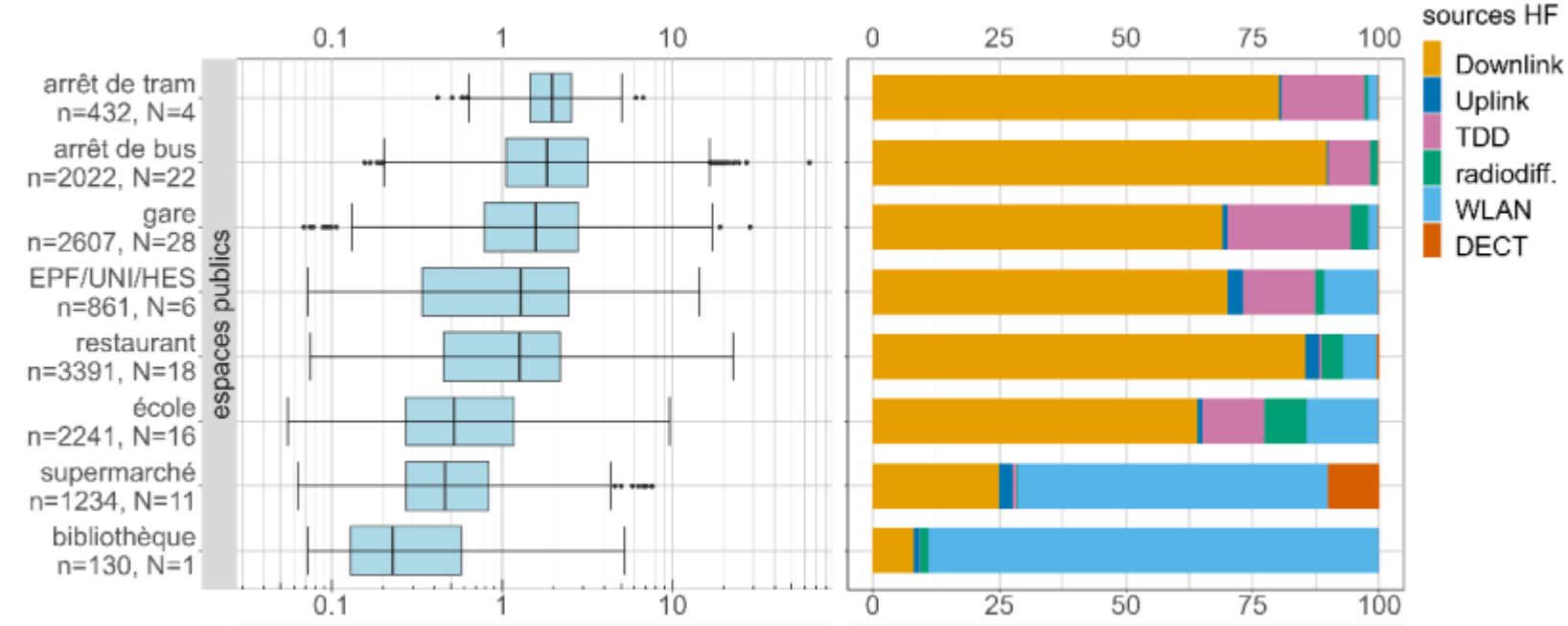
	Environnement de mesure	N	n	min	Q05	Q25	Médiane	Q75	Q95	max
Microenvironnements	Zone industrielle	14	2421	0.05	0.10	0.18	0.29	0.46	0.80	2.85
	Centre-ville urbain	10	1677	0.03	0.06	0.14	0.24	0.39	0.88	6.02
	quartier résidentiel central urbain	10	1617	0.02	0.06	0.12	0.20	0.34	0.69	3.66
	Zone de sport et de loisirs	4	659	0.08	0.10	0.13	0.17	0.22	0.40	1.40
	zone agricole*	9	1500	0.02	0.03	0.09	0.16	0.46	1.55	2.46
	centre-ville suburbain	21	3392	0.02	0.05	0.10	0.15	0.24	0.49	2.23
	quartier résidentiel non-central urbain	18	2987	0.02	0.04	0.09	0.15	0.26	0.51	2.08
	quartier résidentiel suburbain	29	4804	0.02	0.03	0.07	0.13	0.24	0.51	1.41
	quartier résidentiel rural	20	3178	0.01	0.02	0.05	0.10	0.19	0.45	2.21
	centre-ville rural	13	2072	0.02	0.03	0.05	0.08	0.13	0.28	0.84
	Zone naturelle	3	470	0.02	0.03	0.05	0.07	0.13	0.27	0.52
espaces publics	Environnement de mesure	N	n	min	Q05	Q25	Médiane	Q75	Q95	max
	Arrêt de tram	4	434	0.09	0.16	0.27	0.38	0.49	0.67	1.65
	Arrêt de bus	22	2020	0.05	0.11	0.21	0.35	0.49	1.21	10.39
	Gare ferroviaire	28	2612	0.02	0.07	0.17	0.29	0.52	1.12	3.53
	EPF/UNI/HES	6	860	0.02	0.03	0.05	0.23	0.49	0.84	1.37
	Restaurant	18	3389	0.02	0.04	0.08	0.20	0.49	0.91	6.11
	École	16	2239	0.01	0.02	0.05	0.10	0.21	0.43	1.36
	Supermarché	11	1234	0.02	0.02	0.04	0.06	0.11	0.26	1.06
	Bibliothèque	1	129	0.02	0.02	0.03	0.05	0.08	0.14	0.31
transport	Environnement de mesure	N	n	min	Q05	Q25	Médiane	Q75	Q95	max
	Metro	3	187	0.10	0.13	0.22	0.29	0.39	0.70	1.09
	Tram	97	787	0.05	0.10	0.17	0.24	0.36	0.62	1.42
	Train	7	26480	0.01	0.06	0.15	0.24	0.37	0.70	3.04
	Bus	57	5961	0.02	0.06	0.13	0.20	0.30	0.60	2.41
	Télécabine	2	141	0.03	0.03	0.06	0.12	0.18	0.26	0.33



