

Title of file: Summons in interlocutory proceedings Stop5GNL v. the Dutch State

(Title of file in Dutch “Dagvaarding in kort geding Stop5GNL versus de Nederlandse Staat”).



Stop5GNL

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SUMMONS IN SUMMARY PROCEEDINGS

Today, the twenty-two at the request of **Stop5GNL Foundation**, having its registered office in Amsterdam and its principal place of business at 9977 PK Kloosterburen, Marneweg 2, who in this case is domiciled at the office address of H.H.T. Beukers and X.P.C. Wynands, having its principal place of business at 5611 CE Eindhoven, Vestdijk 76 (P.O. Box 2342, 5600 CH Eindhoven), which the plaintiff declares to be lawyers and who will act as such in legal proceedings;

by order of the Interim Injunction Judge of the District Court of The Hague, who, after submitting a draft of this summons, has set a day and hour for the hearing in interim relief proceeding,

Summoned in preliminary relief proceedings

In summary proceedings the legal entity under public law, the **State of the Netherlands** (Ministry of Economic Affairs and Climate), having its registered office in The Hague, which in this case has explicitly elected domicile at the offices of S.M. Kingma (Pels Rijcken & Droogleever Fortuijn NV), having its registered office in 2594 AC The Hague at Bezuidenhoutseweg 57, has left a copy of this summons (excluding productions, which will be brought into the proceedings at a later date) at that address:

To

appear in person or represented by an attorney at law on Tuesday, the twenty-first of April two thousand and twenty (21-04-2020), at half past eleven (11:30 a.m.) at the hearing of the Interim Injunction Judge of the District Court of The Hague in the court building at Prins Clauslaan 60 in (2595 AJ) The Hague.

With the notification, that:

- if a defendant does not appear in person or represented by an attorney at law on the date stated or on a date specified by the Interim Injunction Judge and the prescribed terms and formalities have been observed, the Interim Injunction Judge will give notice of default against this defendant and grant the claims, unless these claims appear to him or her to be unlawful or unfounded;
- if there are several defendants and at least one of the defendants in the proceedings appears and the prescribed time limits and formalities have been observed, one judgment will be rendered between all parties, which will be considered to be a judgment on appeal,
- if a defendant in the proceedings appears, a court registry fee will be levied, under penalty of default, to be paid within four weeks from the time of appearance,
- if there are several defendants who appear before the same attorney at law in the proceedings and who draw the same conclusions, a joint court fee will be levied only once,
- the amount of the court fees is stated in the most recent appendix to the Dutch Civil Cases Court Fees Act (Wet griffierechten burgerlijke zaken), which can be consulted at <http://www.kbvg.nl/griffierechtentabel> among other places;
- a court duty for insolvent persons established by or pursuant to the law is levied if, at the time the court duty is levied, the insolvent person has submitted a copy of the decision to add, as referred to in Section 29 of the Legal Aid Act,

or, if this is not possible due to circumstances beyond his reasonable control, a copy of the application as referred to in Section 24, paragraph 2, of the Legal Aid Act, or a statement from the Board of the Legal Aid Board as referred to in Section 7, paragraph 3 (e), of the Legal Aid Act showing that the income does not exceed the income referred to in the Order in Council by virtue of Section 35, paragraph 2, of that Act.

To

respond to the demand contained in this subpoena and the grounds for it.

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Description of the dispute

1. Plaintiff ("Stop5GNL") opposes the 'rollout' of the fifth generation mobile networks (5G), intended or facilitated by defendant, the State, because insufficient (sound) scientific research has been conducted by or on behalf of the State into the (harmful) health effects thereof, while (among other things) many independent scientific studies show convincing indications of serious and permanent damage to health. The plaintiff seeks a ban on the - simplified - roll-out of 5G and cooperation with it until independent scientific research shows that this does not involve any real health risks.

Stop5GNL

2. Stop5GNL acts as a foundation (interest group) for the protection of the health of Dutch residents in general and in particular in connection with (electromagnetic) fields. It tries to achieve this goal by, among other things, fighting - in and out of court - against health risks as a result of (electromagnetic) fields, including 5G. The articles of association of Stop5GNL are submitted as **production 1**. Article 2 of the statutes concerns the description of the objective:

Goal

Article 2

2.1 The aim of the foundation is to protect and promote the health of all Netherland residents in general and, in particular, in connection with electromagnetic fields.

2.2 The foundation tries to achieve its goal by, among other things:

a). the provision of information on information harmful to health environmental factors in general and electromagnetic factors in particular,

b). the in and out straight against health risks such as (electromagnetic fields 5G and anything related or conducive to the foregoing in the broadest sense of the word.

2.3 The foundation does not aim to make a profit.

3. In these proceedings, Stop5GNL pursues its statutory objective by challenging the roll-out of 5G in the Netherlands, which is harmful to public health. Stop5GNL may therefore bring the claims on the basis of Section 3:305a of the Dutch Civil Code.

Competence civil court

4. Stop5GNL opposes a breach by the State of treaties, laws and what, according to the unwritten law, is customary in society. Stop5GNL bases its claim on a wrongful act.

5. If and insofar as the State would argue that Stop5GNL should be declared inadmissible by the civil court in the claim because of the proper division of duties between the administrative court and the civil court, Stop5GNL argues the following.

6. As is clarified in this summons, the State will not take a single decision for the roll-out of 5G as referred to in the General Administrative Law Act against which an appeal can be lodged with the administrative court. Nor is there any question of a choice in principle as a legal act under public law that is initiated by means of a generally binding regulation, against which a good objection could then be lodged with the administrative court in an individual case by way of exception.¹

7. Stop5GNL is concerned with combating the State's choice of principle for the roll-out of 5G (at least its role in this). This choice is unlawful, partly because insufficient attention has been paid by the State to and research has been conducted into the adverse health effects of a national 5G network. It is precisely this detrimental aspect that does not form part of the statutory frameworks that exist for

Footnotes.

¹HR 22 May 2015, ECLI:NL:HR:2015:1296, JB 2015/125 m.nt. J.J.J. Sillen

taking the many implementing decisions that need to be taken in order for a national 5G network to become a reality.

8. Examples of the implementing decisions mentioned are the implementing decisions taken by the States on 5 December 2019 consultation initiated by the State Secretary for Economic Affairs and Climate (EZK) for the auction of frequencies for fast mobile communications such as 5G.² According to the website (see footnote 2), the consultation concerns all the arrangements, decisions and decrees necessary for the implementation of that auction. However, a more in-depth look at the draft Regulation on the application and auction procedure for licences 700, 1400 and 2100 MHz, as well as at the underlying legal framework (the 2013 Frequency Decree), reveals that the question of the effects on public health is not part of the assessment framework. On the contrary, the assessment framework ensures that the choice in principle of roll-out of 5G does not even need to be included in the regulations, decisions and decisions under consultation. What is subject to consultation concerns only the 700, 1,400 and 2,100 MHz band in which frequency space is permitted and, in that connection, the financial position and other '(legal) personality characteristics' of the applicant for the purpose of the auction, with which the auction involves an economic interest of the State of €0.9 billion.

9. Whereas for the decision to auction the frequency bands necessary for 5G the health interest in relation to the choice in principle for the roll-out of 5G does not play a role, the same applies to the subsequent licences to be granted that these licences only relate to part of that choice in principle, i.e. which frequency space will be available in which frequency band. The fact that part of the health interest may be involved (i.e. via the field strength provision³ in the licences) does not alter the fact that these licences do not substantively address the issue of the frequency band

Footnotes.

²<https://www.internetconsultatie.nl/multibandveiling> .

³See Requirement 5 of Article 4 of the licence to be granted K paired 700 Mhz: *'The field strength shall be calculated on the basis of the calculation method for mobile use included in the current HCM agreement. HCM Agreement means the Agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia and Switzerland on the coordination of frequencies between 29.7 MHz and 43.5 GHz for the fixed service and the land mobile service.'*

advantages and disadvantages of a nationwide 5G network considered in isolation. That is to say, it does not address the wider context of 5G outside the specific frequency band covered by the licence. Furthermore, in each case, the licence covers only a geographical part of the country. Taking this into account, it is impractical for individual citizens, but also for a foundation such as Stop5GNL, which represents the collective interest of residents in the Netherlands, to have to litigate against 26 permits in order to combat a fundamental choice of the State. Leaving aside the question whether individual citizens and/or Stop5GNL have a direct public interest in the permits at all.

10. It is important to further understand the implementing decrees in relation to the choice of forum, is that 26 permits and an auction together are still not all the pieces that make up the 5G puzzle. This is because environmental permits are also required for various types of activities as referred to in Articles 2.1 and 2.2 of the Environmental Law (General Provisions) Act, which permits relate to the much larger network of antennas that will be required in the Netherlands to cover a 5G network, in which permits must always be assessed from a spatial planning perspective to determine whether an antenna is suitable for a specific location. It is impracticable to have to deal with all environmental permits.

11. In view of the above, in order to combat a choice in principle for the roll-out of a national 5G network, Stop5GNL only has the option of having the civil court impose an injunction on the State on the grounds of tort to further 'roll out' 5G until it has been demonstrated to the best of scientific knowledge that this will certainly not cause irreparable damage to public health.

Urgent importance

12. The next step in the roll-out of 5G, which Stop5GNL is opposed to, is the auctioning by the State of the radio frequencies intended for 5G. This auction is planned for the beginning/middle of 2020, where exact dates are unknown. The consultation of the auction conditions has recently been completed.⁴ Frequencies shall be auctioned for, in principle, 20 years. Once the frequencies have been allocated to telecom providers, the consequences will be irreversible, or at least telecom providers will be able to derive rights from licences obtained and further implement and fill in the roll-out of 5G. An immediate provision in stock in order to stop (the State contributing to) the roll-out of 5G is therefore necessary on the eve of the frequency auctions.

Introduction to mobile networks, electromagnetic radiation and 5G

Electromagnetic fields and radiation

13. A network of antennas enables people to communicate digitally with each other (e.g. calling, apping and surfing the Internet). The antennas transmit wireless signals, which are called radio frequency electromagnetic fields. The National Institute for Public Health and the Environment (RIVM) uses the term radio frequency electromagnetic fields or non-ionising radiation for this purpose.⁵

14. An electromagnetic field consists of electric and magnetic waves that move together. When electromagnetic waves travel at low frequencies, the term electromagnetic fields is used in scientific circles. These are fields of 50 Hertz (Hz; the unit of frequency; one Hz is one oscillation per second) to 300 Gigahertz (GHz; 1 billion Hz). If the electromagnetic waves have a high frequency (more than 300 GHz),

Footnotes.

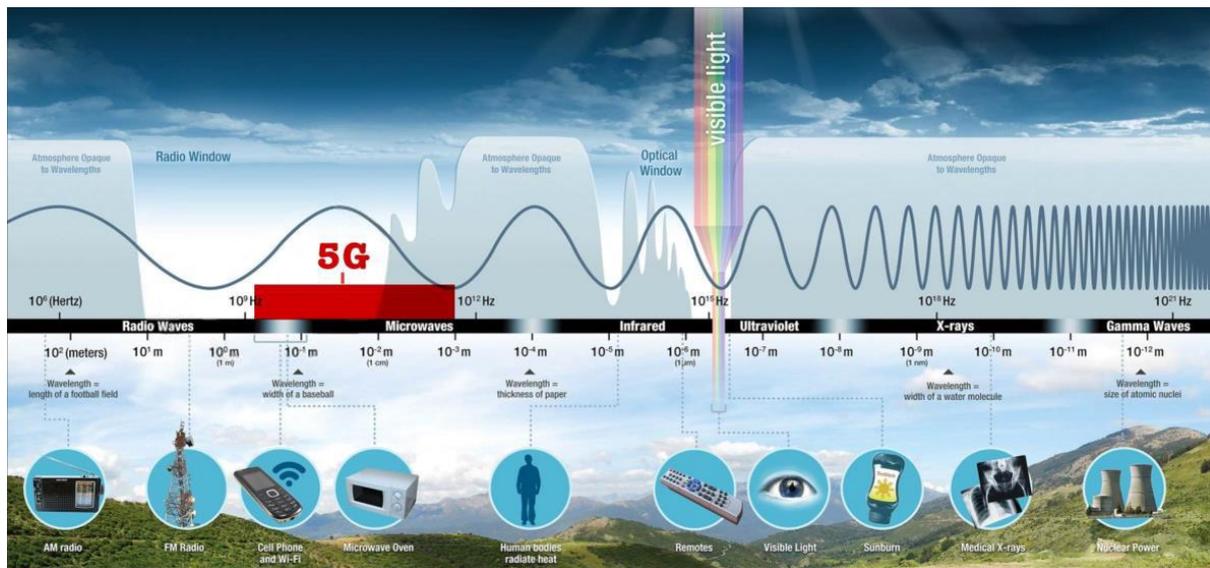
⁴ <https://www.internetconsultatie.nl/multibandveiling> .

⁵ RIVM report 609300024/2011.

it is called electromagnetic radiation in science. In common parlance one also speaks at lower frequencies of 'radiation' or 'transmitter radiation'.

15. Electromagnetic fields cover a broad spectrum from Extremely Low Frequency (ELF) fields to Radio Frequency (RF) radiation. ELF fields are often associated with the electricity network and the use of alternating current devices, which in the Netherlands have a frequency of 50 Hz. Mobile phones, wireless internet and radio and TV transmitters use fields with a frequency of 100,000 Hz to 300 GHz. These are the RF fields. Higher frequencies on the electromagnetic spectrum are infrared radiation, ultraviolet radiation, X-rays and gamma radiation.

16. Low frequency electromagnetic fields have a long wavelength. The range of these waves is large. This means that the signal reaches far. The higher the frequency, the shorter the wavelength and the less far the electromagnetic waves reach. The image below is for illustration purposes:



Mobile networks in the Netherlands

17. In 1992 the first mobile phone networks were put into service in the Netherlands (so-called 2G: the second generation). GSM was mainly used to

phone and to send short text messages (SMS). The Third generation, mobile networks (3G) is UMTS. The UMTS network has more capacity than GSM and can process and send larger amounts of data. This makes it suitable for calling and surfing the internet. The Fourth generation, mobile network - LTE (4G) - is a further development of UMTS. It was introduced in the Netherlands in 2013 and focuses primarily on the (mass) processing of data.

