

Corinne Widmer Lüchinger*

Forever Chemicals and Tort Law: Limitation

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Abstract: In its decisions on asbestos-related mesothelioma claims, the European Court of Human Rights (ECtHR) has held that where it is scientifically proven that it is impossible for a person to know that they suffer from a certain illness, this must be taken into account for the purposes of limitation. This contribution explores from a comparative perspective which conclusions can (or cannot) be drawn from these decisions for future tort claims relating to forever chemicals. In particular, it discusses the notion of ‘illness’, knowledge of which must be possible under the ECtHR’s case law; whether the current difficulties of establishing causation between exposure to forever chemicals and an illness might one day have the same impact on limitation as the impossibility of knowing that one is ill before the limitation period has expired; and the potential impact of increased-risk claims on limitation. While the focus lies on personal injury claims, property claims are also addressed.

I Introduction

When I was asked to join the panel for this year’s special session on forever chemicals (PFAS¹) and give a talk on limitation (or prescription), my first thought was that there were a great many similarities with asbestos-related claims for mesothelioma. It seemed that in essence, I was being asked to consider the implications of the decisions of the European Court of Human Rights in the matters of *Howald*

¹ Perfluoroalkyl and Polyfluoroalkyl Substances. On the concerns raised by the use of this group of man-made chemicals, see eg *JC Lee/S Smaoui/J Duffill/B Marandi/T Varzakas*, Research Progress in Current and Emerging Issues of PFASs’ Global Impact: Long-Term Health Effects and Governance of Food Systems, *Foods* 2025, 14, 958, <<https://doi.org/10.3390/foods14060958>>; see also the references below at fn 10.

***Corresponding author: Corinne Widmer Lüchinger**, Professor of private law, comparative law and private international law, University of Basel, E-Mail: corinne.widmer@unibas.ch

*Moor*² and *Jann-Zwicker*³. Both cases dealt with mesothelioma claims and so-called ‘objective’ or ‘absolute’ limitation periods in Swiss law, ie limitation periods which start to run on the date the duty was breached, regardless of whether damage has occurred and regardless of whether the victim of the tort has any knowledge of the breach.⁴ In both cases, Switzerland was held to have violated art 6(1) of the European Convention on Human Rights (ECHR).⁵

In the decision of *Howald Moor*, the European Court of Human Rights discussed how the limits of what it is scientifically possible to know must be taken into account in national laws on limitation. Specifically, the Court made it clear that where it is scientifically proven that it is *impossible* for a person to know that they suffer from a certain illness, this must, and will, have an impact on limitation.⁶ It made this exact same point again ten years later in *Jann-Zwicker*.⁷

The current limits of science are also a significant obstacle where forever chemicals are concerned, and that is where the similarity seemed to lie. However, matters turned out to be more complicated.

In the case of mesothelioma, what is impossible is detecting the disease *before* it has developed, which typically only happens after a decades-long latency period. It is, in other words, a problem of *timing*. Once the disease has broken out, it will, as a rule, be fairly straightforward to identify the source, as mesothelioma is considered to be a signal tumour for exposure to asbestos, specifically work-related exposure to

2 ECtHR *Howald Moor and Others v Switzerland*, 11.3.2014, nos 52067/10 and 41072/11. On this case, see C Widmer Lüchinger, Die Verjährung bei Asbestschäden: Eine Standortbestimmung nach dem EGMR-Entscheid *Howald Moor et autres c Suisse*, Zeitschrift des Bernischen Juristenvereins (ZBJV) 2014, 460, 473ff; F Krauskopf, EMRK-widriges Verjährungsrecht! Jusletter 24.3.2014; D Husmann, Arbeitsrecht und EMRK, Aktuelle Juristische Praxis (AJP) 2016, 487, 491ff; N Moser, Die Verjährung von haftpflichtrechtlichen Forderungen bei einer Verletzung der körperlichen Integrität (2017) 72ff; C Müller, Der Europäische Gerichtshof für Menschenrechte verurteilt die Schweiz wegen der absoluten Verjährung der Ansprüche von Asbestopfern, Jusletter 24.3.2014.

3 ECtHR *Jann-Zwicker and Jann v Switzerland*, 13.2.2024, no 4976/20. On this case, see C Widmer Lüchinger, Verjährung und Asbest: Die Schweiz wird erneut durch den Europäischen Gerichtshof für Menschenrechte verurteilt, Jusletter 8.4.2024; C Müller, Bis repetita placent: Der Europäische Gerichtshof für Menschenrechte verurteilt die Schweiz erneut wegen der absoluten Verjährung der Ansprüche von Asbestopfern, Jusletter 8.4.2024.

4 On the Swiss law provisions on limitation, see below under II A 2.

5 See the references in fn 2 and fn 3.

6 ECtHR *Howald Moor* nos 52067/10 and 41072/11, at [78].

7 ECtHR *Jann-Zwicker* no 4976/20, at [79]. In light of *Howald Moor*, the decision in *Jann-Zwicker* did not come as a surprise, despite the Swiss government’s position that the facts were materially different; see *Jann-Zwicker* (fn 3) at [71] ff; C Widmer Lüchinger, Die Schweiz, der Europäische Gerichtshof für Menschenrechte und (schon wieder) die Verjährung bei Spätschäden: der Fall Jann gegen die Schweiz, in: Festschrift Stephan Breitenmoser (2022) 1075ff.

asbestos.⁸ Of course, where a victim was exposed to asbestos at more than one workplace, they will face the evidentiary challenge of establishing which of the different work-related sources actually caused their disease.⁹ Whilst this is currently also impossible, the connection between the substance itself, ie asbestos, and the disease, ie mesothelioma, will not be in doubt.

