

International Technical Workshop on 5G and EMF Exposure for administrations

Dr Emilie van Deventer

Radiation Programme

Dept of Public Health, Environmental and Social Determinants of Health

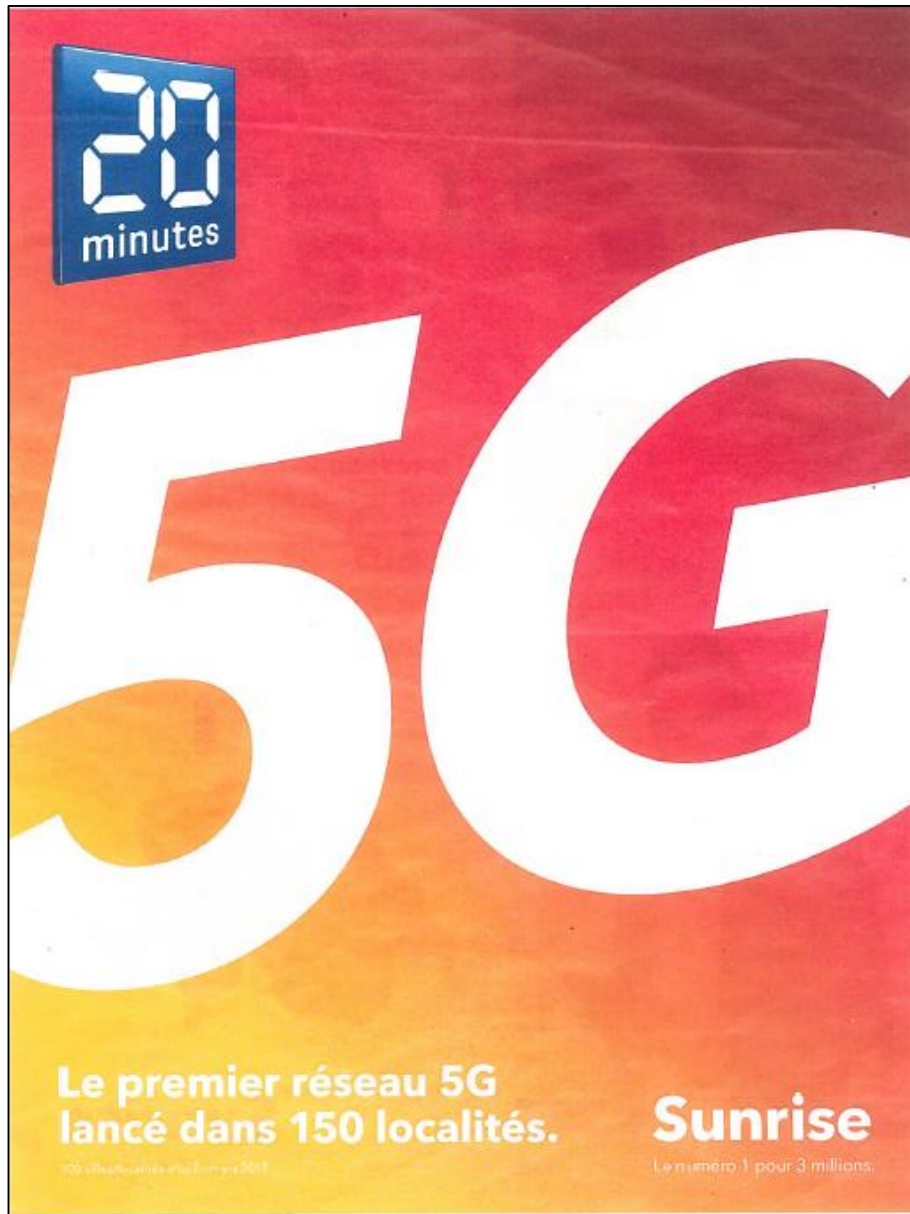
Maisons-Alfort, France, 17 April 2019

The World Health Organization



- Established on **7 April 1948**
- **Function:** act as the UN directing and coordinating authority on international health work
- **Objective:** attainment by all peoples of the highest possible level of health





20
minutes

5G

**Le premier réseau 5G
lancé dans 150 localités.**

Sunrise
Le numéro 1 pour 3 millions.