18. Mobile telecommunications takes place via available (radio) frequency bands. A frequency band is a continuous range of frequencies of electromagnetic waves. The radio spectrum is divided into different frequency bands. The National Frequency Plan (NFP) indicates per frequency band for which use the band is intended. For example, bands are intended for mobile telephony and the Internet, radio and television broadcasting, air traffic control and so on. The NFP is compiled by the Ministry of Economic Affairs in close consultation with the Netherlands Radiocommunications Agency (part of the Ministry of Economic Affairs).

19. Different generations of mobile networks use different frequency bands. 3G has been present in the Netherlands on the 2,100 megahertz (MHz) frequency band since 2001, although some telecom companies use the 900 MHz for this purpose. 4G uses different frequencies, including the 800 MHz, 900 MHz, 1,800 MHz and 2,100 MHz and the 2.6 GHz frequency band.

The Fifth Generation, mobile networks (5G)

20. The fifth generation of mobile networks (5G) is imminent. It is also known as NR, which stands for 'New Radio'. The biggest expected advantages of 5G are the high speed, more capacity and faster connection. With the advent of 5G it is expected that more connections will be possible between multiple ICT and telecommunications applications, services and services. Think of payment traffic, Internet of Things (IOT) services, logistics and autonomous driving. But also new applications such as remote operations and applications for agriculture.

21. The difference of 5G compared to 4G is first of all in the frequencies. 5G covers a new frequency range, namely on top of the 2.6 GHz, namely also the 3.5 and 26 GHz frequency band. Existing frequencies are also transferred to them. As mentioned, the higher the frequency, the shorter the wavelength and the less far the electromagnetic waves reach. Illustrative for the range of the different frequencies is the image below, which can be found on the website of Knowledge Platform EMV:⁶

| Frequency | Function | Antenna range |
|---------------|---|--|
| 700 Megahertz | National coverage with sufficient capacity | A few hundred meters to a few kilometers |
| 3.5 Gigahertz | Higher capacity at local level e.g. in urban environment suitable for many business and consumer applications | Tens of metres to a few hundred metres |
| 26 Gigahertz | Very high capacity at micro level businesses, homes and immediate surroundings on the street | Several meters |

22. In addition, 5G will use a different type of transmitter mast than its predecessor(s). Transmitters for 2G, 3G and 4G reach like an impeller with a range of about 120 degrees around it. This is called 'broadcasting'. Because these are set up (high) with three of them together, a joint range of 360 degrees is created. Each contact with a receiver (e.g. smartphone, tablet or PC) takes place on a specific frequency from the transmitter. The receiver 'responds' to a different frequency and at a lower speed.

23. Transmitters for 5G, on the other hand, consist of several transmitter elements (sub-transmitters) that are arranged side by side (in a matrix of, for example, 4x4, 8x8 or 16x16) for specific functions. In case of receiver activity

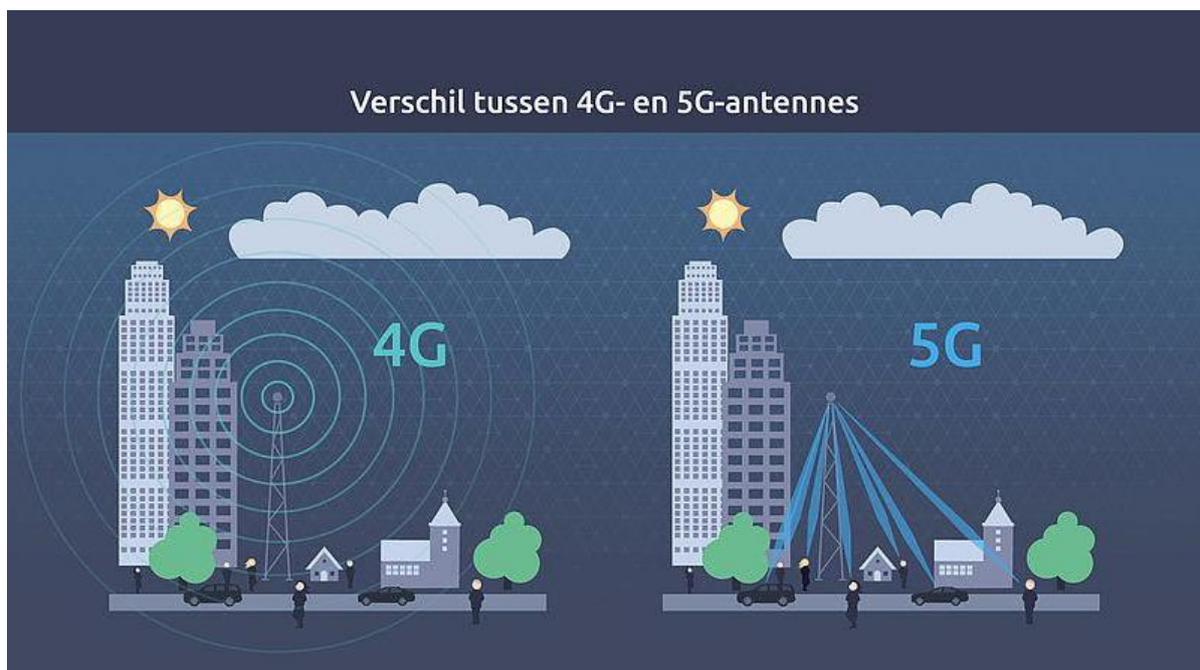
Footnotes.

⁶ <https://www.kennisplatform.nl/welke-frequenties-gaat-5g-gebruiken/> .

(e.g. a smartphone) the transmitter comes into action, determines the direction of the receiver and arranges a radiation beam that focuses on the receiver. This is called beamforming. Via this beam, data signals (download or upload) go back and forth in the same frequency band.

24. This is possible because of MIMO technology (Multiple In, Multiple Out or Multiple-Input Multiple-Output). Because 5G compatible transmitters have multiple transmitter elements clustered - with a matrix of 8×8 there are 64 - it is possible to control multiple users and multiple devices at the same time. This is called massive MIMO technology. "Massive," indicates that multiple beams are in operation, sometimes with more than one transmitter directed at the same receiver. The more elements are focused on the same receiver, the sharper (and more intense in radiation) the beam.

25. The image below shows the difference between the operation of 4G antennas (broadcasting) and 5G antennas (beamforming):



26. In addition to the massive MIMO transmitters, small cells will be used for 5G. These are small masts that are placed in busier areas in order to make better use of the radio waves. The

Small cells amplify signal beams, which is necessary because the radio waves at the higher frequencies have a (much) shorter wavelength. For a good range, a direct line without interruptions (e.g. a tree or building) will always have to exist between a transmitting antenna and a receiver (e.g. another antenna or smartphone). The small cells, which according to plan will be placed on e.g. **buildings, in lampposts and on bus shelters**, should take care of this.

27. Because the range of (short) radio waves on the (higher) frequencies intended for 5G is much shorter, (very many) more antennas will be needed to create an opaque 5G field. This will lead to antennas at a distance of 100 to 150 meters from each other; in built-up inner cities at even shorter distances.

28. The Radiocommunications Agency has asked Stratix to conduct an inventory of small cells and massive MIMO antennas for 5G. The Radiocommunications Agency published the study on 9 May 2019 (**production 2**). It provides an overview of 5G antennas that can - and will - be used in the near future and their technical specifications if the government's plans go ahead.

The 'rollout' of 5G

29. In the coming years, the State intends to make several frequency bands available for which (resources for) 5G are currently being developed. The policy pursued by the government in this respect is evident from the Frequency Policy Memorandum.⁷ This Memorandum was presented to the Lower House of Parliament by the then Minister of Economic Affairs in a letter dated 7 December 2016 (**production 3**). As this shows, the Minister calls wireless communication the 'lubricant' for the development of new products and services. According to the Minister, the availability of frequency space is a 'precondition' and a 'raw material' for wireless applications. A further

Footnotes.

⁷ <https://www.rijksoverheid.nl/documenten/rapporten/2016/12/07/de-nota-frequentiebeleid-2016> .

elaboration of the Frequency Policy Memorandum can be found in the National Frequency Plan (NFP).⁸

30. General government policy on connectivity is reflected in the Digital Connectivity Action Plan (**production 4**). The Mobile Communication Memorandum (June 2019) elaborates this policy in more detail, including the distribution of the frequencies that will become available (**production 5**).

31. As can be seen from the policy documents referred to above, the issue of new frequencies for 5G - part of the roll-out of 5G - will take place by means of an auction for competition law reasons. Telecom operators can compete for these frequency bands. In the Netherlands the 700 MHz, 1,400 MHz, 2,100 MHz and 3.5 GHz EN 26 GHz frequency bands will be auctioned (specifically) for the roll-out of 5G in the coming years, if the government has its say.

32. The auctioning of licences for the use of the 700, 1,400 and 2,100 MHz frequencies is currently being prepared. In a letter dated 5 December 2019, the State Secretary for Economic Affairs offered for public consultation all the regulations, decisions and orders necessary for the implementation of that auction (**production 6**). The aim is for the auction to take place at the start/middle of 2020 (the State Secretary does not comment on a precise planning). In principle, licences will be granted for a period of 20 years, as is evident from the draft licences submitted for consultation.

33. According to the Digital Connectivity Action Plan, the 26 GHz frequency band is the most important band for the further development of 5G, because a lot of frequency space is available on these high frequencies. This frequency band will take place later than the auction of the 700, 1,400 and 2,100 MHz frequency bands, but is planned for 2020, as shown in (the offer letter to

Footnotes.

⁸ <https://wetten.overheid.nl/BWBR0035791/2019-12-06> .

the House of Representatives accompanying (**production 7**) the Digital Connectivity Action Plan.

34. The auction of the 3.5 GHz frequency band will take place at a later date, probably in 2022.

Tests

35. In anticipation of the roll-out of 5G in 2020, the possibilities of 5G are being tested at various locations in the Netherlands. To this end, the Netherlands Radiocommunications Agency has granted so-called experimental licences to T-Mobile, KPN and Vodafone. This is a temporary broadcasting license (maximum one year) for non-commercial use that allows mobile operators and other parties to carry out controlled tests. These tests are technical in nature.

36. Between February and September 2019, the Netherlands Radiocommunications Agency carried out its own field strength measurements at three test locations in order to gain insight into the electromagnetic radiation of 5G antennas. A report drawn up by the Radiocommunications Agency as a result of this, dated 23 September 2019, is submitted as **production 8**. More about the conclusions drawn from the field strength measurements and the value that may be attached to them below.

The Telecom Code and implementation

37. The European Union has set itself the objective of being a world leader in the roll-out of 5G. All this - in short - to strengthen the competitiveness of the European Union on the world stage. The European Union wants to beat economic and technological superpowers such as the United States and China.

38. In its Communication of 6 May 2015 on the Digital Single Market Strategy for Europe, the European Commission stated that it would

the review of the telecommunications framework would focus on measures aimed at stimulating investment in high-speed broadband networks.⁹ In the 5G Action Plan of 14 September 2016, the European Commission proposed the timely and coordinated roll-out of 5G networks in Europe through a partnership between the European Commission, the Member States and industry.¹⁰ The review of the telecommunications framework would focus on measures aimed at stimulating investment in high-speed broadband networks.

39. *Directive 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code ('the Telecom Code')* provides the frameworks (among many other subjects covered by it) for the member states of the European Union when deploying the 5G network (**production 9**). Under Article 54 of the Telecom Code, Member States are required to take these measures no later than 21 December 2020 "to reorganise and allow the use of sufficiently large blocks in the band from 3.4 to 3.8 GHz" and "to allow the use of at least 1 GHz in the band from 24.25 to 27.5 GHz, provided that there is clear market demand and there are no significant restrictions on the migration of existing users or the freeing up of bands".

40. The European Union has thus identified specific frequency bands for the roll-out and application of 5G.

Implementation in the Netherlands

41. The Telecommunications Act will be amended to implement the Telecommunications Code in Dutch legislation. The Minister of Economic Affairs published a draft bill on 16 July 2019 to enable the roll-out of 5G in the Netherlands (**production 10**). The explanatory memorandum to this bill is

Footnotes.

⁹ <https://eur-lex.europa.eu/legal-content/NL/TXT/PDF/?uri=CELEX:52015DC0192&from=EN> .

¹⁰ <https://ec.europa.eu/transparency/regdoc/rep/1/2016/NL/1-2016-588-NL-F1-1.PDF> .

submitted as **production 11**. The online explanatory memorandum to the bill for consultation summarises the (intended) consequences of the amendments (**production 12**):

"The consequences for citizens, businesses and government:

- Thanks in part to the connectivity requirement and the further harmonisation of spectrum policy, citizens and businesses will have wide access to high capacity networks at a reasonable price.*
- The Telecom Code provides a high level of protection for end-users. Providers are obliged, among other things, to provide more information prior to the conclusion of a contract and to provide a concise and readable summary of the contract.*
- The Universal Service (UD) is a safety net to ensure that a minimum of services is available and affordable; it is being modernised. Adequate broadband internet access such as UD is defined on the basis of a basic list of services that citizens should at least be able to use, such as e-mail and surfing and e-government access.*

The impact on businesses:

- The provisions relating to end-users will be harmonised. Providers will be subject to new obligations in this area.*
- The roll-out of wireless access points will be facilitated by requiring public authorities to meet reasonable requests for wireless access point deployment on fair, reasonable, transparent and non-discriminatory terms.*

The impact on public authorities:

- Public authorities (central government, provinces, municipalities and water boards) should provide access to public infrastructure, including street furniture (such as bus shelters and traffic lights) for the deployment of small cells.*

Motives, interests and concern for public health

42. At both European and national level, the roll-out of 5G is entirely driven by economic motives. Illustrative are points 28¹¹ and 109¹² of the Telecom Code. The sections in the 179-page Telecoms Code that relate to public health as a weighted factor in its creation can be counted on one hand and, moreover, are not concrete or meaningless:

- in point 5 it is stated in general terms that the freedom to provide electronic communications networks and services is only restricted by certain conditions and restrictions, including those relating to public health,
- point 110 states, without further detail, that 'it is imperative to ensure that citizens are not exposed to electromagnetic fields to an extent that is harmful to human health',
- paragraph 114 states in general terms that restrictions on the principle of technology neutrality should be appropriate, inter alia, on the basis of the need to ensure the protection of public health by limiting public exposure to electromagnetic fields,

Footnotes.