The situation is different where forever chemicals are concerned. Although there are indications that such chemicals may have adverse effects on reproduction, the liver, kidneys and the immune system and be linked to low infant birth weight, cancer and thyroid disruptions,¹⁰ none of these diseases is a ‘signal disease’ for exposure to forever chemicals in the same way as mesothelioma is a ‘signal tumour’ for exposure to asbestos. If, for example, a person who has been exposed to forever chemicals develops cancer, it will (because of the current limits of human science) usually be impossible to establish a causal link between the contaminant and the disease. Under traditional tort law doctrine, such a person’s claims will fail, regardless of when the disease manifests itself. Here, unlike in *Howald Moor* and *Jann-Zwicker*, the impossibility does not relate to the proof of *injury* within the limitation period, but to the proof of *causation*. The question which arises is whether this is a material difference or whether the reasoning in *Howald Moor* and *Jann-Zwicker* would also apply to such claims.

A further issue relates to so-called ‘subjective’ or ‘relative’ limitation periods, ie limitation periods which are triggered by the injured party’s *knowledge* of the facts which are material for bringing a claim. In the case of injuries related to forever chemicals, it is unclear when a party might be said to have such ‘knowledge’. Although subjective limitation periods were not addressed by the European Court of Human Rights in *Howald Moor* or *Jann-Zwicker*, the decisions may still have something to teach us about them.

8 See eg, *JK Thompson/CM Westbom/A Shukla*, Malignant Mesothelioma: Development to Therapy, *Journal of Cellular Biochemistry* 115 (2014) 1, 4; *V Neumann/S Löseke/D Nowak/FJF Herth/A Tannapfel*, Malignes Pleuramesotheliom: Inzidenz, Ätiologie, Diagnostik, Therapie und Arbeitsmedizin, *Deutsches Ärzteblatt* 2013, 110 (18) 319f, available at <www.aerzteblatt.de/archiv/137725> (12.6.2025).

9 Cf *Fairchild v Glenhaven Funeral Services Ltd* [2002] United Kingdom House of Lords (UKHL) 22, [2002] 3 All England Law Reports (All ER) 305, [2003] 1 Appeal Cases (AC) 32, [2002] 3 Weekly Law Reports (WLR) 89; from a Swiss law perspective, see *C Widmer Lüchinger*, Zur Kausalität bei Asbestschäden, in: *Festschrift Jean Fritz Stöckli* (2014) 777ff.

10 For an overview of the potential health risks, see eg, US *Environmental Protection Agency*, Our Current Understanding of the Human Health and Environmental Risks of PFAS, available at <<https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>> (12.6.2025); *TA Bloomfield/SR Caravello/NM Clabbers/SC Judkins/SC Mogharabi*, PFAS Litigation: Emerging Trends for the Latest Emerging Contaminant, *Natural Resources & Environment* 36 (2021) 9ff.

As things stand, all these questions involve a certain amount of gazing into a crystal ball. We do not know whether it will ever be possible to establish a causal link between forever chemicals and certain types of diseases. As long as this difficulty continues, limitation will necessarily take a backseat. However, it is worth thinking about these questions before they arise. To that end, this paper is based on the premise that at some point in the future, it will become scientifically possible to establish causation between exposure to PFAS and a person's illness. The paper is further based on the premise that by exposing the injured person to forever chemicals (or by omitting to protect them from such exposure), the defendant has breached a duty toward that person.

Although the focus will lie on personal injury claims, limitation issues regarding property damage will also be briefly addressed.¹¹

II Personal injury claims

The starting point of this section will be the aforementioned cases of the European Court of Human Rights in the matters of *Howald Moor* and *Jann-Zwicker*: what did the Court say, and equally importantly, what did it not say? And what, if any, lessons can be learnt for future tort claims relating to forever chemicals?

A Setting the stage: *Howald Moor* and *Jann-Zwicker*

1 The facts

The cases were brought by surviving family members of Mr Moor and Mr Jann, respectively. Both men had died from asbestos-related mesothelioma. Mr Moor had been exposed to asbestos through his work until 1978, for a period of at least 13 years. He was diagnosed with malignant pleural mesothelioma in May 2004, from which he died in November 2005. Before his death, he initiated proceedings against his former employer, Alstom SA, for breach of contract. After his death, his two daughters continued proceedings against Alstom SA in their capacity as his heirs.¹²

¹¹ See below under III.

¹² ECtHR *Howald Moor* nos 52067/10 and 41072/11, at [7] ff and [28] ff. Other claims which were also at issue, in particular those of the wife and daughters against the SUVA, ie the Swiss Institute for Accident Insurance, an independent institution under Swiss public law, will not be discussed further in this paper. For a detailed analysis of the case, see the references in fn 2.