© Sunrise Suisse et Sunrise 2017



5G

**Le réseau le plus moderne
pour la Suisse d'aujourd'hui.**

FIRST ON 5G Sunrise travaille intensivement à la mise en service du réseau le plus moderne de Suisse, même à la campagne aussi: fin mars déjà, 150 localités seront couvertes par notre réseau ultrarapide 5G, et ce nombre augmentera chaque jour. Vous trouverez sur sunrise.ch/5g la date à laquelle vous pourrez profiter, chez vous, du débit accru et des possibilités supplémentaires de la 5G grâce à Sunrise.



Sunrise
Le numéro 1 pour 3 millions.

Questions

- **What exposures are expected?**
 - From the wireless networks?
 - From the devices?
- **What is known about potential health effects?**



About 82.500.000 results (0,43 seconds)

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Environmental Health Trust 5G and the IOT: Scientific Overview of ...

<https://ehtrust.org/key.../cell.../5g-networks-iot-scientific-overview-human-health-risks...> ▼

5G is intended to be the **technology** that allows the Internet of Things (IOT) to ... for a moratorium on
the roll-out of **5G** citing the serious risks that to human **health** ...

People also ask

Is 5g technology dangerous? ▼

How does 5g affect the body? ▼

Is 5g radiation dangerous? ▼

What is 5g technology and how it works? ▼

[Feedback](#)

EU 5G Appeal – Scientists warn of potential serious health effects of ...

<https://www.jrseco.com/european-union-5g-appeal-scientists-warn-of-potential-serious...> ▼

4 days ago - They therefore ask the European Commission to postpone the expansion of the **5G**
network "until the potential risks to human **health** and the ...

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Literature search results

55 articles were found.

The following terms were included: 5G, "fünfte Mobilfunk-Generation", "fifth generation of mobile communications"

Modify search ▾ Items per page 10 ▾ Order by Year (newest to oldest) ▾

2019, *Shikhantsov S, Thielens A, Vermeeren G, Tanghe E, Demeester P, Martens L, Torfs G, Joseph W*

Hybrid Ray-Tracing/FDTD Method for Human Exposure Evaluation of a Massive MIMO Technology in an Industrial Indoor Environment.

[\[tech./dosim.\]](#)

IEEE Access 7: 21020 - 21031

2019, *Kaburcuk F*

Effects of a brain tumor in a dispersive human head on SAR and temperature rise distributions due to RF sources at 4G and 5G frequencies.

[\[tech./dosim.\]](#)

Electromagn Biol Med: 1-9 [in press]

2019, *Chiaromello E, Bonato M, Fiocchi S, Tognola G, Parazzini M, Ravazzani P, Wiert J*

[\[details\]](#) Radio Frequency Electromagnetic Fields Exposure Assessment in Indoor Environments: A Review. [\[review\]](#)

Int J Environ Res Public Health 16 (6): E955

2019, *Pawlak R, Krawiec P, Żurek J*

On measuring Electromagnetic Fields in 5G technology. [\[tech./dosim.\]](#)

IEEE Access [in press]

2019, *Xu B, Zhao K, Ying Z, Sjöberg D, He W, He S*

Analysis of Impacts of Expected RF EMF Exposure Restrictions on Peak EIRP of 5G User Equipment at 28 GHz and 39 GHz Bands. [\[tech./dosim.\]](#)

IEEE Access 7: 20996 - 21005

2019, *Carlberg M, Hedendahl L, Koppel T, Hardell L*

High ambient radiofrequency radiation in Stockholm city, Sweden. [\[tech./dosim.\]](#)