¹¹ *"Appropriate incentives should be provided to encourage investment in new very high capacity networks that support innovation in content-rich Internet services and strengthen the Union's international competitiveness. Such networks have enormous potential to serve consumers and businesses across the Union. It is therefore crucial to promote sustainable investment in the development of such new networks (...)"*

¹² *"Ensuring widespread connectivity in each Member State is essential for economic and social development, participation in public life and social and territorial cohesion. As connectivity and the use of electronic means of communication become an integral part of European society and prosperity, Member States must ensure wireless broadband coverage across the Union. (...) Furthermore, consistent, coordinated action for high value terrestrial wireless coverage across the Union, based on best national practices regarding authorisation obligations for operators, should aim to achieve the objective set out in the Radio Spectrum Policy Programme, namely that all Union citizens should have access to the highest broadband speeds of at least 30 Mb/s both indoors and outdoors by 2020, and achieve an ambitious vision for a gigabit society in the Union. (...)"*

- Article 45 provides that public health is to be protected against electromagnetic fields (point (b)) and that consistency and predictability in the way authorisations for the use of radio spectrum are granted with a view to protecting public health (point (h)) should be sought throughout the European Union.

43. The common denominator in all these references is the reference to Council Recommendation 1999/519/EC of the European Union (**production 13**) for 'justification'. In this Recommendation, the Council recommends that the Member States follow the exposure guidelines for electromagnetic fields drawn up by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), on which more is given below.

44. The Explanatory Memorandum to the proposed amendment to the Telecommunications Act actually contains even fewer references to subjects relating to public health. It simply refers to the exposure guidelines presented by the ICNIRP.

Summary 1

45. The rollout of 5G and the auction by the State of the required frequency bands originated in the European desire to be an innovative leader. With the upcoming frequency auctions, the Dutch government is anticipating an amendment to the Telecommunications Act, which has yet to be passed by the legislature. At both European and national level, the rollout of 5G is entirely driven by economic motives. Public health has not been a weighed factor in both the creation of the Telecommunications Code, the proposal to amend the Telecommunications Act and the planned auctioning of frequency bands earmarked for 5G.

Health Risks

46. Scientific research since at least 1966 has shown that exposure to electromagnetic fields can lead to damage to health. Since the 1980s, harmful health effects of radiation (2G and 3G) have been suggested by hundreds of scientists. The long-term harmful effects of electromagnetic fields have hardly been (properly) researched. This is on the eve of a significant increase in exposure to electromagnetic radiation, if it is up to the State.

Higher radiation density at 5G

47. 5G uses higher frequencies than its predecessors, while due to a reduced range or shorter wavelength (many) more antennas are needed to create an opaque 5G field. These will not only be placed in (high) masts, but (especially the small cells) also close to the ground in e.g. lampposts and on bus shelters. As explained, these will be placed every 100 metres or so and in densely built/populated areas at even shorter distances from each other. As a result, the radiation density will increase considerably. The explanatory memorandum to the Telecommunications Act amendment states in margin 2.6.1:¹³ *"In the case of 5G networks using high frequencies, the range of a cell in a mobile network can also become (much) smaller, necessitating the installation of more antenna set-up points"*.

48. The higher radiation density at 5G will undeniably lead to greater health risks than those already known in other applications of electromagnetic fields such as 2G, 3G and 4G. Certainly if it is borne in mind that the intensity of exposure is different. As explained above, the transmitting antennas intended for 5G work on the basis of the principle of beamforming. This means that radiation is bundled in a targeted direction towards a receiver,

¹³ See **production 11**.

the so-called phased array. This means that there are short but frequent peak moments in the radiation. This bundled radiation has much more energy than radiation of, for example, 4G. Not only the receiver (a smartphone) is exposed to this energy, but also the carrier of a receiver (a human).

49. Radiation of 5G will be on top of the already existing radiation load of previous generations of mobile telephony. Thus, there is no doubt that both the radiation density and intensity of exposures will increase significantly with a 5G roll-out.

The government's vision of the public health aspect

50. Despite an increasing radiation density, the government sees no reason to discontinue the roll-out of 5G because of health risks. Economic motives and the drive for innovation prevail. In fact, the health aspect is not given any real consideration; there is no real weighing up of interests.

Parliamentary questions

51. The Lower House drew attention to the possible health risks and the fact that - to put it mildly - there is no scientific consensus on the safety of 5G. During a parliamentary debate on 5 June 2018 (**production 14**). The Minister of Economic Affairs has not responded substantively to this.

52. The safety of 5G radiation was also discussed during a Parliamentary debate on 4 July 2019. The House of Representatives called for an independent investigation by the Health Council of the Netherlands into the health risks associated with 5G. The State Secretary of the Ministry of Economic Affairs has 'only' pointed out that no negative health effects occur if the international guidelines (ICNIRP)

and referred to a ZonMW research programme (**production 15**).

53. In a letter dated 16 April 2019, the State Secretary of the Ministry of Economic Affairs, Agriculture and Innovation and the Minister of Health, Welfare and Sport answered questions from the standing committees about the rollout of 5G (**production 16**). Once again, the emphasis was on economic growth and social development. With regard to possible health risks, reference was made (again) without further substantiation to international guidelines (ICNIRP). The State Secretary and Minister acknowledge, however, that these guidelines are only based on scientifically established effects that may occur during or shortly after exposure. The State Secretary for Economic Affairs and the Minister of Health, Welfare and Sport did not comment on long-term effects (or even effects in the medium term).

54. Whereas Members of Parliament have referred to studies showing that there are serious reasons to assume that exposure to electromagnetic radiation (and therefore 5G) leads to health risks, the State Secretary and Minister merely noted, without further explanation, that "there are no indications that exposure to radio frequency EMF by mobile telephony leads to health effects".

55. The State Secretary and Minister also referred to the vision of the EMV Knowledge Platform (which brings together RIVM, TNO, DNV GL, GGD GHOR Nederland, Agentschap Telecom, ZonMw and Milieu Centraal). According to the EMV Knowledge Platform, electromagnetic transmission signals can be harmful to health if they are stronger than the exposure guidelines used (more about this below). The State Secretary and Minister are of the opinion that the exposure guidelines will not be exceeded during the roll-out of 5G.

56. On 9 September 2019, MP Van Raan (PvdD) put questions to the State Secretary of Economic Affairs about the harmfulness of 5G for animals and humans (**production 17**). In a letter dated 2 October 2019, the State Secretary announced that

that the questions cannot be answered within the usual time limit. On 20 December 2019 the State Secretary of EZK answered the questions on behalf of the government (**production 18**). The answer is disappointing. The State Secretary refers to earlier reports from her and the investigations referred to above. She also refers to a study on long-term health effects (COSMOS) that has been extended to 2023 and the results of which are therefore not yet known.

Taking a closer look at the guidelines and studies invoked by the government

57. It is explained below that the guidelines and studies invoked by the government are not convincing and, in some cases, even unsound. Moreover, none of these studies exclude that 5G leads to health damage, especially in the medium and long term. The large number of studies that show or at least suggest that there are real and serious health risks is ignored.

ICNIRP

58. The government frequently refers to exposure guidelines for (low frequency) electromagnetic fields drawn up by ICNIRP. The ICNIRP exposure guidelines are submitted as **production 19**. A memo from the EMV Knowledge Platform on a modification of this in 2010 (less strict guidelines) is submitted as **production 20**. The Council of the European Union in Recommendation 1999/519/EC (initially) advised the member states to use these guidelines.

59. According to ICNIRP, the exposure directive for electromagnetic fields with frequencies between 10 and 400 MHz is 28 volts per metre (V/m). The guideline for frequencies between 400 and 2,000 MHz is calculated on a frequency-by-frequency basis and ranges up to 61 volts per metre. For frequencies from 2,000 MHz to 300 GHz, a fixed exposure guideline of 61 V/m applies.

60. Recommendation 1999/519/EC of the Council of the European Union is not binding on the Member States. Member States deal with this in different ways. A first group of Member States have incorporated the Recommendation into binding national legislation (including the Czech Republic, Estonia, France, Hungary, Ireland, Luxembourg, Portugal, Romania, Germany and Slovakia). A second group, including the Netherlands, does use the Recommendation (and thus the ICNIRP Guidelines) in practice (in addition to the Netherlands: Austria, Cyprus, Denmark, Finland, Latvia, Malta, Spain, Sweden and the United Kingdom). A third group uses stricter guidelines than those formulated by ICNIRP. This group includes Belgium, Bulgaria, Croatia, Italy, Lithuania, Poland, Slovenia and Russia. A further explanation of this application is described in the *Comparison of International policies on electromagnetic fields of the Ministry of Health, Welfare and Sport (production 21)*.

61. The exposure guidelines produced by ICNIRP have been the subject of much scientific criticism for many years. The well-founded study by Sarah J. Starkey, independent researcher in the field of Neuroscience and Environmental Health Research (**production 22**) is illustrative. She, but also many other scientists (more about this below) point out the following:

- ICNIRP's exposure guidelines date back to 1998 and have not been updated since 2010. At that time, no one had heard of 5G and since then, innovations and scientific developments have made a big leap. The exposure guidelines are (strongly) outdated and ignore the specific characteristics of 5G technology,
- ICNIRP has not (deliberately) included in its vision studies that show DNA damage, studies that show that electromagnetic radiation produces free radicals in the body and studies that show effects on male fertility,
- the ICNIRP guidelines are (mainly) based on acute warming effects or thermal effects (more than one degree).

temperature increase with an irradiation of 6 or 30 minutes). Non-thermal health effects (cell-physiological processes) are not considered, because ICNIRP does not consider the risks to be proven. This is surprising because, as explained below, there are several thousand studies showing health effects such as DNA damage when exposed far below the ICNIRP guidelines. This is the main reason why the French Court of Versailles does not accept the ICNIRP guidelines (**production 23**). According to the Court, these are "based solely on the immediate effects on health, such as the stimulation of muscles or peripheral nerves, shocks and burns caused by contact with conductive objects, or the rise in tissue temperature due to the effect of absorbing energy";

- ICNIRP guidelines are based on scientifically established effects that may occur during or shortly after exposure. Any risk of health damage in the medium or longer term is excluded from the ICNIRP study,
- finally, the independence of the members of ICNIRP may be (seriously) questioned. They often have interests in telecommunication companies. Remarkably, they are looking for successors from their own (like-minded) network.

62. The limitations of the literature studies carried out by ICNIRP (exclusion of non-thermal and long-term effects) and the (targeted) way in which ICNIRP tries to justify this, despite the identified long-term health risks (including cancer), can be seen from the following text from the ICNIRP guidelines:¹⁴

"only established effects were used as the basis for the proposed exposure restrictions. Induction of cancer from long-term EMF exposure was not considered to be established, and so these guidelines are based on short-term, immediate health effects such as stimulation of peripheral nerves and muscles, shocks and burns.

¹⁴ Underlining by attorney at law.

caused by touching conducting objects, and elevated tissue temperatures resulting from absorption of energy during exposure to EMF. In the case of potential long-term effects of exposure, such as an increased risk of cancer, ICNIRP concluded that available data are insufficient to provide a basis for setting exposure restrictions, although epidemiological research has provided suggestive, but unconvincing, evidence of an association between possible carcinogenic effects and exposure at levels of 50/60 Hz magnetic flux densities substantially lower than those recommended in these guidelines.”

63. Both the European Parliament and the Council of Europe have now come to realise that the exposure guidelines formulated by ICNIRP - in particular because of the restrictions described above - are inadequate and inadequate. In a resolution of 2 April 2009 on health concerns associated with electromagnetic fields (2008/2211(INI)), the European Parliament urged the European Commission to review Recommendation 1999/519/EC (which recommends the use of the ICNIRP guidelines) (**production 24**). To this end, the European Parliament considered, inter alia, that there is scientific uncertainty about possible health risks, particularly for young people whose brains are still developing, and that controversy in scientific circles about the possible health risks of electromagnetic fields has increased since Recommendation 1999/519/EC.

64. The Council of Europe made a similar call in its Resolution 1815 of 27 May 2011 on health risks associated with electromagnetic fields (**production 25**). As **production 26**, Stop5GNL will present a summary and explanation of this resolution. This explicitly (also) contains objections to the links between ICNIRP researchers and the telecom sector.¹⁵

Footnotes.

¹⁵ 29. *The rapporteur underlines in this context that it is most curious, to say the least, that the applicable official threshold values for limiting the health impact of extremely low frequency electromagnetic fields and high frequency waves were drawn up and proposed to international political institutions (WHO, European Commission, governments) by the ICNIRP, an NGO whose origin and structure are none too clear and which is furthermore suspected of having rather close links with the industries whose expansion is shaped by recommendations for maximum threshold values for the different frequencies of electromagnetic fields.*

65. If (even) the European Parliament and the Council of Europe reject the ICNIRP exposure guidelines with reasons and explicitly state that there is sufficient evidence of potentially harmful effects of electromagnetic fields on humans and animals, it is difficult to understand that the Dutch government is hiding behind the ICNIRP standards without further substantiation and continues to deny health risks.

66. The chairman of ICNIRP, Eric Van Rongen (who is also a member of the Health Council of the Netherlands), is also unable to refute the objections raised against the ICNIRP guidelines. During a presentation by the Swedish Radiation Authority, Van Rongen was confronted with the fact that more than 220 scientists (behind the '5G appeal', more on this below) disagree with the ICNIRP's vision. Van Rongen was asked why people should not believe these (more than 220) scientists but ICNIRP, which consists of 'only' 28 scientists. Van Rongen could not answer this with arguments but left the choice of who to believe.¹⁶

Footnotes.