Unlike Mr Moor, Mr Jann, a teacher, had not been exposed to asbestos through his work. Rather, the alleged exposure had taken place during his childhood. He had lived with his parents in a house rented from the Swiss company Eternit AG. The house was in the immediate vicinity of the factory grounds where asbestos was processed and where Mr Jann often played as a child. In 1972, at the age of 19, he moved away. 32 years later, in the autumn of 2004, he was diagnosed with malignant pleural mesothelioma. He died of the disease in October 2006, two years after diagnosis and shortly after having initiated criminal proceedings (which were later discontinued). In July 2009, Mr Jann's widow and son brought an action in tort and contract against, *inter alia*, Eternit (Schweiz) AG as the alleged successor of the company which had operated the factory and owned the house in which Mr Jann had grown up.¹³

In both *Howald Moor* and *Jann-Zwicker*, the Swiss cantonal courts as well as the Swiss Federal Court held that the applicable 'absolute' or 'objective' limitation period had expired and that accordingly, the claims were time-barred.¹⁴

2 The Swiss law provisions on limitation

The Swiss Code of Obligations (CO)¹⁵ provides two different limitation periods for tort claims. They differ with respect to both their starting point and their length. The so-called 'relative' or 'subjective' limitation period expires after three years and starts with the injured party's knowledge of the damage and the identity of the tortfeasor. In contrast, the 'absolute' or 'objective' period expires after ten or, in the case of personal injury, 20 years and starts on the date the duty was breached, even if the damage has not yet occurred.¹⁶

It was the absolute limitation period which was at issue in *Howald Moor* and *Jann-Zwicker*. However, the longer absolute limitation period of 20 years in the case of personal injury only entered into force in January 2020, following a reform which

¹³ ECtHR *Jann-Zwicker* no 4976/20, at [5] ff and [14].

¹⁴ See Swiss Federal Court decision (Bundesgerichtsentscheid, BGE) 16.11.2010, BGE 137 III 16 (*Howald Moor*), and 6.11.2019, BGE 146 III 25 (*Jann-Zwicker*); the decisions of the Swiss Federal Court are available at <<https://www.bger.ch/index/jurisdiction/jurisdiction-inherit-template/jurisdiction-recht.htm>> (12.6.2025). In *Jann-Zwicker*, the length of the domestic proceedings was the second reason why Switzerland was held to have violated art 6(1) ECHR, see ECtHR *Jann-Zwicker* no 4976/20, at [84] ff; *Widmer Lüchinger* (fn 3) Jusletter 8.4.2024, at [29].

¹⁵ An English-language translation of the Code (for information purposes only, without legal force) is available on the Swiss government's website: <https://www.fedlex.admin.ch/eli/cc/27/317_321_377/en> (12.6.2025).

¹⁶ See art 60(1) and (1bis) of the Swiss Code of Obligations.

aimed to strengthen the position of asbestos victims. At the time the two cases were decided by the Swiss courts, the absolute limitation period was still ten years. Accordingly, in the case of *Howald Moor*, the claims had become time-barred at the latest in 1988, 16 years before Mr Moor was diagnosed, and in the case of *Jann-Zwicker*, in 1982, 22 years before Mr Jann was diagnosed. However, the outcome would have been the same under the reformed law. The claims would also have been time-barred under a 20-year absolute period.

3 The ruling of the European Court of Human Rights

In both *Howald Moor* and in *Jann-Zwicker*, the European Court of Human Rights made it unequivocally clear that where it is scientifically proven that it is *impossible* for a person to know that they suffer from a certain illness, this must be taken into account for the purposes of limitation.¹⁷ Otherwise, given the long latency period between exposure and the onset of disease, any action for damages would be ‘doomed to failure from the start’, as it would become time-barred before it was objectively possible ‘for the victims of asbestos to have ... knowledge of their rights’¹⁸.

As explained by the European Court of Human Rights in *Jann-Zwicker*, the ‘taking into account’ required under art 6(1) ECHR can be achieved in different ways, eg by adapting the starting point (*dies a quo*) when the absolute limitation period starts to run, or by suspending the running of the limitation period.¹⁹ By failing to take ‘scientific impossibility’ into account, Switzerland was held to have violated the very essence of art 6(1) ECHR.²⁰

Following the decision in *Howald Moor*, there was some confusion as to what the ruling meant for absolute limitation periods in general. However, any residual uncertainty was removed in *Jann-Zwicker*. The European Court of Human Rights explained that what must be taken into account in the Member States is whether it is ‘scientifically proven that it is impossible for a person to know that he or she suffers from a certain illness.’²¹ In other words, the relevant question is not whether the injured person actually *did* know, but whether it was *scientifically possible* for them to know. The difference is subtle, but important. It may well be, for example, that a disease could be diagnosed on day X on the basis of advanced medical testing,

¹⁷ See above text around fn 6.

¹⁸ ECtHR *Howald Moor* nos 52067/10 and 41072/11, at [74].

¹⁹ See ECtHR *Jann-Zwicker* no 4976/20, at [80].

²⁰ See ECtHR *Jann-Zwicker* no 4976/20, at [82].

²¹ ECtHR *Jann-Zwicker* no 4976/20, at [79].

but that the person in question does not suffer from any symptoms until much later, so that there is a time-lag between the earliest possible moment of diagnosis and the onset of symptoms. The first is an objective starting point, which has nothing to do with the injured party's knowledge, and it is this objective starting point which, according to the European Court of Human Rights, must be taken into account.²² It follows – and this cannot be stressed enough – that the European Court of Human Rights has not *abolished* ‘absolute’ or ‘objective’ limitation periods.²³ A different question is how to *prove* that an illness could have been diagnosed at an earlier stage than when symptoms arose. This is clearly of practical relevance, but it does not change the fact that absolute limitation periods are still allowed under the Convention.