HEALTH

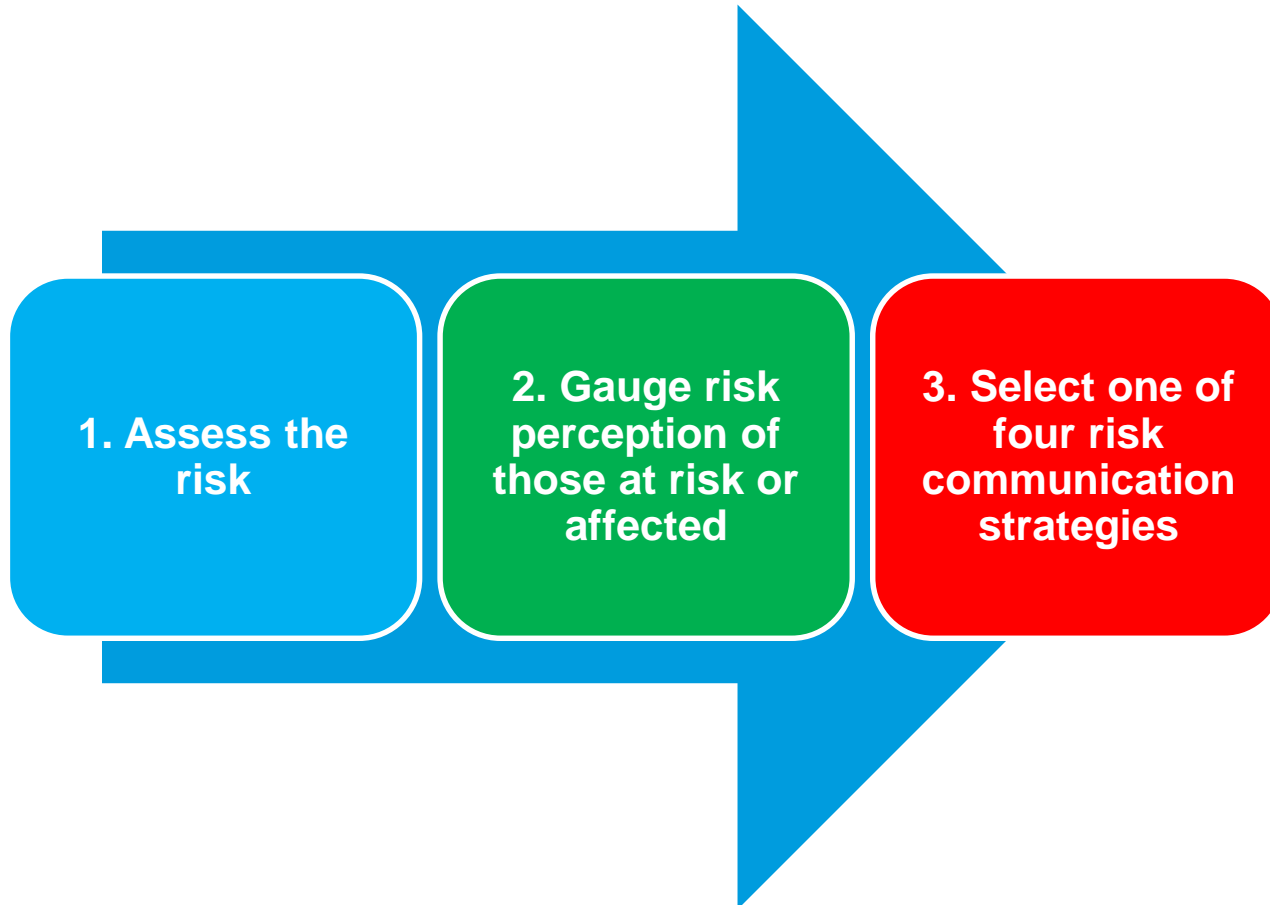
a state of COMPLETE
physical, mental and
social well-being and
not merely the
ABSENCE of disease or
infirmity"

(Constitution, 1948)