30. If most governments and safety agencies have merely contented themselves with replicating and adopting the safety recommendations advocated by the ICNIRP, this has essentially been for two reasons:

** in order not to impede the expansion of these new technologies with their promise of economic growth, technological progress and job creation,*

** and also, because the political decision-makers unfortunately still have little involvement in matters of assessing technological risks for the environment and health.*

65. After analysing the scientific studies available to date, and also following the hearings for expert opinions organised in the context of the Committee on the Environment, Agriculture and Local and Regional Affairs, there is sufficient evidence of potentially harmful effects of electromagnetic fields on fauna, flora and human health to react and to guard against potentially serious environmental and health hazards.

¹⁶ <https://www.youtube.com/watch?v=jZ2LbIvZ52U> : "Well, that is difficult to say, everybody can believe what they want. If those scientists think that there is enough evidence, it is their responsibility to draw that conclusion. We draw different conclusions from that. It is up to people to decide which group they think is more reliable and what they should believe."

EMV knowledge platform

67. The government also draws attention to the opinion of the EMF Knowledge Platform (**production 27**). According to the EMF Knowledge Platform, studies have found indications of an increased risk of two types of brain tumours with frequent and prolonged use of a mobile phone, but the 'significance of these indications' is 'not yet clear' according to the EMF Knowledge Platform. However, the EMF Knowledge Platform explicitly states that it is not excluded that health effects may be found in the future that occur below the level of the exposure guidelines (of ICNIRP). These are possible effects of long-term exposure (which were not considered by the EMF Knowledge Platform). In short, this platform, which is financed by the government, telecom and energy companies and therefore cannot be considered independent, talks about health risks.

68. In referring to the EMF knowledge platform, the government in particular (read: only) agrees with the observation that there is no scientific certainty about the harmfulness of 5G. The government does not discuss the indications of (serious) health risks (in the longer term) identified by the EMV Knowledge Platform when answering parliamentary questions and in other explanations.

ZonMw's Electromagnetic Fields and Health Programme

69. ZonMw is the Dutch organisation for health research and care innovation. Its main clients are the Ministry of Health, Welfare and Sport and the Netherlands Organisation for Scientific Research (NWO). Since 2006 ZonMW has conducted the

Program Electromagnetic Fields and Health, which focuses on all relevant electromagnetic fields (0 - 300GHz). This programme covers technological, biological, sociological and epidemiological research.

70. In 2015 ZonMw completed an interim evaluation, which was sent to the House of Representatives on 23 September 2015 (**production 28**). This research focused on health damage in the short and medium term. Once again (and apparently deliberately), the long term was not involved. Nevertheless, potential health risks were also identified for the short and medium term. This can be seen, for example, in the report on the interim evaluation by the research bureau Technopolis (**production 29**, p. vii).¹⁷

71. The State Secretary of the Ministry of Economic Affairs, Agriculture and Innovation concludes from ZonMw's interim evaluation that there are no indications that exposure to radio frequency electromagnetic radiation leads to health effects (among other things in her letter of 16 April¹⁸). This is therefore incorrect and contrary to the best of our knowledge. Technopolis explicitly noted that no conclusions can be drawn from the interim evaluation.¹⁹

72. In a letter to the Standing Committee on Health, Welfare and Sport and the Ministry of Economic Affairs, the EHS Foundation explained the inadequacies of ZonMw's investigation (**production 30**).

Footnotes.

¹⁷ *"The programme has provided a number of interesting new insights into possible effects of EMF on health. Some biological studies point to a possible link between exposure to EMF and effects on the immune system, which may give rise to further research. However, the majority of the biological studies did not provide any significant evidence that, with daily exposure within the set limits, EMF poses a risk to health".*

¹⁸ See production 16.

¹⁹ See production 29, p. viii: *"As a result, the statistical eloquence is rather low, so little certainty can be drawn from conclusions. Therefore, although at the time an understandable choice, it should be noted with hindsight that the broad programme design proved to be an obstacle to the full achievement of the programme objectives, and that the programme would have benefited from more thematic coherence".*

Health Council of the Netherlands

73. In addition, the government's vision is based on advice issued by the Health Council of the Netherlands. In 2011, the Health Council of the Netherlands published a report on the influence of radio frequency telecommunication signals on children's brains (**production 31**).²⁰ The Health Council of the Netherlands concludes that no evidence has been found that exposure to EMF has a negative influence on the development and functioning of children's brains. However, the fact that only short-term effects were considered is typical of the approach taken in government studies. The Health Council of the Netherlands already commented on the first page of its report: "In the absence of data, the Committee is unable to comment on the occurrence in children of possible other types of long-term effects, such as the development of brain tumours."

74. The Health Council of the Netherlands has carried out further literature research into the long-term health effects of mobile phone use. The Health Council of the Netherlands conducted this literature review in three parts:

- the first study concerned epidemiological data.²¹ According to a letter from the State Secretary for Infrastructure and the Environment dated 19 August 2013, this literature review did not provide clear and consistent evidence of an increased risk for tumours in the brain or other parts of the head related to the use of a mobile phone for thirteen years or less, but such a risk cannot be ruled out either (**production 32**). The Health Council states *'that there is no reason not to apply the ALARA principle (Alara stands for as low as reasonably achievable) to radio frequency electromagnetic fields'*
- the second literature review concerned animal experiment data on the relationship between exposure to radio frequency electromagnetic fields and

Footnotes.

²⁰ Because of the size of the report, only the cover page and the summary (in the form of an offer letter to the State Secretary) are submitted.

²¹ <https://www.gezondheidsraad.nl/documenten/adviezen/2013/06/03/mobiele-telefoons-en-kanker-deel-1-epidemiologie-van-tumouren-in-het-hoofd> .

cancer.²² According to a letter from the State Secretary for Infrastructure and the Environment dated 16 October 2014, this research did not reveal any relationship between the exposure of animals to radio-frequency electromagnetic fields and cancer (**production 33**). However, it is also not excluded,

- the third literature review concerned an update of the previous advice and a final conclusion.²³ According to a letter from the State Secretary for Infrastructure and the Environment dated 1 December 2017, this final conclusion is that there is no proven link between prolonged and frequent use of a mobile phone and an increased risk of tumours in the brain or head-neck area, but that this link cannot be excluded either (**production 34**). In fact, according to the Health Council of the Netherlands, there are 'weak indications' for this.²⁴ In its final conclusion, the Health Council of the Netherlands reiterated its recommendation to apply the ALARA principle.²⁵

"Nevertheless, the Committee would like to repeat its earlier recommendation: apply the ALARA principle. In other words: keep exposure as low as reasonably achievable (As Low As Reasonably Achievable). For example, it is unnecessary for equipment to transmit at a higher power level or for a longer period of time than is necessary to have a good connection. The Committee therefore endorses the recommendations in the Health Council of the Netherlands' Recommendation on Precaution with Reason."

75. Contrary to what the State Secretary for the Interior and Kingdom Relations would have us believe the last three literature reviews carried out by the Health Council of the Netherlands are of only minor significance. First of all, no research has yet been conducted into long-term health risks. In addition, the studies relate exclusively to mobile telephony, with other forms of exposure to

Footnotes.

²² <https://www.gezondheidsraad.nl/organisatie/straling/documenten/adviezen/2014/09/05/mobile-phones-and-cancer-part-2-animal-studies-on-carcinogenesis> .

²³ <https://www.gezondheidsraad.nl/documenten/adviezen/2016/06/01/mobile-phones-and-cancer-epidemiological-and-animal-studies> .

²⁴ <https://www.gezondheidsraad.nl/documenten/adviezen/2016/06/01/mobile-phones-and-cancer-epidemiological-and-animal-studies> (page 12).

²⁵ <https://www.gezondheidsraad.nl/documenten/adviezen/2016/06/01/mobile-phones-and-cancer-epidemiological-and-animal-studies> (page 13).

electromagnetic radiation, are not involved. Furthermore, only a relationship between bubbles and (certain) tumours was investigated; otherwise health effects would not be involved. The Health Council of the Netherlands does not rule out a health risk, contrary to what the State Secretary for the Interior and Kingdom Relations says to the House of Representatives,²⁶ so it does not rule it out in any way. This would also be odd because of the limitations of the research. Last but not least, the government ignores the Health Council of the Netherlands' explicit and clear call for application of the ALARA principle.

76. Incidentally, it is noteworthy that the Health Council of the Netherlands does not seem to have paid any heed (or has deliberately left this unnoticed) to previous findings of the World Health Organization (WHO). The WHO's International Agency for Research on Cancer Monograph Working Group had drawn (many) disturbing conclusions from a similar but broader study in 2011 (**production 35**).

77. In a letter dated 5 November 2019, the House of Representatives asked the Health Council of the Netherlands to issue an advisory report on the potential health risks in relation to 5G (**production 36**). This is the first time that the Health Council of the Netherlands has carried out a relevant (literature) study, in which the medium and long-term effects of electromagnetic radiation are also investigated. Relevant is also the fact that the Lower House of Parliament has asked that the study 'provide an overview and assessment of the (inter)national studies that have been published on possible health risks of 5G'. One of the reasons for this is that such studies are of a technical and complex nature and the conclusions are not always unanimous.²⁷

Footnotes.

²⁶ See production 16.

²⁷ *"Members of Parliament receive many e-mails from concerned citizens. Members of Parliament are also regularly referred by third parties to various studies and reports from the Netherlands and abroad. In view of the complex and technical nature of such reports and the fact that the conclusions are not always unanimous, the Committee on Health, Welfare and Sport considers it desirable to specifically ask the Health Council of the Netherlands to draw up an inventory of the most up-to-date studies and reports. All the more so because the Health Council of the Netherlands (re)confirms in its recent work programme that it closely follows scientific insights in this area".*

78. This literature review by the Health Council of the Netherlands has - of course - not yet been completed. However, this does not prevent the government from continuing the process of rolling out 5G.

Field strength measurements

79. Between February and September 2019, the Radiocommunications Agency carried out field strength measurements at three test locations to gain insight into the electromagnetic radiation of 5G antennas. The Radiocommunications Agency's conclusion is that no field strengths were observed at the test sites that exceeded the ICNIRP guidelines.²⁸ Apart from the criticism of these guidelines (see above), the Radiocommunications Agency itself notes in its report that the field strengths measured only give an indication of the 5G systems ultimately applied.²⁹ Apart from this, the field strength measurements do not provide the reassurance that is apparently intended; rather, they provide further concern.

80. As can be seen from the report of the Netherlands Radiocommunications Agency, the field strength measurements were carried out with measuring distances of 53 metres, 140 metres and 170 metres, using the following technologies, respectively: 4G (2,605 GHz), 5G (3,465 GHz) and 5G (3,675 GHz).³⁰ The measured field strengths were 3 V/m, 1,1 V/m and 2,6 V/m respectively.

81. With 4G, the test setup referred to high placed antennas (measuring distance 53 metres). The field strength of 3 V/m measured in this way is almost the highest value measured in practice and harmful to health.

Footnotes.

²⁸ See production 8, page 13.

²⁹ See production 8, page 13.

³⁰ See production 8, page 12.

82. The field strengths measured at 5G were lower, but at significantly greater measuring distances (140 and 170 metres respectively). These measuring distances arouse astonishment and even suspicion about the insertion of the measurements, now precisely for 5G a large number of small cells will be placed in densely populated and -built areas (on bus shelters, lampposts, etc.). People will come within one or a few meters of these small cells. This is relevant because the field strength increases linearly with the distance to the source (the radiation intensity is quadratic). At a distance of 10 metres, the field strengths measured by the Agency Telecom will be $1.1 \times 14 = 15.4$ V/m and $2.6 \times 17 = 44.2$ V/m. These are extremely high values, which do not yet occur in practice. The radiation intensity at a few meters from small cells is even higher.

83. In short, the field strength measurements are not representative of the situation that will arise after the roll-out of 5G if it is up to the government. This apart from the fact that it is incorrect to relate the results of the field strength measurements exclusively to the ICNIRP standards, which are exclusively based on thermal effects (see above). This certainly applies to frequencies above 3.5 GHz, since research has shown that the skin in particular is a vulnerable organ. At higher frequencies, the penetration depth of radiation into the body is reduced due to the higher absorption of the skin and below. The consequence of this is that the load on the skin increases, resulting among other things in the risk of skin cancer. This is not a thermal effect.

Summary of guidelines and studies invoked by the government

84. In summary, on the basis of the guidelines and studies put forward by the Government, it should be noted that:

- many of the studies cited by the Government are outdated (the main standards date back to 1998),
- the studies cited by the Government are selective and incomplete in their selection of bronze,

- the studies cited by the Government do not exclude health risks, but merely conclude that the studies in question did not demonstrate any negative impact. However, according to the same studies, there are no studies showing that 5G radiation is safe for health, and in some cases, there are even indications of health risks,
- all the studies on which the government bases its answers do not address medium- and long-term health effects, but (explicitly) only the short term,
- the studies - in particular the ICNIRP exposure guidelines - focus exclusively on the risks of warming of the body by electromagnetic radiation (thermal effects). Relevant research into non-thermal (cell physiological) processes is not involved.

Many independent scientific studies show real and serious health risks

85. Many independent and leading scientific studies show that (especially prolonged) exposure to electromagnetic radiation leads to tumours in the brain and genitals, infertility, mutilation of sperm cells and DNA, diabetes, autism, learning and memory disorders, ADHD, depression and an increase in Alzheimer's disease. In addition, pregnant women and children are at increased risk. The independent scientific think tank Environmental Health Trust has drawn up a comprehensive overview of the relevant studies, summarising the various conclusions (**production 37**). A few relevant studies are explained below, in many cases 'peer reviewed' research has been conducted on the basis of a (very) large number of scientific studies. Conclusions are therefore not based on a single study, but on a whole range of studies and are therefore widely supported.

ECOLOG Institute (2000)

86. In 2000, the German Ecolog Institute, an independent research institute, carried out a study commissioned by the telecommunications operator T-Mobile (**production 38**). It concerned a literature review of the health effects of, among other things, high-frequency electromagnetic radiation. The findings included that radiation is carcinogenic, harmful to **the immune system** and affects brain and nerve function.