B Issues not addressed by the Court

1 Overview

There are several questions which the European Court of Human Rights was not called on to address in *Howald Moor* and *Jann-Zwicker* but which might become relevant in future cases concerning forever chemicals.

Firstly, the Court did not explain the notion of ‘illness’, knowledge of which must be ‘scientifically possible’. In the realm of asbestos claims, for example, would simple pleural plaques, which generally do not cause symptoms, but which signal the presence in the lungs and pleura of asbestos fibres which may independently cause fatal diseases,²⁴ constitute the ‘illness’ which must be taken into account under the Convention? Or is the ‘illness’ referred to by the Court the specific illness which the injured party is seeking compensation for, ie (in the cases of *Howald Moor* and *Jann-Zwicker*) mesothelioma?²⁵

Secondly, the principles developed in *Howald Moor* and *Jann-Zwicker* were tailored to asbestos-related personal injury claims. In *Jann-Zwicker*, the Court stated that it was the ‘exceptional circumstances that pertain to victims of asbestos exposure’ which allowed it to conclude that the applicants’ right of access to a court had been restricted to the point that the very essence of the right had been impaired.²⁶

²² ECtHR *Jann-Zwicker* no 4976/20, at [79].

²³ ECtHR *Jann-Zwicker* no 4976/20, at [80].

²⁴ Cf *Johnston v NEI International Combustion Limited* [2007] United Kingdom House of Lords (UKHL) 39 at [1]. On this decision, see below text around fn 54–60.

²⁵ See below under II B 2.

²⁶ ECtHR *Jann-Zwicker* no 4976/20, at [82].

The question arises as to which other categories of damage are comparably ‘exceptional’.²⁷

Thirdly, as the ‘scientific impossibility’ in both *Howald Moor* and *Jann-Zwicker* related to knowledge of the *illness*, it is unclear whether other facts which a person might not (objectively) be able to know of, such as the causal link between their illness and exposure to a toxic substance, must also be taken into account under the Convention.²⁸

Finally, neither *Howald Moor* nor *Jann-Zwicker* offers any guidelines regarding ‘subjective’ (or ‘relative’) limitation periods, as these were not at issue.²⁹

I will turn to these questions now.

2 The notion of ‘illness’ and the impact of increased risk

In *Howald Moor* and *Jann-Zwicker*, the European Court of Human Rights did not explain what it meant by the term ‘illness’, knowledge of which must be scientifically (ie objectively) possible. If, for example, Mr Jann had been diagnosed with pleural plaques *before* the absolute limitation period under Swiss law³⁰ had expired, but his mesothelioma did not develop until *afterwards*, would a domestic court be in breach of the Convention if it allowed the claimant to seek compensation for the increased risk related to pleural plaques, but not for the actual mesothelioma?

Although increased-risk claims have not yet come before Swiss courts, some jurisdictions have shown a willingness to allow such novel causes of action in order to prevent a later claim for physical injury from becoming time-barred. A similar result is achieved in jurisdictions which allow claims for the anxiety suffered because of the increased risk of a disease.³¹

²⁷ See below under II B 3.

²⁸ See below under II B 4.

²⁹ See below under II B 5.

³⁰ See above under II A 2.

³¹ This is, eg, the case in French law; see Cour de Cassation 18.10.2023, no 22–11492, concerning the anxiety suffered by a woman who, as a foetus, had been exposed to DES, and who therefore had an increased risk of developing cancer. For a discussion of this case, see *J Knetsch/Z Jacquemin*, France, in: E Karner/BC Steininger (eds), *European Tort Law (ETL) 2023 (2024)* 243, no 20ff; see also *C Widmer Lüchinger*, Comparative Remarks, in: E Karner/BC Steininger (eds), *European Tort Law (ETL) 2023 (2024)* 779, no 16ff. On French judgments granting damages for anxiety caused by work-related exposure to asbestos, see ECtHR *SAS IVECO FRANCE v France*, 1.2.2022, no 50018/17, at [10] ff; on this decision, see also below under II B 3.

The link between increased-risk claims and limitation was highlighted in a decision of the Swedish Supreme Court of 5 December 2023.³² The case was concerned with the liability of a water company for the increased risk caused by drinking water contaminated by PFAS. In its decision, the Court noted that the case ‘raise[d] the question of whether it is possible ... to establish liability for the increased risk that such an impairment will occur in the future. ... An argument in favour of granting injured parties this right is that ... there is a risk that claims for damages will be statute-barred before the physical deterioration has occurred. ...’.³³ The issue, therefore, was whether ‘increased risks in themselves should be regarded as personal injuries under current Swedish law’.³⁴

In its decision, the Swedish Supreme Court held that the bodily change in the claimants’ blood, which showed highly elevated levels of PFAS due to consumption of contaminated water, constituted bodily harm for the purpose of product liability, even though this change alone did not appear to cause any symptoms.³⁵ The Court did, however, emphasise that ‘because of the high levels of PFAS in their blood, [the appellants] ran a higher risk of suffering negative health effects and diseases which are associated with PFAS exposure compared to someone not exposed to the same extent’.³⁶ In other words, it was the combination of increased risk and physical change that led to the Court’s conclusion that the claimants had suffered physical injury. A different view was taken by the House of Lords in *Johnston and NEI International Combustion Limited*, which I will return to below.³⁷

In the past, the concern that a tort claim for physical injury might become time-barred also led several American courts to allow claims for increased risk.³⁸ In those cases, the claimants had suffered some kind of physical impairment which, in itself, caused no symptoms, but which indicated that they had been exposed to toxic sub-

32 Swedish Supreme Court 5.12.2023, T 486–23. An English translation of the judgment is available at <www.domstol.se/globalassets/filer/domstol/hogstodomstolen/avgoranden/engelska-oversattningar/t-486-23-eng.pdf> (12.6.2025). For a discussion of this case, see *S Friberg*, Sweden, in: E Karner/BC Steininger (eds), *European Tort Law (ETL) 2023 (2024)* 667, no 62ff.