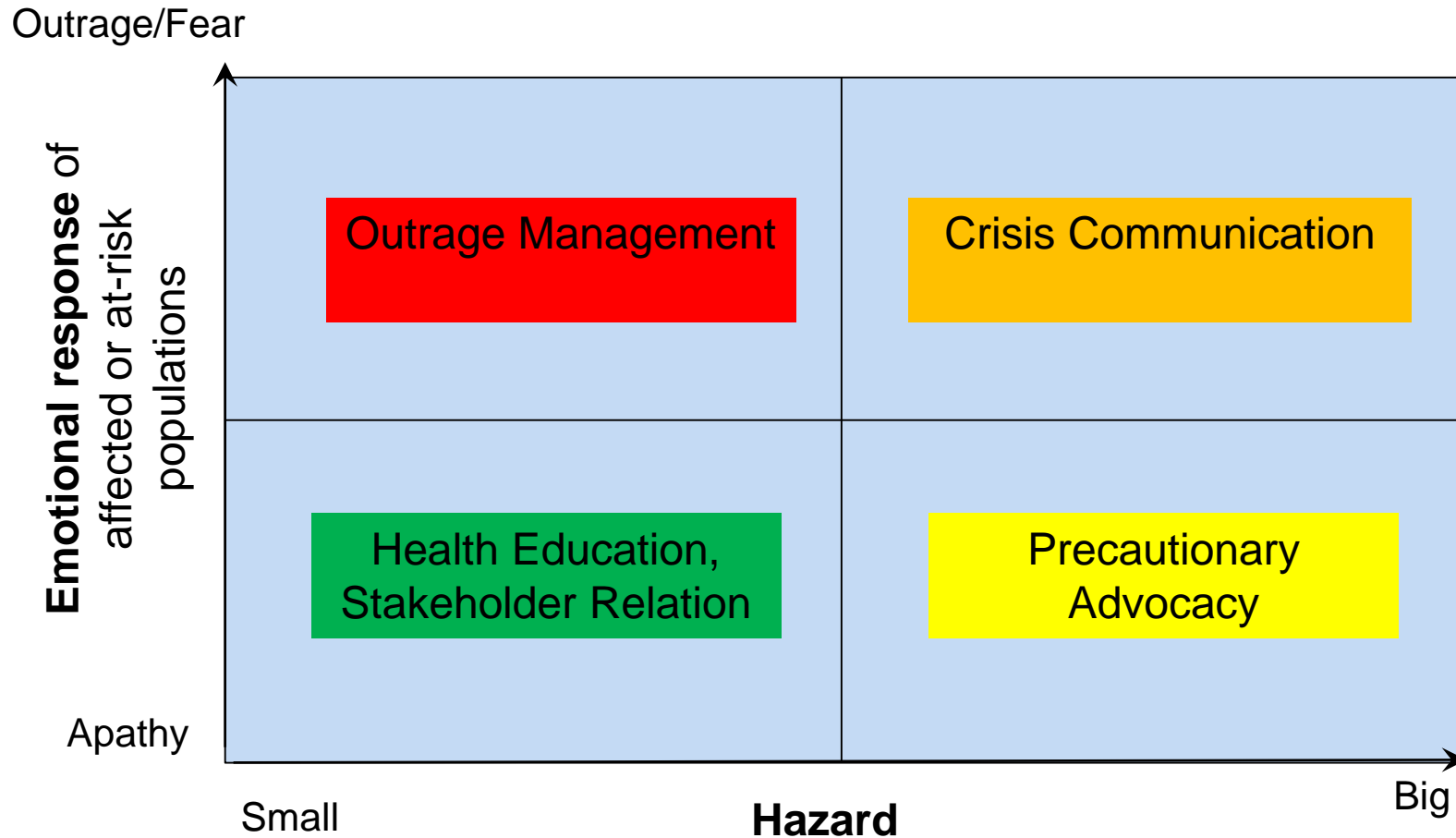
Questions

- **What exposures are expected?**
 - From the wireless networks?
 - From the devices?
- **What is known about potential health effects?**
- **What is being done by governments to handle the (risk) communication aspects?**
- **What is being done by manufacturers/operators to handle the (risk) communication aspects?**
- **Are stakeholders involved in a dialogue?**