EU Reflex research (2004)

87. On behalf of the European Union, a large-scale study was carried out at various European universities in seven countries investigating the non-thermal effects of electromagnetic radiation. The radiation used in the study had a specific absorption rate (SAR) of between 0.3 and 2 watts per kilogram. The SAR is the degree to which the body absorbs emissions from a telephone. Most phones emit radio signals at SAR levels between 0.5 and 1 W/kg. Mobile phones should only be sold if they fall within the SAR of 2 watts per kg. The results show that even at an SAR value of 1.3W/kg, representative for many mobile phones, significant health damage is caused in human cells and DNA (single and double 'DNA breaks'). Stop5GNL submits (because of the considerable size of the report) as (**production 39**) a 'project progress report' of the Reflex research containing a summary of the most important conclusions.³¹

Footnotes.

³¹ "With respect to radiofrequency electromagnetic fields (RF-EMF), data showed that RF-EMF produced genotoxic effects in fibroblasts, granulosa cells and HL60 cells. Cells responded to RF-EMF exposure between SAR level 0.3 and 2 W/kg with a significant increase in single and double strand DNA breaks and in micronuclei frequency. Chromosomal aberrations in fibroblasts were observed after RF-EMF exposure. RF-EMF at a SAR of 1.5 W/kg downregulated the expression of neuronal genes in neuronal precursor cells and upregulated the expression of early genes in p53-deficient embryonic stem cells, but not in wildtype cells. Proteomic analyses on human endothelial cell lines showed that exposure to RF-EMF changed the expression and phosphorylation of numerous, largely unidentified proteins. Among

International Agency for Research on Cancer (IARC) (2011)

88. The International Agency for Research on Cancer (IARC), part of the World Health Organisation (WHO), also concludes that there are health risks. Already in 2011, IARC qualified the radiation from mobile phones and other wireless devices as potentially carcinogenic to humans (**production 40**).

Biointiative report (2012)

89. In 2012, an extensive study was published by the BioInitiative Working Group, an international working group of renowned scientists, researchers and specialists in health policy. The report is in fact a discussion and summary of all the research (more than 3,500 studies) carried out so far. Among other things, it deals with the immunological, genetic and neurological effects of low-intensity radiation. The BioInitiative Working Group concluded that the evidence for health risks from radio frequency radiation has increased significantly since 2007. According to the BioInitiative Working Group, adverse effects already occur at exposures (far) below the ICNIRP exposure guidelines, which, according to the Working Group, are seriously deficient. Reference is made to DNA damage, cancer, effects on memory, learning, behaviour, fertility problems, attention, sleep disturbance and neurological disorders such as Alzheimer's disease. In addition, the BioInitiative Working Group sees strong evidence for an increase in the risk of autism and an increase in complaints in the case of

Footnotes.

³¹ continued *“these proteins is the heat shock protein hsp27, a marker for cellular stress responses. There was no evidence that RF-EMF affected processes such as cell proliferation, apoptosis or immune cell functionality.*

For both ELF-EMF and RF-EMF, the results of the whole genome cDNA micro-array and proteomic analyses indicated that EMF may activate several groups of genes that play a role in cell division, cell proliferation and cell differentiation. At present the biological relevance of these findings cannot be assessed”.

autism. The BioInitiative report with the core conclusion³² on page 26 (excluding annexes) is submitted as **production 41**.

Yakymenko and others (2015)

90. Another leading research is that of Principal Investigator Igor Yakymenko, working at the Institute of Experimental Pathology, Oncology and Radiobiology of NAS of Ukraine. He has carried out this research with colleagues from various countries. They analysed one hundred existing studies on the harmful influence of electromagnetic radiation on DNA. The researchers concluded that exposure to electromagnetic radiation can lead to DNA damage. The working mechanism responsible for this is (presumably) the generation of free radicals (Reactive Oxygen Species, ROS). ROS has been demonstrated in rats and embryos, among others. According to the researchers, damage to the DNA can lead to various health problems, including cancer, headaches, fatigue, Alzheimer's, Parkinson's and even skin problems. (Also) these studies are based on exposures far below the ICNIRP exposure guidelines. The conclusion can be found on page 12 of the report (**production 42**).³³

Footnotes.

³² *"We cannot afford 'business as usual' any longer. (...) Research must continue to define what levels of RF related to new wireless technologies are acceptable; but more research should not prevent or delay substantive changes today that might save money, lives and societal disruption tomorrow.*

** New regulatory limits for ELF are warranted. ELF limits should be set below those exposure levels that have been linked in childhood leukaemia studies to increased risk of disease, plus an additional safety factor. (...).*

(...)

** A precautionary limit of 0.1 (µW/cm² (which is also 0.614 Volts per meter) should be adopted for outdoor, cumulative RF exposure. This reflects the current RF science and prudent public health response that would reasonably be set for pulsed RF (ambient) exposures where people live, work and go to school. (...) This recommendation should be seen as an interim precautionary limit that is intended to guide preventative actions; and more conservative limits may be needed in the future."*

³³ *"The analysis of modern data on biological effects of low intensity RFR leads to a firm conclusion that this physical agent is a powerful oxidative stressor for living cell. The oxidative efficiency of RFR can be*

Ramazzini Institute (2017)

91. The Ramazzini Institute is a social cooperative in Italy that has been fighting cancer for more than two decades. Researchers from this renowned institute conducted a large-scale, life-long study on 2,448 laboratory animals exposed to radiation comparable to masts. The animals were exposed for a lifetime of nineteen hours a day to radiation far below the ICNIRP exposure guidelines. The experimental animals developed various types of cancer, including so-called schwann cell tumours. This is exactly the same type of tumour that researchers from the National Toxicology Program discovered during their research 3,000 kilometres away (see below). The conclusion of the Ramazzini Institute can be found in section 4 of its publication (**production 43**).³⁴

National Toxicology Program (2018)

92. The U.S. National Toxicology Program (NTP) is part of the U.S. Department of Health and Human Services. The NTP researched the development of tumours after exposing rats and mice to the transmission signals from cell phones. This ten-year study showed that in male rats there is a link between exposure to cell phone transmissions and the development of certain types of tumours. In addition

³³ continued *mediated via changes in activities of key ROS-generating systems, including mitochondria and non-phagocytic NADH oxidases, via direct effects on water molecules, and via induction of conformation changes in biologically important macromolecules. In turn, a broad biological potential of ROS and other free radicals, including both their mutagenic effects and their signalling regulatory potential, makes RFR a potentially hazardous factor for human health. We suggest minimizing the intensity and time of RFR exposures and taking a precautionary approach towards wireless technologies in everyday human life."*

³⁴ "(...) A statistically significant increase in the incidence of heart Schwannoma was observed in treated male rats at the highest dose (50V/m). Furthermore, an increase in the incidence of Schwann cells hyperplasia was observed in treated male and female rats at the highest dose (50V/m), although this was not statistically significant. An increase in the incidence of malignant glial tumours was observed in treated female rats at the highest dose (50V/m), although this was not statistically significant. (...)"

found evidence for various types of tumours, including schwann cell tumours in the hearts of male rats. This is the same type of tumour as the Ramazzini Institute found. Stop5GNL submitted the first pages of the NTP report as **production 44** with the summary and conclusions as part of it.³⁵

5G-appeal

93. Because of the health risks associated with electromagnetic radiation in general, and 5G in particular, there are calls from various quarters for the first health risks to be further investigated and excluded before the roll-out of 5G in or continued. A first 'appeal' is the International EMF Scientist Appeal from 2015, which is addressed to the United Nations. This appeal was signed by 252 scientists from 43 countries.³⁶ A second appeal is the 5G appeal, which dates from 2017, more about which below. The most recent appeal is the so-called 5G space appeal, which at the time of drafting this summons was signed by almost 200,000 people from more than 200 countries.³⁷

94. In the 5G appeal, which was sent to the European Commission in September 2017 (**production 45**), 268 scientists and physicians from 43 countries (now ³⁸) expressed their serious concerns about the health risks of the rollout

Footnotes.

³⁵ *"In males for both GSM- and CDMA-modulated RFR, we conclude that exposures increased the number of animals with tumours in the heart. Tumours of the brain were also considered to be related to exposure; and increased numbers of male rats with tumours of the adrenal gland were also related to exposure. We are uncertain whether occurrences of prostate gland, pituitary gland, and pancreatic islet tumours in male rats exposed to GSM-modulated RFR and pituitary gland and liver tumours in male rats exposed to CDMA-modulated RFR were related to RFR exposures. This was also the case with female rats, where we conclude that exposure to GSM- or CDMA-modulated RFR may have been related to tumours in the heart. For females exposed to CDMA-modulated RFR, occurrences of brain and adrenal gland tumours may have been related to exposure."*

³⁶ <https://www.emfscientist.org/> .

³⁷ <https://www.5gspaceappeal.org/the-appeal> .

³⁸ See attached list of current signatories.

of 5G. They refer to several scientific publications that point to the risk of cancer, cell stress, genetic damage, structural and functional changes in the reproductive system, learning and memory problems and neurological disorders, among others. They explicitly note that these risks (especially in the long term) also play a role if exposures to electromagnetic radiation (5G) occur under the exposure guidelines as described by ICNIRP.

95. The scientists behind the 5G appeal to the fact that ICNIRP's exposure guidelines are outdated and point to the interests of ICNIRP members in telecommunications companies. In addition, according to the 5G appeal, ICNIRP members lack knowledge about biological and medical processes, in particular oncological knowledge. They also point out that ICNIRP considered only short-term effects and therefore only the risk of "heating or exposed tissue" (i.e. thermal effects). This corresponds (fully) with criticisms of the ICNIRP guidelines from other quarters.

96. In the 5G appeal a reference is made to the EMF Scientist Appeal by pointing out that this shows that:

"Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life."

97. The scientists behind the 5G appeal are clear (translated):

"We, the undersigned scientists, recommend a moratorium on the roll-out of 5G, the Fifth generation mobile communications, until potential threats to human health and the environment have been fully investigated by

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scientists independent of industry. 5G will significantly increase exposure to radio frequency electromagnetic fields (RF-EMF) on top of already existing 2G, 3G, 4G, WiFi, etc. RF-EMF is proven to be harmful to humans and the environment".

98. Scientists call for independent research into the effects of 5G radiation "in order to ensure the safety of the population". They therefore ask the European Commission to postpone the extension of the 5G network "until the potential risks to human health and the environment have been thoroughly investigated by scientists independent of industry". There is no clearer call, which is scientifically based and widely supported.

Summary 2

99. No scientific research confirms that electromagnetic radiation is safe in the medium and long term. The studies on which the Government bases its position are concerned solely with short-term thermal effects and health risks and are also deficient. Many (thousands of) studies point to harmful effects of electromagnetic radiation on health.

How are health risks associated with electromagnetic radiation dealt with in other countries?

100. It is not only in the Netherlands that there is strong resistance to the proposed roll-out of 5G. In several countries the government or judges have intervened to prevent the risks deemed present. A comprehensive compilation of measures, advice and rulings from governments, international organisations and courts on the application of electromagnetic radiation from masts, smartphones, cordless phones and WiFi is submitted as **production 46**. As

illustration Stop5GNL points to various measures and rulings in France, Switzerland and Italy.

France

101. In France, the health risks of electromagnetic radiation are taken very seriously. On 10 February 2015 (already), a bill on the restriction of electromagnetic radiation was adopted because of the health risks.³⁹ This stipulates that WiFi is prohibited in rooms where children under the age of three stay. In classrooms where children stay older than three years, equipment must be switched off when it is not used for educational purposes.

Switzerland

102. In 2018 the limit values for mobile 5G telephony in the home were adjusted in the 'Ständerat' (the Swiss Senate).⁴⁰ These established limits are a factor of 100 below ICNIRP guidelines.

103. On 10 April 2019, Canton Vaud declared a moratorium (the maximum at decentralised level) on the further rollout of 5G by installing dedicated antennas.⁴¹ This is in anticipation of a report by the Swiss Federal Office for the Environment on the technology behind 5G. On 10 July 2019, the Canton of Geneva did the same.⁴²

Footnotes.

³⁹ LOI n° 2015-136 of 9 February 2015 with regard to sobriety, transparency, information and concertation in terms of exposure to electromagnets.

⁴⁰ <https://www.nzz.ch/schweiz/-staenderat-will-hoehere-grenzwerte-fuer-5g-mobilfunk-ld.1362988> .

⁴¹ <https://www.letemps.ch/suisse/5g-apres-moratoire-vaudois-tempete> .

⁴² <https://www.telecompaper.com/news/canton-of-geneva-prohibits-construction-of-5g-antennae--1288622> .

Italy

104. In Italy, a link between electromagnetic radiation and brain tumours has been established (by the highest court) since 2012⁴³.

105. The South Tyrol Parliament has authorised the government in 2015 to replace wireless networks in schools, nurseries, nursing homes and other public facilities with networks that emit less radiation.

106. In line with this, the court in Florence ordered the immediate dismantling of routers and hotspots within a school in 2017 on the claim of the parents of a pupil.⁴⁴ The court shares the concern that continued exposure can cause serious damage to the child's health because it is exposed to an electromagnetic soup at school and the protection of a child's health is a constitutional right.

107. Following a ruling of 13 November 2018 by the Lazio District Court, the Italian Ministries of the Environment, Health and Education had to launch an information campaign within six months on the risks to the health of mobile and cordless phones and how to use them properly.⁴⁵

108. In 2018, the District Court of Ivrea awarded an employee, who had to use his mobile phone every day for three to four hours for fifteen years in order to work, a compensation payment of €500 per month.⁴⁶ It is interesting to note the Court's substantiation of the connection between the following, in its opinion

Footnotes.

⁴³ Corte di Cassazione, sez. Lavoro, sentenza 3 to 12 ottobre 2012, n. 17438.:

<http://www.quotidianosanita.it/allegati/allegato1850707.pdf>.

⁴⁴ <http://www.emfsa.co.za/ehs/court-ordered-to-turn-off-wi-fi-at-a-school-in-florence/>.

⁴⁵ <https://www.lastampa.it/economia/2019/01/16/news/i-ministeri-informino-sui-rischi-dei-telefonini-1.33670886>.