33 Swedish Supreme Court 5.12.2023 (fn 32) at [18] f; emphasis my own.

34 Swedish Supreme Court 5.12.2023 (fn 32) at [20].

35 Swedish Supreme Court 5.12.2023 (fn 32) at [31].

36 Swedish Supreme Court 5.12.2023 (fn 32) at [30].

37 *Johnston v NEI International Combustion Limited* [2007] UKHL 39. On this decision, see below text around fn 54–60.

38 See eg. *Ayers v Township of Jackson*, 525 Atlantic Reporter, Second Series (A 2d) 287 (NJ 1987) (concerning toxic substances which had leached into an aquifer); *Petriello v Kalman*, 576 A 2d 474 (1990) (concerning medical malpractice); cf also *C Widmer*, *A Civil Lawyer’s Introduction to Anglo-American Law: Torts* (2008) 284f with further refs.

stances which increased their statistical risk of becoming ill.³⁹ By allowing such claims, the American courts were trying to work around the restrictions of the so-called *single-action rule*. Under this rule, a claimant must claim damages in the same action for all the damage which they have suffered, or will suffer, as a consequence of the breach of duty.⁴⁰

Neither the Swiss courts nor the European Court of Human Rights were concerned with increased-risk claims in *Howald Moor* and *Jann-Zwicker*. However, a statement made by the Court in *Howald Moor* suggests that the availability of an increased-risk claim before the absolute limitation period expires would not, by itself, be sufficient to satisfy the requirements of art 6(1) ECHR. In *Howald Moor*, the Swiss Federal Court had argued that there was no breach of art 6(1) ECHR as the applicants had received social security benefits because of Mr Moor's death.⁴¹ The European Court of Human Rights responded that while it was aware that the applicants had received such benefits, it wondered 'whether those benefits are such as to *compensate in full* for the damage suffered by the applicants as a result of the ... limitation of their rights.'⁴² In my opinion, it follows from this reference to full compensation that the 'illness' which must be taken into account for the purposes of limitation must be more than a mere physical change (such as in the case of pleural plaques) combined with an increased risk, as such claims would likely result in the claimant being undercompensated.⁴³ Rather, it will, as a rule, be the diagnosed disease for which compensation is being sought, ie, in the case of *Howald Moor* and *Jann-Zwicker*, the mesothelioma.

3 Applying *Howald Moor* and *Jann-Zwicker* beyond asbestos claims

As mentioned above,⁴⁴ in *Jann-Zwicker*, the European Court of Human Rights emphasised the 'exceptional circumstances that pertain to victims of asbestos exposure'. Although the Court did not specify in what way it considered the circumstances of such persons to be 'exceptional', its reference to the decision of SAS

³⁹ See eg, *Bower v Westinghouse Electric Corp*, 522 South Eastern Reporter, Second Series (SE 2d) 424 (W Va 1999).

⁴⁰ For an explanation of the rule, see *Johnston v NEI International Combustion Limited* (fn 37) at [13]. See also *Ayers v Township of Jackson*, 525 A 2d 287 (NJ 1987).

⁴¹ ECtHR *Howald Moor* nos 52067/10 and 41072/11, at [26]; a similar argument was made by the Swiss government in *Jann-Zwicker*, see ECtHR *Jann-Zwicker* no 4976/20, at [62].

⁴² ECtHR *Howald Moor* nos 52067/10 and 41072/11, at [76]; emphasis my own.

⁴³ Cf also below text around fn 61 (on subjective limitation periods).

⁴⁴ See above under II B 1.

*IVECO FRANCE*⁴⁵ which, in turn, refers to *Howald Moor*,⁴⁶ suggests that it was not the problem of proof of injury as such, but rather the length of the latency period between the exposure to asbestos and the onset of disease. The case concerned damages claims brought by employees against *SAS IVECO FRANCE* for anxiety suffered because their risk of disease had increased through work-related exposure to asbestos.⁴⁷ In its decision, the European Court of Human Rights noted that ‘diseases linked to exposure to asbestos are characterised by a particularly long latency period (*Howald Moor* ... at [74]). The Court has held that from the perspective of the right of access to a court, this specific feature must be taken into account for the purposes of limitation (*ibidem* at [74–79])’⁴⁸.

It follows that the ruling in *Howald Moor* and *Jann-Zwicker* must apply equally to diseases linked to toxic substances other than asbestos, insofar as these diseases are characterised by a ‘particularly long latency period’. This leads us to the question as to the cases’ impact where an injured person’s access to a court is thwarted not because the latency period is particularly long, but because of evidentiary difficulties relating to causation. I will turn to this question now.

