Company name:	Bayer
Region:	Europe
Rank:	17 / 40

Category points:	
1. Transparency	7 points
2. Phase-out of persistent chemicals	1 points
3. Product portfolio	6 points
4. Safer solutions	0 points
Total score:	**14 points**

chemsec

CHEMSCORE

2025

Introduction:

ChemScore is an initiative from the NGO ChemSec that aims to capture and rank the world's largest chemical companies' efforts to reduce their production of toxic chemicals as well as to boost investments in safer, greener alternatives. The world's largest global stock-listed chemical companies are ranked in four separate categories. The 2025 ranking marks the sixth iteration of ChemScore and has been reshaped with a new methodology to better show the difference between the chemical companies in scope.

Category 1: Transparency

A strong chemicals management system is fundamental for any chemical company, especially those with a large share of hazardous substances in their production. A transparent approach to hazardous product ingredients and its own emissions is a good indication of the direction in which a company is moving.

Criteria	Points before multipliers	Multipliers		Final points	Detailed definition
		A	B		
1. The company publishes the percentage of revenue created with products that are, or contain, intentionally ***added*** hazardous substances or unintentionally ***present*** hazardous substances. A) The reported concentration limit is 1000 ppm (0,1%) or more - 0,5 points B) The reported concentration limit is below 1000 ppm (0,1%) - 1 point	**0,0**	1,0	0,5	**0**	As "intentionally added" substances count also substances (or mixtures) where at least one component or *known/presumed* contaminant is considered hazardous. At least 90% of the total portfolio must be included in the assessment (only new acquisitions (<2 years) are eligible to be exempted). (Maximum 6 points, including multipliers)
2. The company publishes volumes (internal: capacity = volume) of hazardous substances that leave the company's facilities as products or services on a global level	**1,0**	3,0	1,0	**3**	The disclosure must be reported in weight, volume or percentage of the total production. A publicly stated production capacity would qualify. At least 90% of total portfolio must be included in the assessment (only new acquisitions (<2 years) are eligible to be exempted). Applies to all products leaving the factory gates, not for internal (*site-specific)* use. (Maximum 6 points, including multipliers)
3. The company publishes volumes of hazardous substances that leave the company's facilities as emissions on a global level	**1,0**	1,0	1,0	**1**	It must be a public statement covering all emissions (to air, water, and soil) of hazardous substances as requested in ESRS E2 pollution. It must also be clear that at least 90% of the company's emissions worldwide, including all subsidiaries, are included in the disclosure to be awarded points (only new acquisitions (<2 years) are eligible to be exempted). (Maximum 6 points, including multipliers)
4. The company reports on their *global* hazardous substances portfolio (*beyond* EU/US) on a substance-by-substance basis.	**0,0**	1		**0**	The whole portfolio must be revealed to score at all. However a public statement saying the company has the same production or sales inside and outside of the EU/US would qualify, such as "No additional hazardous substances are produced or sold outside the EU/US that we do not sell in these two regions". Please note that this criterion does not look at production volumes, but at the unique number of different hazardous substances in the company portfolio. (Maximum 4 points, including multiplier A only)
5. Response to ChemSec	**3,0**	-		**3**	The following activities are considered valid responses: providing input before the research period begins (April to June), offering feedback on draft scores (July to early September), and participating in conference calls discussing draft scores (August to September). Completion of any one of these activities is sufficient to score. (Maximum 3 points, no multipliers applied for this criterion)
Total category 1 score (max 25):				**7,00**	**Please note that category points will be rounded.**

Category 1 multipliers	Detailed definition
A. Multiplier for points awarded in criteria 1,2,3 and 4 (Individual multipliers are applied for each criterion above.) The company defines hazardous substances as: A.1. = Substances on the REACH Authorisation List / GRI hazard classes for emissions => (1x multiplier) A.2. = REACH Candidate list substances / PRTR register for emissions => (2x multiplier) A.3. = REACH Candidate list substances and classified SoCs (= CSRD), same for emissions => (3x multiplier) A.4. = Meeting the SVHC criteria (= SIN List), Meeting the SoC, same for emissions => (4x multiplier)	"Meeting the SVHC criteria" includes any substance that fulfils the REACH criteria even if not yet included on the official REACH Candidate List. This means that any substance with a harmonised, or self-classification as a CMR category 1, or that is known or presumed to have PBT, vPvB, PMT, vPvM, EDC, or Equivalent level of concern properties should be included. As a minimum, all substances on the SIN List must be included. "Substance of Concern" (SoC) includes any substance that fulfils the CSRD criteria for SoC. This means that any substance with a harmonised, or self-classification as such must be included.
B. Multiplier for points awarded in criteria 1,2 and 3. (Individual multipliers are applied for each criterion above.) Revenue and/or Volumes are reported as: B.1 Lump sum => (0,5x multiplier) B.2 By hazard class => (1x multiplier) B.3 Substance by substance => (1,5x multiplier)	When the sum/volume is aggregated by hazard class, it must be possible to follow all hazard classes a specific substance is included in. For example, it could be both Carcinogenic and PBT; it must then be placed in its own hazard class separate from "only" carcinogenic or "only" PBT.