Monitoring CH 2022 (2)

NOTE: Intensity indications are in V/m





International Journal of *Molecular Sciences*

https://pubmed.ncbi.nlm.nih.gov/33917298

MDPI

https://www.electrosmogtech.ch/documents

Review

Manmade Electromagnetic Fields and Oxidative Stress—Biological Effects and Consequences for Health

David Schuermann [1,*] and Meike Mevissen [2,*]

International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF)
Environmental Health (2022) 21:92
https://doi.org/10.1186/s12940-022-00900-9

Environmental Health

https://pubmed.ncbi.nlm.nih.gov/36253855

COMMENT Open Access

Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G

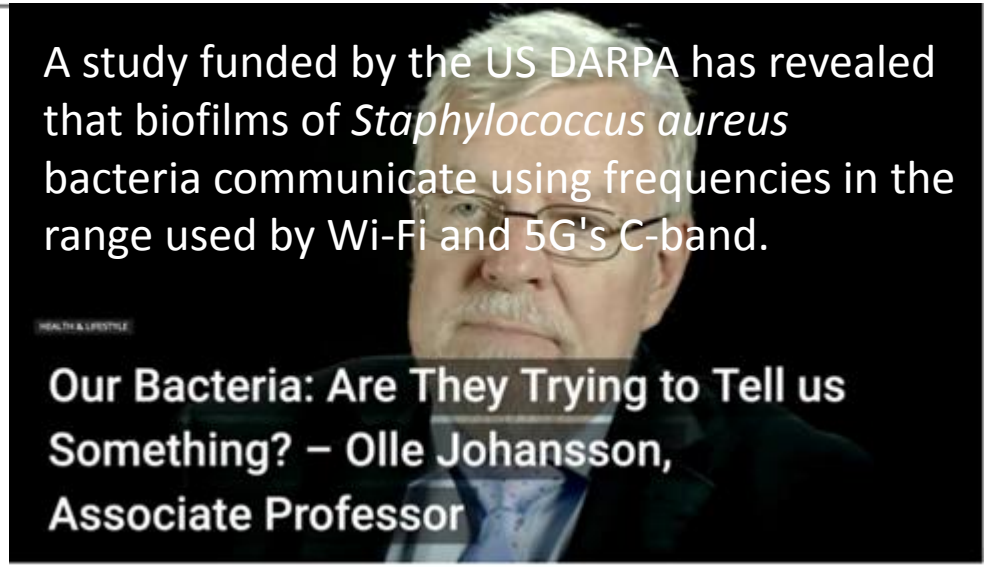
International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF)*

https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS_STU(2021)690012_EN.pdf

European Parliament

Health impact of 5G

Current state of knowledge of 5G-related carcinogenic and reproductive/developmental hazards as they emerge from epidemiological studies and in vivo experimental studies



https://ieeexplore.ieee.org/abstract/document/9771271

BioInitiative 2012

A Rationale for Biologically-based Exposure Standards for Low-Intensity Electromagnetic Radiation