4 Which facts must be ‘scientifically knowable’ under *Howald Moor* and *Jann-Zwicker*?

By way of illustration, let us assume that unlike in *Howald Moor* and *Jann-Zwicker*, a person who was exposed to forever chemicals became ill *before* the limitation period expired. However, because of the limits of science at that time, it was objectively impossible for them to prove a causal link between the exposure and their disease. Now let us assume that in the meantime, science has progressed, and it has become possible for the injured person to prove causation. This scientific breakthrough, however, did not take place until *after* the limitation period had expired. If a court, in proceedings initiated by such a person, were to hold that their claim was time-barred, would this constitute a breach of art 6(1) ECHR under *Howald Moor* and *Jann-Zwicker*?

⁴⁵ ECtHR *SAS IVECO FRANCE v France* no 50018/17.

⁴⁶ ECtHR *SAS IVECO FRANCE* no 50018/17, at [38].

⁴⁷ ECtHR *Jann-Zwicker* no 4976/20, at [82], referring to *SAS IVECO FRANCE* no 50018/17, at [33]–[44].

⁴⁸ ECtHR *SAS IVECO FRANCE* no 50018/17, at [38] (in the French original: ‘[L]a Cour rappelle que les maladies liées à l’exposition à l’amiante se caractérisent par une période de latence particulièrement longue (*Howald Moor et autres c Suisse*, nos 52067/10 et 41072/11, § 4, 11 mars 2014). La Cour a jugé qu’une telle spécificité doit être prise en compte en matière de prescription, sous l’angle du droit d’accès à un tribunal [*ibidem*, §§ 74–79]’); translation my own.

The answer depends on where one places the emphasis in *Howald Moor* and *Jann-Zwicker*. As pointed out above,⁴⁹ the cases suggest that it was the long latency period which was central to the Court's reasoning. Accordingly, one could argue that where a disease does not have a characteristically long latency period, *Howald Moor* and *Jann-Zwicker* do not apply. In both of these cases, the evidentiary difficulties encountered by the injured parties (ie the impossibility of knowing that they were ill) were linked to the length of the latency period between the exposure to asbestos and the onset of the disease. In other words, the difficulty was time-related. In contrast, the evidentiary difficulties in cases involving forever chemicals relate to causal uncertainties which are independent of the length of the (currently unknown) latency period. The problem of proof remains the same whether the latency period be long or short. It could be said that therein lies the central difference between asbestos-related mesothelioma claims and (future) PFAS claims.

On the other hand, both mesothelioma claims and potential PFAS claims have in common that the evidentiary difficulties which they raise are rooted in the current limits of human science. In the case of mesothelioma, it is not (yet) possible to predict whether a particular individual who was exposed to asbestos will go on to develop the disease. In the case of forever chemicals, it is currently impossible to establish whether a particular individual's disease was (or will be) caused by exposure to such substances. In both constellations, until there are significant scientific breakthroughs, applying absolute limitation periods will prevent injured persons from seeking damages before it is objectively possible for them to have knowledge of their rights.⁵⁰ If this is considered to be the cardinal point, then the question of the latency period loses importance. PFAS claims would be allowed to proceed regardless of absolute limitation periods, as soon as scientific proof of causation became possible.

Trying to establish whether a decision of the European Court of Human Rights is a precedent for other cases is an exercise to which a common law lawyer is better suited than one with a civil law background. Nonetheless, in my opinion, the Court's emphasis on the length of the latency period⁵¹ makes the second interpretation harder to sustain. However, from an injured party's perspective, it makes little difference whether they are unable to claim damages because of the impossibility of proving *harm* before the limitation period has expired or because of the impossibility of proving *causation* before the limitation period has expired. These could be

⁴⁹ See under II B 3.

⁵⁰ Cf above under II A 3.

⁵¹ See above under II B 3.

said to be two aspects of the same thing, namely the impossibility of bringing and proving a claim within the objective time limit.

A different approach would be to focus on the scientific ‘knowability’ of the constituent elements of a claim, rather than on the length of the latency period in which they might materialise. This is the approach taken by the (English) Limitation Act 1980 for actions in respect of personal injuries, albeit with respect to ‘subjective’ limitation periods, triggered by a person’s *knowledge* (rather than by objective ‘knowability’). Under section 11(4) of the Act, in the case of personal injury, the applicable limitation period is, in general, ‘three years from (a) the date on which the cause of action accrued; or (b) the date of knowledge (if later) of the person injured’. According to section 14, a person has ‘knowledge’ within the meaning of (*inter alia*) section 11(4)(a) on the date on which they have knowledge of the following facts: ‘(a) that the injury in question was significant; and (b) that the injury was attributable in whole or in part to the [allegedly negligent] act or omission ...; and (c) the identity of the defendant; and (d) if it is alleged that the act or omission was that of a person other than the defendant, the identity of that person and the additional facts supporting the bringing of an action against the defendant; and knowledge that any acts or omissions did or did not, as a matter of law, involve negligence’

It is not possible to predict whether the European Court of Justice will one day adopt a comparable view with regard to *absolute* limitation periods and shift its focus to the elements of the claim under art 6(1) ECHR. The consequences of such a shift would be far-reaching, as it would effectively remove any reliable time limitation as long as science progresses. However, at least outside of strict liability regimes, tort liability would still require wrongfulness, ie that the defendant breached a duty toward the injured person. Such a duty could not be created retroactively, based on future standards and future knowledge.

