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PUBLIC VERSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

Covestro AG
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Subject: **Case M.10006 – COVESTRO / KONINKLIJKE DSM (RESINS & FUNCTIONAL MATERIALS BUSINESS AND OTHER ASSETS) Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004[1] [2] and Article 57 of the Agreement on the European Economic Area[3]**

Dear Sir or Madam,

(1) On 23 December 2020**,** the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which

1 OJ L 24, 29.1.2004, p. 1 (the 'Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this decision.

2 For the purposes of this Decision, although the United Kingdom withdrew from the European Union as of 1 February 2020, according to Article 92 of the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (OJ L 29, 31.1.2020, p. 7), the Commission continues to be competent to apply Union law as regards the United Kingdom for administrative procedures which were initiated before the end of the transition period.

3 OJ L 1, 3.1.1994, p. 3 (the 'EEA Agreement').

Covestro AG ("Covestro", Germany) acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the Resins & Functional Materials businesses (" the Target") of Koninklijke DSM N.V ("DSM", Netherlands) ("the proposed Transaction")[4]. The concentration is to be accomplished by way of purchase of shares and assets[5]. Covestro ("the Notifying Party") and the Target are designated hereinafter as the "Parties" or "Parties to the proposed transaction".

1. THE PARTIES

(2) Covestro focuses on the supply of high-performance polymers and components for such polymers. Covestro operates three segments: Polyurethanes ("[…]"*), Polycarbonates, and Coatings, Adhesives, Specialties.

(3) The Target is primarily active in the supply of resins for the use in coatings, the supply of glass fibre coatings. The Target is also active in anti-reflective coatings used in particular for solar glass panels, 3D-printing materials and adhesives, although these products only constitute a minor part of the Target's activities compared to the supply of resins for the use in coatings and the supply of glass fibre coatings. Covestro is not present in these last three areas.

2. THE OPERATION AND THE CONCERTATION

(4) Pursuant to a sale and purchase agreement, Covestro will acquire through its wholly-owned subsidiary Covestro Deutschland AG, and MS Holding B.V., a wholly-owned subsidiary of Covestro Deutschland AG, all the shares in several companies (and, indirectly, their respective subsidiaries) which carry out the Target's activities, including DSM Niaga®[6], DSM Additive Manufacturing[7] and the coatings activities of DSM Advanced Solar [8].

(5) After the completion of the concentration, the Target will thus be (indirectly) wholly-owned and solely controlled by Covestro. As Covestro will (indirectly) acquire and, post-transaction, hold 100% of the shares of the Target[9], the latter will be solely controlled by Covestro.

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4 Publication in the Official Journal of the European Union No C 5, 07.01.2021, p. 20.

5 See Form CO paragraphs 36 – 38

* Should read: "PUR".

6 DSM Niaga is active in the manufacture of carpets, matresses and panels, see : https://www.dsm-niaga.com

7 DSM Additive Manufacturing is a line of business of the Target, active in 3D printing, see https://www.dsm.com/additive-manufacturing/en_US/home.html

8 Covestro AG will in particular acquire all the shares in DSM Resins Holding (Nederland) B.V., DSM Neoresins Holdings B.V., DSM Coating Resins INC., DSM Desotech Inc., Healthy Nest Inc., DSM Coating Resins Spain, S.L.U., DSM Kunstharze GMBH, DSM Coating Resins International Holding B.V. and DSM Material Science & Technology (Shangai) CO. LTD.

9 Including a limited number of assets relating to the Target's sales agency activities, see Form CO, paragraph 38.

3. UNION DIMENSION

(6) Covestro and the Target have a combined aggregate worldwide turnover of more than EUR 5 000 million (Combined: EUR […], Covestro: EUR 12 412 million, Target: EUR […]). Each of the Parties has an EU-wide turnover in excess of EUR 250 million (Covestro: EUR […], Target: EUR […]).

(7) Covestro and the Target do not achieve more than two-thirds of their aggregate EU-wide turnover within one and the same Member State.

(8) The notified operation therefore has a Union dimension.

4. COMPETITIVE ASSESSMENT

4.1. Analytical framework

(9) Under Articles 2(2) and 2(3) of the Merger Regulation, the Commission must assess whether a proposed concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position.