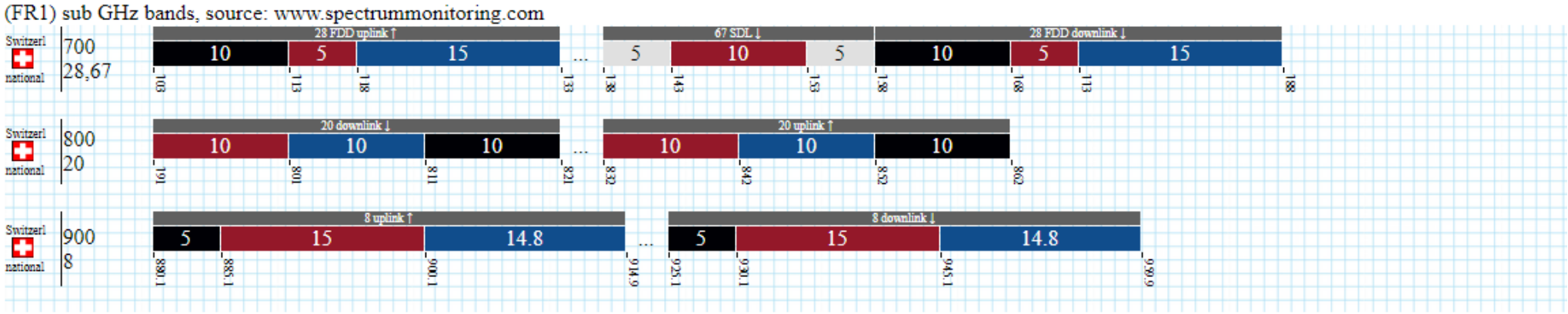
1971 US NAVY STUDY

Naval Medical Research Institute

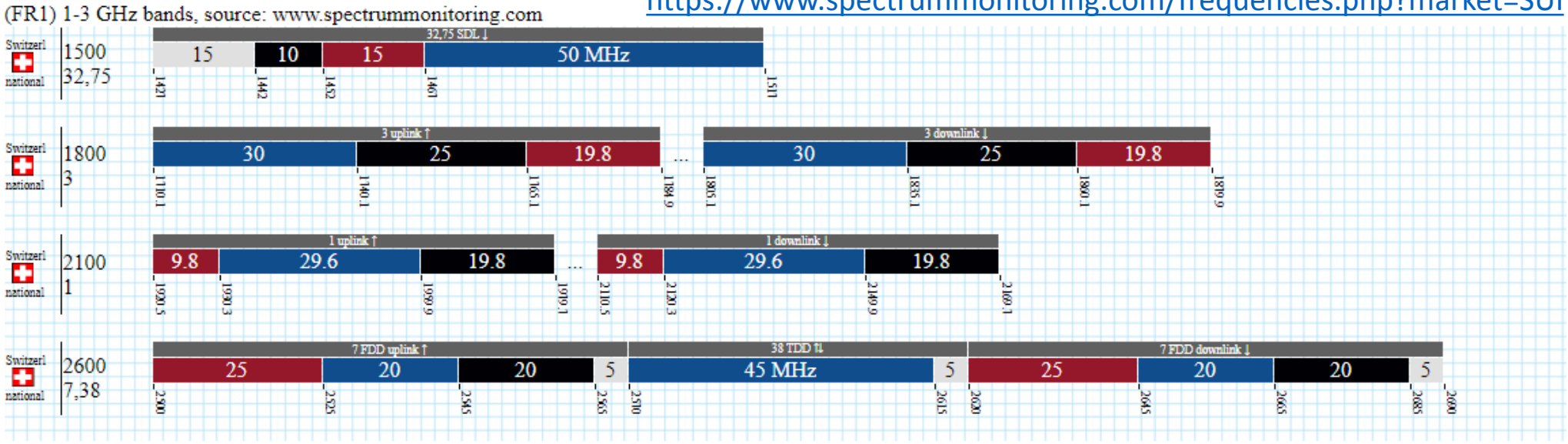
ENVIRONMENTAL HEALTH TRUST

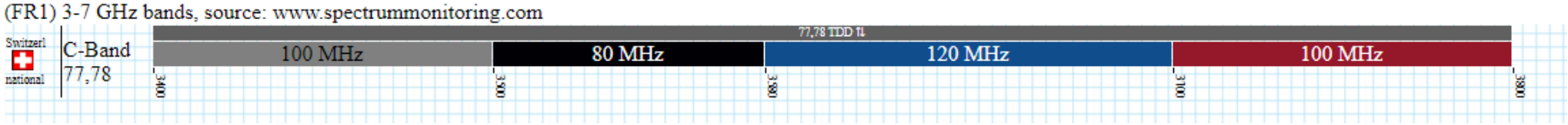
Compilation Of 30 Research Studies On Cell Tower Radiation And Health

FREQUENCY BANDS BY OPERATOR (SWITZERLAND)



https://www.spectrummonitoring.com/frequencies.php?market=SUI





Salt

Sunrise

Swisscom

not allocated

Europeans for Safe Connections
https://esc-info.eu/en

ESC is an alliance of European organisations that strives to reduce the impact of modern communications and electricity use on health and the environment. We are not against technology, but we are pro safe technology and safe connections.

Wireless radiation is neither safe nor healthy

ESC wants to

Support education of the society about the adverse effects of RF EMF on living organisms and about solutions. And stimulating the debate on the subject.

Support and encourage scientific research into the effects of RF EMF on living organisms.

Pursue better regulations on RF EMF and coordinate common interests and activities mainly towards the EU institutions and related authorities in Europe.

Share valuable information about research projects, studies, results from scientific bodies and other important institutions in the area of RF EMF.