5 Questions relating to ‘subjective’ (or ‘relative’) limitation periods

As already pointed out,⁵² ‘subjective’ limitation periods, ie periods which are triggered by the injured party’s knowledge, were not at issue in *Howald Moor* or *Jann-Zwicker*. However, they also give rise to questions which could become relevant in future tort claims relating to forever chemicals.

One such question is whether subjective limitation periods are triggered by knowledge of the *injury* (or damage) or rather by knowledge of the *financial loss* resulting from that injury.

52 See above under II B 1.

If knowledge of the *injury* is decisive, then the distinction between mere physical ‘changes’ and actual physical ‘injury’ will be the central important factor not only for determining whether a claimant even has a claim, but also for deciding whether such a claim has become time-barred. This distinction was at issue in the aforementioned decision in which the Swedish Supreme Court held that physical changes in combination with the increased risk of disease constituted physical injury under Swedish law.⁵³

Conversely, in the English case of *Johnston and NEI International Combustion Limited*,⁵⁴ the House of Lords unanimously held that symptomless plaques, together with the increased risk of future injury, did *not* constitute physical injury. The appellants had been exposed to asbestos through the negligence of their employers and had developed pleural plaques as a result, ie a fibrous thickening of pleural membrane surrounding the lungs. As already mentioned,⁵⁵ such plaques do not, as a rule, cause any symptoms, nor do they cause other asbestos-related diseases such as asbestosis or mesothelioma.⁵⁶ However, the statistical risk of developing such diseases is significantly higher in persons with plaques than in those who have been exposed to asbestos but have not developed plaques.⁵⁷ The question was raised whether, ‘[i]f the pleural plaques are not in themselves damage, do they become damage when aggregated with the risk which they evidence or the anxiety which that risk causes? In principle, neither the risk of future injury nor anxiety at the prospect of future injury is actionable.’⁵⁸ The appellants had argued that they had a cause of action on the basis of the single-action rule.⁵⁹ However, in the opinion of the House of Lords, there was ‘nothing to suggest that a claimant can rely upon the single action rule to sue in circumstances in which he does not have a cause of action in the first place.’⁶⁰

In legal systems where knowledge of the *injury* (rather than of the financial loss flowing from the injury⁶¹) is decisive for the purpose of subjective limitation periods, it is important to keep in mind that allowing increased-risk claims might ad-

⁵³ See above text around fn 32–36.

⁵⁴ *Johnston v NEI International Combustion Limited* [2007] UKHL 39; see also Widmer Lüchinger (fn 31) no 22.

⁵⁵ See above text around fn 24.

⁵⁶ *Johnston v NEI International Combustion Limited* [2007] UKHL 39, at [1].

⁵⁷ *Johnston v NEI International Combustion Limited* [2007] UKHL 39, at [78].

⁵⁸ *Johnston v NEI International Combustion Limited* [2007] UKHL 39, at [12], per Lord Hoffmann, with reference to *Gregg v Scott* [2005] 2 AC 176 and *Hicks v Chief Constable of the South Yorkshire Police* [1992] 2 All ER 65.

⁵⁹ On this rule, see above text around fn 38–40.

⁶⁰ *Johnston v NEI International Combustion Limited* [2007] UKHL 39, at [14], per Lord Hoffmann.

⁶¹ On this different approach, see below text around fn 63–67.

versely impact those persons who choose not to bring a claim until the onset of disease. If, for example, elevated levels of PFAS in a person's blood become physical injury when aggregated with the increased risk of disease, the argument could be made that the subjective limitation period begins to run when that person knew of the elevated levels of PFAS in their blood and the related risk, as from that moment onwards, they could have claimed compensation. This might potentially bar those persons who go on to develop the actual disease after the limitation period has expired from claiming damages for the disease itself. Whether such a time bar would be compatible with art 6(1) ECHR was not at issue in *Howald Moor* or *Jann-Zwicker*. However, given the Court's emphasis on full compensation,⁶² the compatibility of such an approach with the Convention seems doubtful. For if a person develops a disease because of their exposure to forever chemicals, the compensation which they received previously for their increased risk of developing a disease will not be sufficient to compensate them in full for the disease itself.

The problem is less acute in legal systems such as Switzerland, where knowledge not of the injury, but of the *financial loss* is decisive. Under art 60(1) of the Swiss CO,⁶³ '[t]he right to claim damages ... prescribes three years from the date on which the person suffering damage *became aware of the loss* and of the identity of the person liable for it ...'⁶⁴. Here, the pertinent question will be the moment when the 'loss' can be said to have occurred. The answer to this question can differ between legal systems. In Switzerland, according to established case law, loss is only deemed to have 'occurred' for the purposes of art 60(1) CO when it has fully materialised.⁶⁵ In other words, where loss results from a situation which continues to develop and evolve, such as a physical injury which has not yet reached its final shape or form, the limitation period cannot begin to run before the development has come to an end.⁶⁶ Accordingly, the various heads of loss resulting from the same unlawful act do not constitute separate losses, but rather elements of a single loss, incurred when the last loss, in chronological order, has occurred.⁶⁷ In my opinion, it follows that, if increased-risk claims were introduced into Swiss law, the knowledge that such a claim is available in a particular case would not trigger the subjective limitation period with respect to future claims for loss suffered if and when the actual disease breaks out.

⁶² See above text around fn 41–43.

⁶³ See above under II A 2.

⁶⁴ Emphasis my own.

⁶⁵ Swiss Federal Court decision 15.2.1966, BGE 92 II 1 at [3].