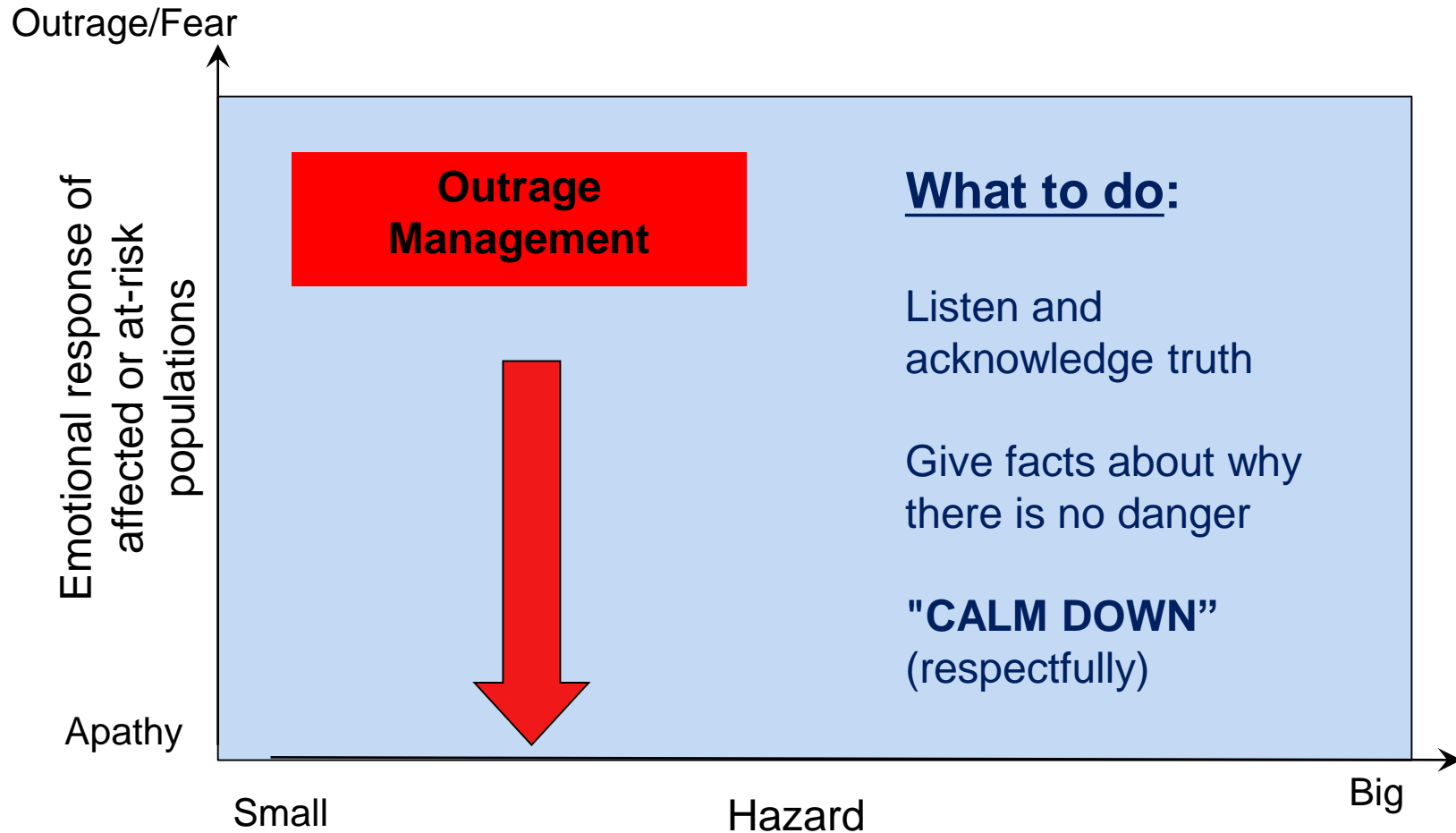
How do we select the best risk communication strategy?



Risk communication strategies



Strategy 2: Outrage management



Source: Peter Sandman



TECHNOLOGIE

Genève adopte une motion pour un moratoire sur la 5G

La motion adoptée mercredi invite le Conseil d'Etat à demander à l'OMS de piloter des études scientifiques indépendantes pour déterminer les effets nocifs de la 5G

2 minutes de lecture

Suisse 4.0
Technologies
Téléphonie

ATS
Publié jeudi 11 avril 2019 à
06:14, modifié jeudi 11 avril
2019 à 11:03.

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The World Health Organization



The
Global
Guardian
of Public
Health



"Health is a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity"

WHO's Constitution (1948)