Category 2: Phase-out of persistent chemicals

Persistent chemicals pose a tangible long-term risk to investors, as accidents, spills and products made with persistent chemicals today could lead to penalties and liabilities for years to come. The companies abilities to acknowledge this risk and perform mapping and concrete actions against persistent chemicals like PFAS is assessed in this category.

Criteria	Points before multipliers	Multipliers		Final points	Detailed definition
		A	B		
1. Has the company mapped the presence of (un)intentionally present persistent chemicals in its processes and upstream value chain?	0,0	0,5	0,5	0	The mapping must be updated annually and clearly stated the mapping also includes the supply chain. "Persistent chemicals" include any persistent chemicals that *fulfil* any of the following definitions: PBT, vPvB, PMT, vPvM, POP or "Extremely persistent" substances as listed on the SIN List. As "intentionally" present/produced/used/sold substances also count substances (or mixtures) where at least one component or known/presumed contaminant is considered persistent. "Buy" includes import also when it is an internal company transfer. For the company to score in (criteria 2.3) " Does not sell products with persistent chemicals", the levels of intentionally added or unintentionally present contaminants should be less than 1000 ppm. (Maximum 4 points, including multipliers, can be awarded for each criterion)
2.1. Does the company produce persistent chemicals? A) Does not produce - 2 points B) Produce them, but has a timed phase out plan - 1 point	0,0	0,5	0,5	0	
2.2. Does the company buy/import persistent chemicals? A) Does not buy/import - 2 points B) Buy them, but has a timed phase out plan - 1 point	2,0	0,5	1,0	1	
2.3 Does the company sell persistent chemicals? A) Does not sell - 2 points B) Sell them, but has a timed phase out plan - 1 point	0,0	0,5	1,0	0	
3. How large is the share of revenue coming from products containing persistent chemicals? A) Lower than 5% - 1 point B) Lower than 1% - 2 points	0,0	0,5	0,5	0	
4. Does the company publish a clear roadmap/strategy (with/without KPIs) to phase out intentionally present persistent chemicals or provide a statement that they are free (within the above limits) from them? A) Roadmap/strategy without KPIs - 1 point B) Roadmap/strategy with KPIs - 2 points	0,0	0,5	0,5	0	KPIs should be SMART: 1. Specific (= clearly defined) 2. Measurable (= expressed with a number) 3. Achievable (= ambitious but not unrealistic) 4. Relevant (= circular economy-related) 5. Time-bound (= there is a deadline to achieve it) Please note: At a minimum, targets must be considered both ambitious AND relevant; otherwise they will not be rewarded at all. (Maximum 4 points, including multipliers)
5. Does the company acknowledge that persistent chemicals may be problematic from a human health or environmental perspective?	0,0	-		0	Any mention of persistence as a problematic chemical property is awarded. A statement could also include known problematic persistent substance groups, such as PFAS. (Maximum 1 point, no multipliers applied for this criterion)
Total category 2 score (max 25):				1,00	**Please note that category points will be rounded.**

Category 2 multipliers	Detailed definition
A. Multiplier for points awarded in criteria 1,2,3 and 4 (Individual multipliers are applied for each criterion above.) The company defines the word "persistent" as: A.1 Only substances on the REACH candidate list as PBT, vPvB, PMT or vPvM are included => (0,5x multiplier) A.2 PFAS => (1x multiplier) A.3 All persistent chemicals => (2x multiplier)	With PFAS, we include any substance included in the OECD definition. Persistent chemicals include any persistent chemicals that fulfil any of the following definitions: PBT, vPvB, PMT, vPvM, POP or "Extremely persistent" substances as listed on the SIN List.
B. Multiplier for points awarded in criteria 1,2, 3 and 4. (Individual multipliers are applied for each criterion above.) The company include the following product groups: B.1 Only consumer products/uses => (0,5x multiplier) B.2 All products/uses => (1x multiplier)	If a company has only industrial customers and no products are sold for consumer use, it is considered as to be "phased out" from consumer use. Consumer product would be any chemical, mixture or article sold directly to, or is in some way *potentially available* to individuals or consumers.