⁶⁶ Swiss Federal Court decision 6.1.2011, BGer 4A_454/2010 at [3.1].

⁶⁷ Swiss Federal Court decision 15.2.1966, BGE 92 II 1 at [3]; 19.8.2020, BGer 4A_52/2020 at [3.3.4.2.1].

III Property damage claims

Different (and less complex) questions of limitation are raised by tort claims for property damage. They were touched upon in a decision of the German *Landgericht Baden-Baden* of 25 July 2024,⁶⁸ which was concerned with property damage caused by contaminated fertiliser.

The claim had been brought by a municipality against, *inter alia*, a company which processed organic waste, including waste pulp from the paper industry.⁶⁹ Between 2006 and 2008, the defendant company processed around 43,000 tonnes of paper pulp, which it mixed with organic compost in its processing plant and which was then spread over agricultural land.⁷⁰ This land was municipal land belonging to the claimant and lay adjacent to the municipal water works.⁷¹ The defendant company failed to analyse the paper waste before processing it.⁷² Had it conducted tests beforehand, it would have detected that the paper waste was heavily contaminated with PFAS.⁷³

The claimant had little difficulty in establishing the causal link between the defendant company's acts, which were in breach of several statutes on organic waste, and the claimant's loss, which was assessed at around € 150,000 and which consisted of the costs of testing the drinking water from the water works as well as the costs of shutting down one of the water wells while tests were ongoing. However, the defendant company's position was that the claims had become time-barred under both the three-year subjective limitation period⁷⁴ and the ten-year absolute limitation period⁷⁵ under German law. Neither defence was successful.⁷⁶ The defence relating to the *subjective period* failed for the very mundane reason that the defendant was unable to prove that the claimant had had prior knowledge of the contamination,⁷⁷ and the defence relating to the *objective period* for the equally mundane reason that the defendant had failed to establish which of its acts, leading to which losses, had occurred before the relevant cut-off date.⁷⁸

68 Landgericht Baden-Baden 25.7.2024, 3 O 319/17, BeckRS 2024, 42599.

69 Landgericht Baden-Baden 25.7.2024 (fn 68) at [1] ff.

70 Landgericht Baden-Baden 25.7.2024 (fn 68) at [5].

71 Landgericht Baden-Baden 25.7.2024 (fn 68) at [1] ff.

72 Landgericht Baden-Baden 25.7.2024 (fn 68) at [5].

73 Landgericht Baden-Baden 25.7.2024 (fn 68) at [199].

74 See § 195 in conjunction with § 199 German Civil Code.

75 § 199(3) German Civil Code.

76 Landgericht Baden-Baden 25.7.2024 (fn 68) at [208] ff.

77 Landgericht Baden-Baden 25.7.2024 (fn 68) at [209].

78 Landgericht Baden-Baden 25.7.2024 (fn 68) at [210].

IV Conclusions

The PFAS cases which most national courts will likely be confronted with in the immediate future will not involve personal injury claims, but claims for property damage caused by contamination of soil and water. Assessing how a court might deal with the limitation of property claims requires less gazing into a crystal ball than is the case with personal injury claims.⁷⁹

Nonetheless, on the basis of the asbestos-related decisions of the European Court of Human Rights in *Howald Moor* and *Jann-Zwicker*,⁸⁰ certain tentative conclusions can be drawn with regard to the limitation of personal injury claims.

If forever chemicals turn out to cause diseases with a characteristically long latency period, claims for personal injury will have to be treated in the same way as claims for asbestos-related mesothelioma under art 6(1) ECHR. Accordingly, should a disease caused by exposure to PFAS be ‘scientifically unknowable’ until after the absolute limitation period has expired, this would need to be taken into account by the Member States of the European Convention. Under the ruling in *Howald Moor* and *Jann-Zwicker*, they would not be allowed to hold that PFAS claims are time-barred simply because the latency period is typically longer than their domestic absolute limitation period.⁸¹

In contrast, insofar as the problem faced by a person is the impossibility of establishing a causal link between their illness and exposure to forever chemicals, the implications of *Howald Moor* and *Jann-Zwicker* are unclear. The evidentiary difficulties in those cases were connected to the length of the latency period between the cause of the disease and its onset, whereas the evidentiary difficulties in potential cases involving forever chemicals exist regardless of the latency period. It is not possible to predict whether in future cases on art 6(1) ECHR, the European Court of Justice will focus less on the length of the latency period and more on whether the constituent elements of the claim were ‘scientifically knowable’ before the limitation period expired.⁸² The consequences of such a shift would be far-reaching, although the requirement of ‘wrongfulness’ could act as a safeguard.⁸³

Finally, if a national legal system allows persons to bring a claim for increased risk or anxiety related to increased risk due to exposure to forever chemicals, this does not mean that they are free to hold that those tort claims which might arise later, with the onset of the disease, are time-barred. The availability of such novel

⁷⁹ On the ‘crystal ball aspect’, see penultimate paragraph above under I.

⁸⁰ See above under II A 1 and 3.

⁸¹ Cf above under II B 3.

⁸² See above under II B 4.

⁸³ See last two paragraphs above under II B 4.

claims should not be sufficient to trigger limitation periods for more orthodox tort claims which arise when the disease actually breaks out.⁸⁴ Opening up alternative routes of obtaining damages should not result in new problems of limitation for the injured party.

⁸⁴ See above under II B 2.