⁴⁶ https://www.theguardian.com/technology/2017/apr/21/italian-court-rules-mobile-phone-use-caused-brain-tumour?CMP=share_btn_link.

exposure to electromagnetic radiation and, among other things, cancer.⁴⁷ The Supreme Court in Turin has now upheld this ruling.⁴⁸ The Supreme Court attached more value to the view of Swedish Professor Lennart Hardell, who is conducting research into the relationship between environmental factors such as electromagnetic radiation and cancer, than to research funded by industry.⁴⁹ The Supreme Court of Turin has now upheld this ruling.

109. Finally, Stop5GNL referred to the decision by many Italian municipalities to refuse permission for the roll-out of 5G in the city because of scientific ambivalence about the health risks involved.⁵⁰ These include Rome, Florence, Avellino, Lucca, Padua, Frosinono, Chieti, Isernia, Cuneo, Biela and Caserta.

Footnotes.

⁴⁷ Loosely translated: "On the basis of the above facts, it is evident, according to the court, that a causal connection (or at least also causal) must be assumed. (...) With regard to the investigations which assume that there is no connection, the court states the following. One of those investigations, Interphone, shows an increased risk of glioma - which the man has - in persons who used the telephone a lot and for a long time. Other explanations for this study also state that there are indications that there is an increased risk of glioma at higher exposures. It is also important to note that the Supreme Court ruled in a previous similar judgment that the part of the Interphone study in which it tries to exclude the link between tumours and exposure in a general sense is not particularly credible because the study was co-funded by companies that produce mobile phones. And there is a conflict of interest between the scientists who deny any connection to strength, Ahlborn and Repacholi. Furthermore, the (co-)causal link between tumours and exposure is also confirmed in case law".

⁴⁸ <https://www.phonegatealert.org/en/the-court-of-appeal-of-turin-confirms-the-link-between-a-head-tumour-and-mobile-phone-use> .

⁴⁹ <https://childrenshealthdefense.org/news/six-italian-courts-have-ruled-that-cell-phones-cause-brain-tumours/>: "As in Turin, the Brescia court ignored industry-funded studies-declaring them to be biased-and instead relied on the expert opinion of Swedish professor Lennart Hardell, an oncology specialist and cancer epidemiologist with "a focused interest in environmental risk factors for cancer."

⁵⁰ <https://oasisana.com/2019/04/05/provoca-danni-al-corpo-firenze-frena-sul-5g-e-applica-il-principio-di-precauzione-approvata-con-voto-quasi-unanime-la-mozione-in-difesa-della-salute-notizia-esclusiva-oasi-sana/> and <https://ehtrust.org/international-actions-to-halt-and-delay-5g/>.

The position of insurers

110. Where risks are increasing, insurers anticipate them. They have investigations carried out and policy conditions are adjusted in the event of proven risks or risk increases. It is noteworthy that several insurers have already taken concrete measures in this way.

Swiss Re

111. The (renowned) Swiss Reinsurance Company (Swiss Re) categorises electromagnetic radiation in the highest risk class. This category also includes hormone-disrupting chemicals, for example. Swiss Re points to the state of the art with regard to health risks associated with electromagnetic radiation (**production 47**).⁵¹

AUVA

112. On behalf of the Austrian insurance company AUVA, research was conducted into the health effects of electromagnetic radiation from mobile phones, at levels well below the ICNIRP exposure guidelines. The studies measured the effects of the 3G and 4G fields. The main results are (**production 48**):

Footnotes.

⁵¹ Page 11: "Anxiety about the potential risks related to EMF has risks. Studies are difficult to conduct, since time trend studies are inconsistent due to the still rather recent proliferation of wireless technology. The WHO has classified extremely low-frequency magnetic fields and radiofrequency electromagnetic fields, such as radiation emitted by cell phones, as potentially carcinogenic to humans (Class 2B carcinogens). Furthermore, a recent ruling by an Italian court suggested a link between mobile phone radiation and human health impairment. Overall, however, scientific studies are still inconclusive regarding possible adverse health effects of EMF. If a direct link between EMF and human health problems were established, it would open doors for new claims and could ultimately lead to large losses under product liability covers. Liability rates would likely rise.

- increasing changes in the EEG in the alpha spectrum, from about 5-10 minutes after the start of exposure, and up to 50 minutes after the end of exposure,
- exposure to mobile phone radiation causes a significant change in the rate of protein production.

113. Both these effects and DNA breaks occurred at low field strengths, where the heat effect (thermal effect) does not play a role.

Lloyd's

114. The UK insurer The Lloyd's of London has carried out research into the health risks of electromagnetic fields (specifically cancer) and concluded that more long-term research is needed into a relationship between exposure to electromagnetic fields and cancer, but several studies have shown or suggested this relationship (**production 49**). Lloyd's points out that the WHO and the European Union recommend using the precautionary principle (more on this below). On this basis, Lloyd's has excluded coverage for claims 'directly or indirectly arising out of, resulting from or contributed to by electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise', according to its General Insurance Exclusions (**production 50**, exclusion 32, p. 8).

Claims and grounds

115. The State's intended and facilitated roll-out of 5G is irreversible, certainly, in the next twenty years, because licences will be granted for that period. Therefore, if the roll-out of 5G is accompanied by health risks, which must be assumed and, in any event cannot be ruled out because of all the above, these are irreversible health risks. These risks are serious in the case of serious diseases such as cancer. Citizens can feel,

from the point of view of their right to self-determination, do not evade this health risk. After all, the rollout of 5G aims at national coverage.

116. These findings call for restraint in the exposure of citizens to electromagnetic radiation. Even assuming that there is at present insufficient scientific evidence on the harmfulness of electromagnetic radiation, there is in any case a scientific dichotomy or uncertainty with a real chance of health risks. Certainly, in the medium and long term.

117. If it were up to the government, the Netherlands would be on the eve of the roll-out of 5G, which, because of its specific characteristics and limitations, will lead to a considerable increase in radiation density, particularly in large cities and densely populated areas. This has been explained before. This increase in radiation density brings the Netherlands to a new point after 2G, 3G and 4G, where it will be necessary to consider whether foreseeable exposure to electromagnetic radiation is justified in terms of health risks. This will require, at the very least, adequate and independent research, including on medium and long-term health risks. The Health Council of the Netherlands has been asked by the Lower House of Parliament to carry out a study on this, but this is 1) not a fully independent study (but a review of the literature) and 2) it is uncertain whether the Health Council of the Netherlands will implement this request. In any case, such a study has not been completed.

118. In view of this state of affairs and the absence of any independent scientific study convincingly demonstrating that the roll-out of 5G with all its consequences does not involve any health risks, according to Stop5GNL, the roll-out of 5G and everything the State does to that end is irresponsible, unacceptable and unlawful. This exposes citizens in the Netherlands unnecessarily to an unacceptable health risk.

119. Stop5GNL is therefore demanding that an emergency provision⁵² be made and a moratorium declared:

- primarily until such time as it has been legally established that there is sufficient scientific consensus that the roll-out of 5G poses no long-term risk to public health,
- in the alternative, until such time as it has been legally established that scientific research by at least five reputable independent scientific institutes has shown that the roll-out of 5G poses no risk to public health in the long term,
- in the further alternative, until such time as the Health Council of the Netherlands has completed its research, as requested by the Lower House of Parliament in a letter dated 5 November 2019,⁵³ and has concluded that the roll-out of 5G does not pose a risk to public health in the long term.

These claims are (legally) explained below.

The (positive) duty of care incumbent on the State

120. The obligation of the State to safeguard the health of its citizens as much as possible (a 'positive duty of care') derives from the following legal (including treaty provisions) regulations.

121. Article 168(1) TFEU:

"A high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities. Union action, which shall complement national policies, shall be directed towards improving public health, preventing human illness and diseases, and obviating sources of danger to physical and mental health. Such action shall cover the fight against the major threats to human health and the prevention of serious diseases and disorders, and the elimination of sources of danger to physical and mental health

Footnotes.

⁵² A case in which a similar moratorium was declared concerns ECLI:NL:GHAMS:2016:4199, in which the court considered: "it would be advisable for the court to 'freeze' the current situation by way of order."

⁵³ See production 36.

health, by promoting research into its causes, its transmission and its prevention, as well as health information and education, and monitoring, early warning of and combating serious cross-border threats to health. (...)"

122. Article 2(1) of the ECtHR (right to life):

"Everyone's right to life is protected by law. No one may be intentionally deprived of life except for the purpose of execution of a judicial sentence for an offence for which the law provides for the death penalty".

123. Article 8(1) ECtHR (right to respect for private and family life):

"Everyone has the right to respect for his private and family life, his home and his correspondence."

124. According to the European Court of Human Rights (ECtHR), Articles 2 and 8 of the ECtHR require governments to take sufficient practical measures to limit harm.⁵⁴ The government has a positive obligation to protect its citizens effectively by taking active action.⁵⁵ In doing so, the government must take the measures that are both necessary and sufficient to protect citizens effectively.⁵⁶ Partly after it becomes aware of risks that endanger the right to life (Article 2 ECtHR) as a result of scientific research.⁵⁷ If the government is aware of a "real and sufficient" threat to the right to life (Article 2 ECtHR), the government must take the necessary measures

Footnotes.

⁵⁴ EHRM 24 July 2014, ECLI:CE:ECtHR:2014:0724JUD006090811 (Brincat and others /Malta), a.o. r.o. 102, 116 and 117.

⁵⁵ ECtHR 9 June 1998 (L.C.B./United Kingdom), paragraphs 36 and 38 and ECtHR 9 December 1994 (Lopez Ostra/Spain), paragraph 58.

⁵⁶ ECtHR 30 November 2004, 48939/99 (Öneryildiz/Turkey), paragraph 89 and ECtHR 28 October 1998, 213452/94, NJ 2000, 134 (Osman/United Kingdom), paragraph 116.

⁵⁷ ECtHR 30 November 2004, 48939/99 (Öneryildiz/Turkey), ECtHR 24 July 2014, ECLI:CE:ECtHR:2014:0724JUD006090811 (Brincat and Others/Malta) and ECtHR 27 January 2009, ECLI:CE:ECtHR:2009:0127JUD006702101 (Tatar/Romania).

immediate risk" to the lives of citizens, it is obliged to take measures to eliminate that risk.⁵⁸

125. When the protection of Articles 2 and 8 ECtHR is at odds with general interests, such as economic interests, the State must find a "fair balance" in them.⁵⁹

126. The ECtHR interprets Article 8 as including protection of the physical environment.⁶⁰ What distinguishes it from Article 2 ECtHR is that it also provides protection against dangers that are not acute. These are cases in which a situation (pollution or nuisance) is so serious that it is not possible to have a private or family life.⁶¹ The intensity and duration of an exposure or nuisance in combination with the duration of the consequences for mental and physical health also play a role.

127. Article 2(1) Charter of Fundamental Rights of the European Union:

"Everyone has the right to life."

128. Article 6 Charter of Fundamental Rights of the European Union:

"Everyone has the right to liberty and security of person."

129. Article 24(1) International Convention on the Rights of the Child:

"States Parties recognize the right of the child to the enjoyment of the fullest possible enjoyment of health and to treatment facilities.

Footnotes.

⁵⁸ ECtHR 28 October 1998, 213452/94, NJ 2000, 134 (Osman/United Kingdom).

⁵⁹ ECtHR 9 December 1994 (Lopez Ostra/Spain), paragraph 58.

⁶⁰ ECtHR 2 October 2011, 36022/97 (Hatton/UK) and ECtHR 30 November 2004, 48939/99 (Öneryildiz/Turkey).

⁶¹ EHRM 2 October 2011, 36022/97 (Hatton/UK) and EHRM 27 January 2009, ECLI:CE:ECtHR:2009:0127JUD006702101 (Tatar/Romania).

of illness and the restoration of health. States Parties shall endeavour to ensure that no child is deprived of his or her right of access to these health care facilities".

130. Article 21 of the Constitution:

"Governmental care shall be directed towards the habitability of the land and the protection and improvement of the environment".

131. Article 22, paragraph 1, of the Constitution:

"Public authorities shall take measures to promote public health".

132. In summary, the State is under a positive duty of care pursuant to the provisions of the abovementioned treaties and laws:

- to recognise that everyone has the right to life and to do what is necessary to protect that right,
- to take the necessary measures to promote the public health of its citizens,
- to implement policies aimed at improving public health and preventing disease,
- to counter and combat major health scourges,
- to provide children with the highest attainable standard of health.

Principle of precaution

133. The precautionary principle is a general principle in EU law, which has become firmly established in national law. The precautionary principle is part of the European Union's efforts to ensure a high level of protection of human health, the environment and consumers. It is based on the idea that

potential adverse effects on human, animal and plant health should be avoided as far as possible.

134. The precautionary principle makes it possible for the European Commission and Member States to take far-reaching measures to prevent possible harmful effects of a product or process. In the event of a potential threat to, among other things, public health, the European Commission or the Member States may, on the basis of this principle, take measures to protect people and the environment from risks that are still uncertain but which could potentially harm them.

135. The precautionary principle has its legal basis in Article 191(2) TFEU.

"Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. Its policy is based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

In this context, harmonisation measures meeting environmental protection requirements include, in appropriate cases, a safeguard clause allowing Member States to take provisional measures for non-economic environmental reasons subject to a Union review procedure".

Communication from the European Commission on the precautionary principle

136. On 2 February 2000, the European Commission adopted a communication on the precautionary principle (**production 51**). The aim of the European Commission's communication was to clarify how the precautionary principle should be applied. Among other things, it states that the precautionary principle should be applied:

Point 1:

"The rapid development of means of communication has contributed to the fear of new risks even before science has had time to

to clear up the problem. Political decision-makers must take account of the fears associated with this awareness and take preventive measures to eliminate or at least reduce the risk to an acceptable minimum".

and

"The precautionary principle covers not only problems in the event of short and medium-term risks but also possible long-term developments of concern for the well-being of future generations".

and

"Whether or not to apply the precautionary principle is to be decided only if the scientific information is incomplete or inconclusive or contains uncertainties and there are indications that the potential effects on the environment or human, animal or plant health could be potentially dangerous and incompatible with the chosen level of protection".

Point 3:

"The Commission therefore considers the precautionary principle to be a general principle to be taken into account, in particular, in the protection of the environment and human, animal and plant health".