Category 3: Product portfolio

Reducing the overall toxic footprint of a company is a key action, not only to minimise regulatory risk, but also to reduce the reputational risk and unexpected liabilities. This category measures both the absolute hazard of each company's portfolio and the relative financial risk in relation to its size.

Criteria	Number of chemicals	Hazard mark multiplier	Total hazard mark	Detailed definition
1. Number of SIN List chemicals, POPs, PICs and HHP substances produced	30	1 mark per chemical	30	ChemSec keeps a record of all producers of SIN List chemicals in a publicly available database, tailored for investors, called the SIN Producers List. It lists the total number of SIN List, POP, PIC and HHP chemicals produced by each chemical company, including subsidiaries.
2. Number of EU REACH Candidate List chemicals produced	4	1 additional mark per chemical	4	ChemSec keeps a record of all producers of SIN List chemicals in a publicly available database, tailored for investors, called the SIN Producers List. It lists the total number of SIN List, POP, PIC and HHP chemicals produced by each chemical company, including subsidiaries. Substances that are on the REACH Candidate List are one step closer to face regulatory scrutiny, and will hence add 1 additional hazard mark for each such substance.
3. Number of chemicals produced on the EU's REACH Authorisation List and/or POP substances	0	2 additional marks per chemical	0	ChemSec keeps a record of all producers of SIN List chemicals in a publicly available database, tailored for investors, called the SIN Producers List. It lists the total number of SIN List, POP, PIC and HHP chemicals produced by each chemical company, including subsidiaries. Substances that are listed as POPs, or listed on the REACH Authorisation List are already facing strong regulatory scrutiny and will hence add 2 additional hazard marks to the total hazard mark for each such substance.
4. Number of persistent chemicals produced on the SIN List and POP substances	10	2 additional marks per chemical	20	Information on persistent chemicals that meet the REACH criteria are also found and specifically highlighted on the SIN Producers List. Persistent substances Arte particularly concening for the ability to cause long-term liabilities and will therefore add 2 additional hazard marks to the total hazard mark for each such substance.
Total hazard mark (The sum of the hazard marks from criteria 1, 2, 3, and 4)			54	The total hazard mark is a metric to indicate the total combined hazard profile for each company, the higher the number, the more problematic the portfolio.
Company's total revenue in billion USD			48,3	Revenue is an indication of the size of a chemical producer.
Weighted hazard penalty [Total hazard marks]/[Revenue]=[Weighted hazard penalty]			1,12	A big company can "absorb" a higher total hazard mark than a smaller company with the same financial risk, even if the toxicity of the product portfolio is higher in absolute terms. To make the hazard mark indicator comparable between companies of very different sizes, we divide the hazard mark with revenue (in BnUS$) to provide a weighted hazard penalty. The lower the weighted hazard penalty, the better.

Category score table

Weighted hazard penalty:	= 0	≦ 0,05	≦ 0,1	≦ 0,15	≦ 0,2	≦ 0,25	≦ 0,3	≦ 0,4	≦ 0,5	≦ 0,6	≦ 0,7	≦ 0,8	≦ 0,9	≦ 1,1	≦ 1,3	≦ 1,5	≦ 1,8	≦ 2,1	≦ 2,4	≦ 2,8	≦ 3,2	≦ 3,7	≦ 4,2	≦ 5,2	≦ 6,2	> 6,2
Category score:	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Category score	11	The weighted hazard penalty is used to retrieve the company's category score from the category score table above. The higher the category score the better. (Maximum score is 25 points)
Percentage of EU/US revenue	56%	Unfortunately, only the chemical production in the EU and US are publicly available and possible to attribute to individual companies. Since this is a benchmark with globally present companies, it is important to balance the uncertainty about chemical production taking place outside of the EU/US markets. The category score is therefore multiplied by the share of production (0-100 per cent) taking place in the EU/US, as indicated in the company's annual report. Higher EU/US production means less uncertainty about the total global production of hazardous chemicals and hence gives a more favourable score. However, please note that this number could be set to 100 per cent by providing an accepted response to criteria 1.4 above.
Total category 3 score (max 25 points) [Category score]*[Percentage EU/US revenue]	**6,2**	**Please note that category points will be rounded.**

Category 4: Safer solutions

To be a prosperous company in the long run, it must not only reduce its toxic footprint but also actively increase the share of safer solutions. To be able to do this, we assess how the companies define "safer" and take a closer look at their current status as well as their ambitions to increase the share of safer solutions over time.