(10) A concentration can entail horizontal effects. In this respect, in addition to the creation or strengthening of a dominant position, the Commission Guidelines on the assessment of horizontal mergers under the Merger Regulation[10] ("the Horizontal Merger Guidelines") distinguish between two main ways in which mergers between actual or potential competitors on the same relevant market may significantly impede effective competition,[11] namely (a) by eliminating important competitive constraints on one or more firms, which consequently would have increased market power, without resorting to coordinated behaviour (non- coordinated effects); and (b) by changing the nature of competition in such a way that firms that previously were not coordinating their behaviour are now significantly more likely to coordinate and raise prices or otherwise harm effective competition. A merger may also make coordination easier, more stable or more effective for firms, which were coordinating prior to the merger (coordinated effects). Concentrations which, by reason of the limited market share of the undertakings concerned are not liable to impede effective competition may be presumed to be compatible with the internal market. An indication to this effect exists, in particular, where the market share of the undertakings concerned does not exceed 25 % either in the internal market or in a substantial part of it.[12]

(11) Furthermore, a concentration can entail vertical effects. The Commission Guidelines on the assessment of non-horizontal mergers under the Merger Regulation[13] (the "Non- Horizontal Merger Guidelines") also distinguish between two main ways in which non-horizontal mergers may significantly impede effective competition: (a)

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10 Commission Guidelines on the assessment of horizontal mergers under the Merger Regulation, OJ C 31, 5 February 2004, paragraph 5–18.

11 ibid, paragraph 22.

12 ibid, paragraph 18.

13 Commission Guidelines on the assessment of non-horizontal mergers under the Merger Regulation, OJ C 265, 18 October 2008, paragraphs 6–25.

when they give rise to input and/or customer foreclosure (non-coordinated effects); and (b) when the merger changes the nature of competition in such a way that firms that previously were not coordinating their behaviour, are now more likely to coordinate to raise prices or otherwise harm effective competition (coordinated effects).[14] The Non-Horizontal Merger Guidelines distinguish two types of foreclosure: (a) where the merger is likely to raise the costs of downstream rivals by restricting their access to an important input (input foreclosure) and (b) where the merger is likely to foreclose upstream rivals by restricting their access to a sufficient customer base (customer foreclosure)[15]. According to the Non-Horizontal Merger Guidelines, the Commission is unlikely to find concern in non-horizontal mergers, where the market share post-merger of the new entity in each of the markets concerned is below 30%.[16]

4.2. Relevant markets

4.2.1. Coating resins

(12) A coating can be any preparation which is used to provide a film with decorative, protective or other functional effect on a surface. Resins are essential elements of the coating formulation. They bind the various components of a coating together into a film and bond the film to the substrate e.g., a car door, a piece of wooden furniture or the exterior of a fridge. Also, they determine the performance characteristics of the coatings, such as gloss, durability, smoothness, flexibility, weatherability and resistance. Both Covestro and the Target produce coating resins.

4.2.1.1. Product market definition

(A) Past decisions of the Commission

(13) The Commission has previously considered a segmentation of the relevant product market for the supply of coating resins by (i) delivery technology, (ii) chemistry and (iii) industrial application.[17]

(14) A segmentation by delivery technology distinguishes between the following categories of coating resins: (i) liquid resins that can be further segmented into solventborne ("SB") and waterborne ("WB") resins, (ii) radiation curable resins ("UV") and (iii) powder resins. The Commission considered that liquid (WB and SB), radiation curable and powder resins differ from one another in terms of production process, the way they are applied to the substrate, the curing time, the residue they leave behind and their environmental friendliness and are not substitutable with one another and constitute separate markets. [18]

(15) A segmentation by chemistry distinguishes coating resins by reference to the base chemical compound of the resin. Common chemistries of coating resins include

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14 ibid, paragraphs 17-19.

15 ibid, paragraph 30.

16 ibid, paragraph 25.

17 M.8019 – Advent International / Nuplex Industries, paragraphs 12 et seq.; M.9353 – Advent International Corporation / Evonik Methacrylates Business Division, paragraphs 42 - 51.

18 M.8019 – Advent International / Nuplex Industries, paragraph 15; M.9353 – Advent International Corporation / Evonik Methacrylates Business Division, paragraphs 51.

acrylics, alkyds, epoxies, polyurethanes and polyesters – or hybrids thereof, comprising two or more such chemistries. Different base chemicals impart different performance characteristics to the coating, and the chemistry that a resin manufacturer and its customers choose is generally driven by the requirements of the coating's intended industrial application. The Commission has therefore considered that resins based on different chemistries are not substitutable with one another and constitute separate markets. [19] In addition, the Commission has examined separate product markets for hybrid resins, which are obtained where two resins are reacted together through a chemical process (referred to as "hot blend" process), meaning these are not simple blends of different products (simple blending is also referred to as "cold blend" process), but has left the market open. [20]

(16) By reference to the industrial application[21], the Commission has previously considered segmenting coating resins into: (i) Automotive OEM (including car and light commercial vehicle and SUV, automotive OEM plastic and metal parts); (ii) Automotive refinish; (iii) Industrial Wood; (iv) Coil and pre-coated metals ("PCM"), including coil, pre-coated sheet (including powder for appliances) - strips and aluminium extrusions; (v) Other Industrial (including agriculture, construction, aerospace, heavy duty trucks, buses, other land transportation, electrical, plastic, general metal and other non-wood and non-coil products); (vi) Marine; (vii) Special Purpose (including protective, industrial maintenance, traffic paint, and other performance air-drying applications); (viii) Packaging; (ix) Architectural (including decorative and protective paint coatings); and (x) Adjacent coating and non-coating applications (including resins not assigned to specific coating applications (such as textile or inks), and/or resins used for non-coating applications such as rubber and tires or adhesives). While considering it appropriate to segment the market for coating applications by industrial applications as well, the Commission left the market open.