137. In point 5.1, the European Commission indicates which factors it considers to be 'necessary to apply the precautionary principle'. In essence, this boils down to the following:

- the precautionary principle is applied in the event of a presumption of potential risk, even if the extent or consequences of such a presumption cannot be fully demonstrated due to insufficient or inconclusive scientific data,

- there is uncertainty as to whether the damage will occur. The precautionary principle can be applied in cases where it is not (yet) possible to identify or quantify a risk. Characteristically, such a threat cannot be properly resolved on the basis of a simple risk analysis, precisely because there is scientific uncertainty about the consequences,
- despite this uncertainty about the occurrence of damage, some form of action must be taken, because of possible effects of an irreversible nature. This requirement emphasises the uncertainty inherent in future developments. Applying the precautionary principle shifts the focus from repairing damage to preventing damage.

138. In this respect the precautionary principle - according to literature and case law - has a positive and a negative side:⁶²

- The negative element indicates which course of conduct an actor may not follow in situations of uncertain risk. In the case of plausible suspicions of unacceptable risks, certain actions must be omitted without adequate precautions. In the case of plausible suspicions of unacceptable risks, certain actions must be taken without taking sufficient precautions,
- the positive element of the precautionary principle indicates which course of action is required in situations of uncertain risk. Scientific uncertainty about threats, combined with suspicions of the existence of a risk, are a reason for proactivity and therefore for (precautionary) action. Action must be taken before damage can occur.

Footnotes.

⁶² E.R. de Jong, 'Precautionary Obligations', on liability for uncertain risks, The Hague 2016: BOOM (thesis), p. 68.

139. The ECtHR has explicitly recognised the precautionary principle in the context of the protection of the right to life and the protection of the environment (Articles 2 and 8 ECtHR).⁶³ Where an activity may present a substantial danger or risk to life or health and that risk has not yet materialised, there is in principle a positive obligation to act. This is the case if the government has sufficient scientific or technical knowledge, even if it cannot be said with certainty that a certain consequence will occur. The absence of such certainty does not justify abandoning measures to prevent serious and irreversible damage.⁶⁴

140. It is also explicitly preached within the government that uncertain risks must be managed at an early stage and that the precautionary principle is leading in determining the (policy-related) handling of uncertain risks.⁶⁵ Precisely also where new technologies are concerned. For example, the Scientific Council for Government Policy (WRR) (report: 'Uncertain Safety, Physical Safety Responsibilities') (**production 52**⁶⁶) and the Health Council of the Netherlands (report: 'Precaution with Reason) in 2008 (**production 53**⁶⁷), at the request of the government, recommended that the precautionary principle should form the basis of policy on new technologies. The WRR concludes that 'Precaution as a constitutional task'.⁶⁸ The Health Council of the Netherlands also puts the precautionary principle first when dealing with uncertainties. For example, the Health Council of the Netherlands states: 'This means that the precautionary principle applies to issues that are characterised by uncertainty.'⁶⁹ According to the Health Council of the Netherlands, it is therefore necessary to determine whether

Footnotes.

⁶³ EHRM 27 January 2009, ECLI:CE:ECtHR:2009:0127JUD006702101 (Tatar/Romania).

⁶⁴ EHRM 27 January 2009, ECLI:CE:ECtHR:2009:0127JUD006702101 (Tatar/Romania).

⁶⁵ Parliamentary documents II 2008/09, 28089, 23; Parliamentary documents II 2012/13, 29338, 124, p. 1; Parliamentary documents II 2013/14, 28663, 55, p. 11-12.

⁶⁶ Because of its size, Stop5GNL only consults the first pages with the summary below.

⁶⁷ Because of its size, Stop5GNL only consults the first pages with the summary below.

⁶⁸ Page 20.

⁶⁹ See production 53, page 16.

is a 'plausible risk'. According to the Health Council of the Netherlands (...) this is the case if at least a few recognised experts in the relevant field are concerned about the threat. "⁷⁰ On the basis of the above councils, it remains to be seen whether this requirement has been met with regard to the health risks of 5G.

141. Already in 2009, the government agreed that these principles should serve as a starting point for the regulation of new technologies.⁷¹

142. In the same vein, the Council of Europe confirmed in its resolution 1815 of 2011 on the health risks of electromagnetic radiation that 'waiting for higher levels of scientific and clinical evidence before taking action to prevent known risks can lead to very high health and economic costs, as has been the case with asbestos, leaded fuel and tobacco'.⁷² Here too, therefore, explicit reference is made to the precautionary principle where the risks of electromagnetic radiation are concerned.

The role of the precautionary principle in (public) liability law

143. The precautionary principle is not a concrete legal norm and does not provide an unequivocal means of creating a ready-made solution for every situation. The precautionary principle must be seen in the perspective of protecting the foundations of life from the threats and risks posed by modernity.⁷³ The precautionary principle has become so commonplace that it expresses society's current understanding of the need to protect the foundations of life from the threats and risks posed by modernity

Footnotes.

⁷⁰ See production 53, page 17.

⁷¹ Parliamentary Papers II 2008/09, 29338, 80, p. 1 et seq.

⁷² See production 26.

⁷³ E.E. Krikke, "Where precaution can play a role" in: van Boom, W.H, van Kogelenberg, M, & Tuil, M.L. (2012). Booby traps, pitfalls and instincts in civil law.

the necessary handling of uncertain risks. Certainly, also within (liability) law.⁷⁴

144. The precautionary principle fills in the open norms of private law, also according to Spier.⁷⁵ If disproportionate risks are taken in situations with potentially harmful health effects, this 'colours' the interpretation of the concept of unlawfulness. This problem must be approached from the perspective of unwritten tort law.⁷⁶ Ultimately, it comes down to determining what action may be expected of an actor when, due to scientific uncertainties about the existence of a risk, it is not possible to determine whether and to what extent the interests of another party may be affected by an act or omission.⁷⁷

145. The Supreme Court's case law on asbestos suggests that creating or maintaining an uncertain high-risk situation on the basis of unwritten law may be unlawful.⁷⁸ Although this case law often concerned the required handling of known risks, it shows that the fact that there is uncertainty in science about the existence, nature or seriousness of a risk in no way excludes the need to anticipate that risk according to standards of social care. This case law shows that, in the opinion of the Supreme Court, no absolute or far-reaching degree of certainty about the existence of a risk is required before an actor can be required to take (precautionary) measures to control or avert a risk.

Footnotes.

⁷⁴ E.R. de Jong, 'Precautionary obligations', on liability law standards for uncertain risks, The Hague 2016: BOOM (dissertation), p. 77.

⁷⁵ J. Spier, 'Uncertainties and the state of the art: a legal nightmare', *Journal of Risk Research* (14) 2011-4, p. 505.

⁷⁶ E.R. de Jong, 'Precautionary obligations', on liability law standards for uncertain risks, The Hague 2016: BOOM (dissertation).

⁷⁷ A.Ch.H. Franken, 'The precautionary principle in liability law', *AV&S* 2010/25, afl. 5, pp. 186 et seq.

⁷⁸ O.a. ECLI:NL:1993:AD1907 (Cijsouw I), ECLI:NL:HR:ZC2721 (Cijsouw II), NJ 20098/103 (Eternis/Horsting), ECLI:NL:HR:2006:AU6927 (Heesbeen/Van Buuren), ECLI:NL:HR:2013:BZ1721 (Lansink/Ritsma).

146. A similarity is found - in the literature - with the danger setting jurisprudence (Kelderluik).⁷⁹ This jurisprudence has established a line in which a small chance of serious damage may already require precautionary measures to be taken.⁸⁰ As Spier also believes, it is not justifiable that creating a danger for a single person (such as opening a cellar door) may constitute unlawful danger setting, but creating an uncertain danger that could harm many people is not.⁸¹

147. In short, in accordance with unwritten law, the precautionary principle must be observed if there is reason to do so. Violation of this principle is contrary to what is customary in society according to unwritten law (Article 6:162 of the Civil Code). A precautionary obligation is the obligation to act proactively in cases where it is impossible to determine the (harmful) consequences of a specific act or omission on the basis of objective scientific standards. Before the existence of a risk has been scientifically demonstrated and before damage has occurred or may occur, an actor must make an effort to control the uncertain risk and reduce it to an acceptable level.⁸²

148. In the case of the government, this means that if the government does not protect its citizens - in situations where the precautionary principle can or must be applied - from unacceptable (because: substantial and irreversible) health risks, it is an unlawful act.

Footnotes.

⁷⁹ ECLI:NL:HR:1965:AB7079 (Basement hatch).

⁸⁰ Cf. ECLI:NL:HR:1982:AG4306 (Caustic soda), ECLI:NL:HR:2004:AR3290 (Hertel/Van der Lugt) and ECLI:NL:HR:2005:AT8782 (Eternit/Horsting).

⁸¹ J. Spier, 'Uncertainties and the state of the art: a legal nightmare', *Journal of Risk Research* (14) 2011-4, p. 504.

⁸² For all this: E.R. de Jong, 'Precautionary Obligations', on liability law standards for uncertain risks, The Hague 2016: BOOM (dissertation), p. 87.

149. This unlawful nature becomes stronger if the same government not only fails to take precautions, but even creates or brings about the harmful situation, as in this case by organising or facilitating the rollout of 5G.

The Government's positive duty of care and the precautionary principle in the Urgenda judgment

150. Reference is made to the Urgenda case. The relevant question was whether the State can be blamed for not having taken sufficient measures in the light of the danger of (potentially harmful) climate change. In this respect, on the one hand there is an appeal to a specific treaty agreement (which does not play a primary role in this case) and on the other hand there is an appeal to tort law, which is coloured by the precautionary principle, in relation to positive duty of care on the part of the government. The District Court of The Hague upheld the claims and took into account, among other things, circumstances similar to the Kelderluik criteria:⁸³

- nature and extent of the damage caused by climate change,
- familiarity and foreseeability of this damage,
- the likelihood that dangerous climate change will occur,
- the nature of the State's conduct,
- the objectionability of precautions to be taken,
- the freedom of policy vested in the State in the performance of a public duty.

151. The Court of Appeal of The Hague ratified this judgment of the District Court.⁸⁴ The Court of Appeal considered, among other things, Articles 2 and 8 ECtHR (ground 43):

Footnotes.

⁸³ ECLI:NL:RBDHA:2015:7145 (Urgenda).

⁸⁴ ECLI:NL:GHDHA:2018:2591 (Urgenda).

"In summary, therefore, the State has a positive obligation under Article 2 ECtHR to protect the lives of citizens within its jurisdiction, while Article 8 ECtHR creates an obligation to protect the right to home and private life. This obligation applies to all activities, public and non-public, which may jeopardise the rights thus protected, and certainly applies in the case of industrial activities which, by their nature, are dangerous. When the State is aware that there is a real and imminent danger, it must take preventive measures to prevent the infringement as much as possible. In the light of this, the Court will assess the alleged (imminent) climate dangers".

in conclusion with respect to the reliance on Articles 2 and 8 ECtHR (paragraph 45):

"According to the foregoing, in the opinion of the Court of Appeal a real threat of a dangerous climate change, as a result of which there is a serious risk that the current generation of residents will be confronted with loss of life and/or disruption of family life. As the Court has considered above, Articles 2 and 8 ECtHR impose an obligation on the State to provide protection against this real threat.

152. Specifically with regard to the precautionary principle, the Court of Appeal considered (paragraph 63, underlining TB):

"The Precautionary Principle, a generally accepted principle of international law enshrined in the UN Climate Convention and confirmed in the case law of the ECtHR (Tătar/Romania, ECtHR 27 January 2009, no. 67021/01 paragraph 120), precludes the State from arguing that it must take into account the uncertainties of climate change and other uncertainties (e.g. in ground 8). After all, these uncertainties may also imply that, for example by the occurrence of a tipping point, the situation will be worse than currently taken into account. Therefore, the fact that there is no absolute scientific certainty about the effectiveness of the ordered reduction scenario does not mean that the State is entitled to refrain from taking further measures.

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let. Sufficient is its far-reaching plausibility, as described above."

153. The Supreme Court dismissed the appeal in cassation, following the legal interpretation of the court of appeal.⁸⁵ Specifically with regard to the precautionary principle in relation to Articles 2 and 8 of the ECtHR, the Supreme Court considered:⁸⁶

"The obligation to take appropriate measures under Articles 2 and 8 ECtHR also implies that states are obliged to take preventive measures against the danger, even if it is not certain that the danger will materialise. This is consistent with the precautionary principle. If it is clear that the 'real and immediate risk' referred to in 5.2.2 and 5.2.3 above exists, States have an obligation to take appropriate measures without a margin of appreciation. States are free to choose the measures to be taken, albeit they must actually be reasonable and appropriate. The obligation under Articles 2 and 8 ECtHR to take appropriate measures against an imminent threat may relate to both so-called mitigation measures (measures to prevent the realisation of the threat) and adaptation measures (measures to cushion or mitigate the consequences of the realisation of the threat). According to ECtHR case law, which measures are appropriate in the given case depends on the circumstances of that case'.

The claims

154. As explained above, the State threatens to act unlawfully by organizing or facilitating the rollout of 5G without sufficient scientific consensus on its harmfulness and despite the many objective scientific studies showing a causal link between electromagnetic radiation and (serious) diseases and disorders. As a result, citizens are at risk of being exposed by the State to an unavoidable and unacceptable health risk from which they cannot escape.

Footnotes.

⁸⁵ ECLI:NL:HR:2019:2006.

⁸⁶ ECLI:NL:HR:2019:2006, paragraph 5.3.2.

155. Section 3:296 of the Dutch Civil Code provides that the court can oblige a person who is obliged to do something or refrain from doing something to another person. This provision also applies to obligations arising from a wrongful act.⁸⁷ In this case, this is the obligation of the State to refrain from the wrongful act. In order for such a claim to be awarded, it is not required that damage has occurred. A (real) threat of wrongful act is sufficient. Pursuant to Section 3:305a of the Dutch Civil Code, a foundation or association with full legal capacity may bring such a claim.