Criteria	Points before multipliers	Multipliers		Final points	Detailed definition
		A	B		
1. Does the company have a definition or a concept that they consider to be a safer solution?	0,0	0,0	0,5	0	Most companies have their own definition of what they consider as "safe" or "safer", even if it is often based on, for example, WBCSD PSA methodology. Points are awarded depending on how well we judge such a definition as actually protecting human health and the environment. Only the intrinsic properties of a chemical/product are taken into consideration, and risk management measures are not taken into account. Any definition or concept of what the company considers to be a "safer" solution or product must be publicly available, clear, and unambiguous. (Maximum 4 points, including multipliers)
2. How big a share of the global sales is generated by the company's safer solutions? A) More than 20% - 1 point B) More than 40% - 1,5 points C) More than 60% - 2 points	0,0	0,0	0,5	0	Self-reported global volumes or revenues of the safer solutions they market in relation to the total revenue. (Maximum 8 points, including multipliers)
3. Does the company have a commitment not to develop or market new products containing hazardous substances?	0,0	0,0	0,5	0	Does the company commit to not introducing new products containing hazardous substances on the market? Any indication of such cut-off criteria is enough to score. Many known hazardous substances are not banned. Therefore, general statements that the company "complies with regulation," "avoids," "minimises," etc. are not sufficiently strong to be rewarded. Nor is the banning of only one or a few such properties enough. As "hazardous" we include chemicals meeting the SVHC criteria (CMR, EDC, PBT/vPvB, PMT/vPvM or other equivalent levels of concern) as well as highly persistent substances such as PFAS. (Maximum 6 points, including multipliers)
4. Does the company commit to increasing the share of sales of safer solutions? A) Increase more than 10% in 5 years - 1 point B) Increase more than 30% in 5 years - 2 points	0,0	-		0	The increase is to be calculated as an increase in percentage points. To take into consideration that different companies might have different reporting periods, (maybe 3, 5, 10 years horizon), corresponding annual increase would be: A) 2% /year - 1 point B) 6% /year - 2 points If a company in practice, or through its statements, would reach the roof (100% safer products), it will automatically receive 2 points (Maximum 2 points, no multipliers applied for this criterion)
5. Number of verified safer solutions (Marketplace, C2C) A) at least one alternative/$3 Bn revenue - 1 point B) more than 2 alternatives/$3 Bn revenue - 2 points C) more than 3 alternatives/$3 Bn revenue - 3 points	0,0	-		0	The verified "safer solutions" are intended to be safer than any hazardous chemical or product currently on the market. Hence, it does not refer only to safer solutions than what the company itself has on the market today. Hence, it is not connected to criteria 4.2 (share of sales from safer solutions which is a self assessment). Only *third-party verified* safer alternatives with an equal or stricter definition of "safer solutions" than the ChemSec marketplace is eligible, such as Cradle-2-cradle platinum or gold. (Maximum 3 points, no multipliers applied for this criterion)
6. Does the company disclose the share of R&D expenditures that are targeted towards the development of safer solutions	0,0	-		0	Investing in R&D for safer alternatives is key to gaining future market shares, and to be able to judge from the outside, it must be transparent about it. Disclosure could be in percentage of total R&D costs, percentage of CAPEX, or absolute numbers. However, It must be clear that the referenced number is earmarked for the development of safer alternatives. (Maximum 2 points, no multipliers applied for this criterion)
Total category 4 score (max 25):				0,00	**Please note that category points will be rounded.**

Category 4 multipliers	Detailed definition
A. Multiplier for criteria 1, 2 and 3 if a safer solution always excludes hazardous substances defined as: A.0 If the definition does not even include Candidate list substances, no point can be awarded => (0x multiplier) A.1. Only REACH Candidate list substances => (0,5x multiplier) A.2. Meeting the SVHC criteria (= SIN List) and meeting REACH persistence criteria => (1,5x multiplier) A.3. Meeting the SoC criteria, and meeting the REACH persistence criteria => (2x multiplier)	The company's definition of a safer solution must clearly state exactly what is included/excluded. A lack of definition or clarity will result in a multiplier of x0.
B. Multiplier if safer products only include: B.1 Consumer products => (0,5x multiplier) B.2. All products => (1x multiplier) B.3. Also internal processes and process chemicals => (2x multiplier)	It must be clearly stated exactly what product categories are included in the company's definition of a safer solution. The absence of a definition or lack of clarity will result in a multiplier of x0,5.