156. In view of all the above, Stop5GNL deems it justified to prohibit the State from performing (legal) acts or conduct that promote or enable the roll-out or application of 5G technology in the broadest sense of the word, including the auction of the frequencies intended for 5G (700, 1,400 and 2.100 MHz and 3.5 and 26 GHz), licensing the use of these frequencies, allowing the use of frequencies already made available (800, 900, 1,800 and 2,100 MHz and 2.6 GHz) for 5G, granting test licences for frequency space intended for 5G and otherwise facilitating the use of public funds for 5G.

Primarily

157. Stop5GNL is primarily claiming the ban until it has been legally established that, according to the best scientific knowledge, the roll-out or application of 5G does not pose a risk to public health in the long term. This is only justified if there is sufficient scientific consensus and thus a sufficient degree of certainty that the roll-out of 5G is safe. In order to obtain an independent opinion on this

Footnotes.

⁸⁷ C.J.J.C. van Nispen, Sanctions in property law (Monographs Nieuw BW, volume A11), Deventer: Kluwer 2003, p.21.

Involves Stop5GNL in the claim that must be irrevocably decided in court.

Alternatively

158. In case the Court in preliminary relief proceedings should find this claim too far-reaching for any reason, Stop5GNL will claim the prohibition as a subsidiary claim until the moment that scientific research by at least five reputable independent scientific institutes has shown that the roll-out or application of 5G does not constitute a danger to public health in the long term. The number of five eight Stop5GNL a representative number of studies. In order to assess the quality of studies objectively, Stop5GNL considers it justified that an irrevocable legal decision must have been made that the conditions for the end of the ban have been met.

More subsidiary

159. In the event that the Court in preliminary relief proceedings also finds the subsidiary claim too far-reaching, Stop5GNL will claim a further subsidiary prohibition until the Health Council of the Netherlands has completed its investigation, as requested by the Lower House of Parliament in a letter dated 5 November 2019, and has conclusively concluded that the roll-out of 5G poses no danger to public health in the long term.

Penalty payment

160. Stop5GNL is claiming to attach a penalty payment to a conviction, which is forfeited by the State in the event of violation. Where in the past the State was not subject to a penalty payment order because the parties could trust that the State would execute a conviction, this is no longer the case. It should be taken into account that the State is not automatically convinced of its wrongdoing by a court judgment, whereas the State is not forfeited in the event of violation.

Moreover, a penalty payment may encourage prompt compliance.⁸⁸ Precisely because Stop5GNL has an interest in the immediate compliance of the State with a conviction - particularly because the rollout of 5G will in principle be irreversible - Stop5GNL considers it justified to attach a penalty payment to a conviction.

161. A penalty payment of EUR 10,000 per day or part of a day that the State does not comply with a conviction after service of the judgment to be given is real, given the importance of the case.

Invitation for consultation

162. On behalf of Stop5GNL, her lawyer called on the Minister of Economic Affairs, Agriculture and Innovation by letter of 19 December 2019, to stop the rollout of 5G or to discuss a voluntary cessation of the rollout of 5G (**production 54**). The Minister initially did not respond to this letter. The Minister of VWS received a copy of this letter but did not react either.

163. It was only on 27 January 2020, after the Stop5GNL attorney at law had requested dates for the preliminary relief proceedings from the State Attorney's office, that the Stop5GNL attorney at law received a letter in which the deputy director of Digital Economy, on behalf of the State Secretary for Economic Affairs, announced that he was prepared to enter into consultations (**production 55**). Following this, on 17 February 2020, consultations took place between the board of Stop5GNL and representatives of the Ministry of Economic Affairs (in the presence of mutual lawyers). These consultations did not result in the State voluntarily complying with the claim, as evidenced by an e-mail message from the State's attorney on 24 February 2020 (**productionn 56**).

Footnotes.

⁸⁸ Cf. Text and Commentary on Section 611a of the Dutch Code of Civil Procedure, Note 10d.

Position of the State

164. Stop5GNL is not aware of any position of the State other than those described and refuted above.

165. It is noteworthy, however, that during the consultations on 17 February 2020 the deputy director of the Digital Economy took the position that the State has no interference in and influence on the rollout of 5G; this would have been left entirely to market parties. The Deputy Director of Digital Economy considered the responsibility for the upcoming frequency auctions of the 700, 1,400 and 2,100 MHz, 3.5 GHz and 26 GHz frequency bands to be independent of 5G, since market parties can also apply other technologies to them. This reasoning is purely theoretical, and this defence cannot succeed. Although the frequencies mentioned may theoretically have other applications, it is widely known and accepted that they will be auctioned to enable the roll-out of 5G. Stop5GNL points out the following:

- by the State itself, the roll-out of 5G is consistently linked to the upcoming frequency auctions, thus making an explicit link between the 700, 1,400 and 2,100 MHz, 3.5 GHz and 26 GHz frequency bands and the application of 5G. For example, in the Digital Connectivity Action Plan,⁸⁹ the offer letter for this,⁹⁰ the Mobile Communication Policy Document⁹¹ and even in correspondence about the auction regulation for consultation.⁹² In debates in parliament, the State Secretary is invariably

Footnotes.

⁸⁹ See production 4, e.g. p. 7: "for the roll-out of 5G in the Netherlands, new spectrum must become available and local policy must be in place for the installation of the many 5G antennas. (...)"

⁹⁰ See production 7, e.g. p. 3: 'First of all, the Cabinet gives mobile communications providers certainty that frequencies will be issued on a nationwide exclusive basis, including for the 700, 1400 and 2100 MHz bands, in principle for 20 years. This provides certainty for the roll-out of the new 5G networks. Another important frequency for the roll-out of 5G is the 3.5 GHz band'.

⁹¹ See production 5, e.g. p. 32: "5G: roadmap and policy for future frequency bands".

⁹² See production 6, e.g. p. 1: "I discussed the NMC with your Chamber during the debate on the roll-out of 5G on 4 July 2019 (...). I also promised to inform your Chamber as soon as the consultation of the auction regulations starts".

The State Secretary repeatedly refers to the need for the relevant networks for 5G technology.⁹⁴ This is also the case in the answers to parliamentary questions by MP Van Raan.⁹⁵ A letter from the State Secretary for Economic Affairs to the House of Representatives on the safety of 5G networks, in which the auction of the 700, 1,400 and 2,100 MHz frequencies is once again given priority, is even referred to on the House of Representatives' website as 'the auction of 5G frequencies' (**production 57**);

- the 'field strength measurements at 5G test sites' were carried out at the relevant frequencies (to be auctioned).⁹⁶ The report also states: 'The intended 5G frequency bands have yet to be auctioned (including 700 MHz, 1400 MHz and the 2100 GHz band). The 3.5 GHz band, also intended for 5G, is currently allowed (...),
- The Radiocommunications Agency mentions on its website that the frequency bands to be auctioned, starting with the 700 MHz frequency band, are exclusively intended for 5G technology (**production 58**),
- the availability of the 700, 1400 and 2100 MHz, 3.5 GHz and 26 GHz frequency bands follows from article 54 of the Telecom Code, which explicitly states that these frequencies are necessary "to facilitate the roll-out of 5G". The Explanatory Memorandum to the bill to amend the Telecommunications Act also undoubtedly makes the link.⁹⁷

Footnotes.

⁹³ Among other things, productions 14 and 15.

⁹⁴ See e.g. production 14, p. 8 and production 15, p. 10 and 11.

⁹⁵ See production 18.

⁹⁶ See production 8.

⁹⁷ See production 11, a.o. point 2.3.

166. All in all, the State's assertion that it has no influence or grip on the rollout of 5G is incorrect. The State is responsible for the auctioning of frequencies intended (exclusively) for the application of 5G technology.

Evidence offer

167. Stop5GNL offers to provide further evidence, including the hearing of witnesses, who can testify about the health risks associated with electromagnetic fields and specifically 5G. They can corroborate Stop5GNL's claims about the specific characteristics of 5G, the frequency bands designated for that purpose and the Massive MIMOs and small cells to be used for that purpose. In any case, as a witness, Stop5GNL is contributing to the Swedish Professor L. Hardell, who is investigating the relationship between environmental factors such as electromagnetic radiation and cancer. Italian courts have set great store by his views.

168. Stop5GNL also offers counter evidence in case the preliminary relief judge deems one or more statements made by the State (for the time being) proven. The specification requirement does not apply to this.

The claim

Stop5GNL requests the Interim Injunction Judge by judgment, enforceable in stock,

Primary

1. Prohibit the State from performing (legal) acts or conduct that promote or enable the roll-out of 5G in the broadest sense of the word, including the auction of the 700, 1,400 and 2 intended for 5G. 100 MHz and/or 3.5 and 26 GHz frequency bands, granting licences for the use of these frequencies, allowing the use for 5G technology of frequencies already made available (800, 900, 1,800 and 2,100 MHz and 2.6 GHz), granting test licences for frequency space intended for 5G and otherwise facilitating the use of public funds for 5G,

primary: until such time as it has been irrevocably established in court that, according to the best scientific knowledge, the roll-out or application of 5G technology does not (in the long term) pose a threat to public health,

in the alternative: until such time as it has been irrevocably established in court that scientific research by at least five reputable independent scientific institutes has shown that the roll-out or application of 5G technology does not pose a risk to public health (in the long term);

in the further alternative: until such time as the Health Council of the Netherlands has completed its research, as requested by the Lower House of Parliament in a letter dated 5 November 2019, and has conclusively concluded that the roll-out of 5G does not pose a risk to public health (in the long term);

on pain of forfeiture to Stop5GNL of a penalty payment of EUR 10,000 per day or part thereof that the State fails to comply with this sentence after service of the judgment to be rendered in this case,

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Alternatively

2. to make any other provision which the interim relief judge considers appropriate and which does justice to the interests of Stop5GNL,

Both primary and subsidiary

3. order the State to pay the costs of these proceedings within fourteen days after the date of the judgment and, if payment is not made within that period, to increase the statutory interest as from fourteen days after the date of the judgment.

The costs of this writ are for me, bailiff,

Exploit cost EUR

VAT EUR

----- +

Total EUR

Bailiff

The costs of this writ have/have not been increased by 21% since my client/contractor can/does not deduct the turnover tax charged to him/her on the basis of the Turnover Tax Act 1968 and expressly declares this.

Attorney at law

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Production overview

1. Articles of Association Stop5GNL,
2. exploration of Stratix 'Small cells and massive MIMO,
3. letter from the Minister of Economic Affairs dated 7 December 2016 on frequency policy,
4. Digital Connectivity Action Plan,
5. Mobile Communications Memorandum 2019,
6. Letter from the State Secretary of EKZ dated 5 December 2019 with draft auction regulations for consultation,
7. offer letter Digital Connectivity Action Plan dated 2 July 2018,
8. report on field strength measurements at 5G test sites dated 23 September 2019,
9. Directive 2018/1972 (TelcomCode),
10. draft amendment to the Telecommunications Act (implementation of the Telecommunications Code),
11. explanatory memorandum to the bill to amend the Telecommunications Act,
12. Explanatory Memorandum to the Telecommunications Act amendment to the Internet Consultation (governmental website),
13. Recommendation 1999/519/EC,
14. report on the debate in the Lower House of Parliament on 5 June 2018 (no. 31: roll-out of the 5G network),
15. Report on the Lower House debate of 4 July 2019 (no. 40: roll-out of 5G),
16. Answer to Parliamentary questions of 16 April 2019 (5G and health),
17. Parliamentary questions by Van Raan (PvdD) of 9 September 2019,
18. Question answered by Member of Parliament Van Raan on 20 December 2019,
19. ICNIRP exposure guidelines 1998,
20. memo EMV Knowledge Platform on changes to ICNIRP exposure guidelines 2010,
21. Comparison of International policies on electromagnetic fields,
22. Sarah J. Starkey, Inaccurate official assessment of radiofrequency safety by the Advisory Group on Non-ionising Radiation dated 30 September 2016,
23. Court of Versailles judgment of 4 February 2009 (Bouygues Telecom);

24. European Parliament resolution of 2 April 2009,
25. Council of Europe Resolution 1815 of 27 May 2011,
26. summary and explanatory statement of resolution 1815,
27. messages from the EMF Knowledge Platform on its website,
28. offer letter Interim evaluation Electromagnetic Fields and Health Programme dated 23 September 2015,
29. Program evaluation Electromagnetic Fields & Health (EMF&H),
30. letter from Stichting EHS to the Vaste Commissie VWS and EZK inz. a.o. ZonMw programme,
31. Report Health Council of the Netherlands 18 October 2011, Influence of radio frequency telecommunication signals on children's brains,
32. letter from the State Secretary for Infrastructure and the Environment dated 19 August 2013,
33. letter from the State Secretary for Infrastructure and the Environment of 16 October 2014,
34. letter from the State Secretary for Infrastructure and the Environment dated 1 December 2017,
35. International Agency for Research on Cancer Monograph Working Group' report of the World Health Organization (WHO) dated 22 June 2011,
36. Letter from the Lower House of Parliament to the Health Council of the Netherlands of 5 November 2019 with questions,
37. Overview of relevant studies by the Environmental Health Trust,
38. report by ECOLOG-Instituut (Mobile Telecommunications and Health),
39. project progress summary Reflex study,
40. WHO classification,
41. BioInitiative report (2012),
42. report research Yakymenko et a.e.,
43. Publication Ramazzini Institute,
44. report NTP,
45. 5G-appeal.

- 46.compilation of measures, advice and judgements abroad,
- 47.report Swiss Re SONAR (Emerging risk insight),
- 48.publication AUVA,
- 49.Lloyds report: electro-magnetic fields from mobile phones,
- 50.General Insurance Exclusions Lloyd's,
- 51.commission communication on the precautionary principle,
- 52.WRR report: 'Uncertain Safety, Physical Safety Responsibilities',
- 53.Health Council of the Netherlands report: 'Precaution with reason',
- 54.letter from Mr Beukers to the Minister of EKZ dated 19 December 2019,
- 52.letter from H. Uijt de Haag to Beukers in consultation,
- 56.e-mail message Mr Kingma to Mr Beukers dated 24 February 2020,
- 57.letter from the State Secretary for Economic Affairs to the Lower House of Parliament dated 3 February 2020 with explanatory notes on the Lower House's website,
- 58.Website of the Netherlands Radiocommunications Agency in 5G frequencies.

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