(B) The view of the Notifying Party

(17) In line with the Commission's decisional practice, the Notifying Party suggests to analyse coating resins by distinguishing between different delivery technologies and chemistries, and, in addition, by potentially distinguishing between industrial applications.[22]

(C) Results of the market investigation

(18) The market investigation strongly indicated the respondents' support for the Commission's precedents regarding the product market definition for coating resins.[23]

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19 M.8019 – Advent International / Nuplex Industries, paragraph 30; M.9353 – Advent International Corporation / Evonik Methacrylates Business Division, paragraph 51.

20 M.4071 – Apollo / Akzo Nobel LAR, paragraph 34.

21 M.8019 – Advent International / Nuplex Industries, paragraphs 30-31; M.9353 – Advent International Corporation / Evonik Methacrylates Business Division, paragraph 51.

22 See Paragraph 101 Form CO.

23 See replies to questions 3 – 5, Q3 - Questionnaire to Downstream Customers and questions 7 – 9 Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

(D) Commission's conclusions

(19) In the present case and taking into account the results of the market investigation, the Commission will analyse coating resins on the basis of a segmentation by chemistry as well as a segmentation by delivery technology and then by potentially distinguishing between industrial applications, since a distinction by industrial application does in any event not impact the outcome of the competitive assessment of the transaction.

4.2.1.2. Geographic market definition

(A) Past decisions of the Commission

(20) In past decisions, the Commission considered that the geographic market for the supply of coating resins is likely EEA-wide in scope[24], but has also examined a worldwide market[25].

(B) The view of the Notifying Party

(21) The Notifying Party submits that the geographic scope of each of the coating resins' markets/segments is at least EEA-wide, but also submits data for worldwide markets.[26]

(C) Results of the market investigation

(22) The market investigation results indicated that the majority of the respondents support an EEA-wide geographic market definition for the supply of coating resins. There were however some respondents who indicated that the geographic market definition is worldwide.[27]

(D) Commission's conclusions

(23) In the present case, taking into account the results of the market investigation, the Commission does not find any reason to depart from the approach adopted in past cases[28], since the exact geographic market definition for coating resins (EEA-wide or worldwide) does not impact on the outcome of the competitive assessment of the transaction.

4.2.1.3. Overall conclusion on the market definition for coating resins

(24) For the purposes of this Decision, the Commission will discuss coating resins on the basis of chemistry and delivery technology and then potentially distinguish between industrial applications for either an EEA-wide or worldwide geographic market definition.

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24 M.9353 – Advent International Corporation / Evonik Methacrylates Business Division, paragraph 58;

25 M.8019 – Advent International / Nuplex Industries, paragraph 38.

26 See Paragraphs 103 & 104 Form CO

27 See replies to questions 6.1 – 6.4, Q3 - Questionnaire to Downstream Customers and question 13 Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

28 M.9353 – Advent International Corporation / Evonik Methacrylates Business Division; M.8019 – Advent International / Nuplex Industries.

4.2.2. Crosslinkers

4.2.2.1. Product market definition

(25) Crosslinkers are hardeners that are frequently used in coating formulations to create bonds between the resin molecule chains to solidify a coating and enhance its performance. Crosslinkers are mixed with coating resins and other coating components in a coating formulation. After application of the coating and evaporation of the solvent, the cross-linking reaction takes place at ambient or increased temperature. Both Covestro and the Parties produce crosslinkers.

(A) Past decisions of the Commission

(26) The Commission has on the basis of chemistry, previously identified two types of crosslinkers: (i) crosslinkers-amino resins, and (ii) crosslinkers-phenolic resins.[29] Regarding crosslinkers-phenolic resins, a further distinction has been made between liquid phenolics (resols) and solid phenolics (novolacs).[30] The Commission also examined a separate product market specifically for oligomers produced on the basis of hexamethylene diisocyanate ("HDI" oligomers).[31] The Commission found that HDI oligomers belong to the chemical class of polyisocyanates, which can be used as crosslinkers in coating formulations (polyisocyanate crosslinkers).[32]

(27) For crosslinkers-amino resins and crosslinkers-phenolic resins, the Commission has previously considered a further possible segmentation distinguishing between the same industrial applications as for coating resins (see paragraph (16) above).[33]

(28) For polyisocyanate crosslinkers, the Commission found that it would not be appropriate to further segment HDI oligomers into industrial applications because the same HDI oligomers can be used in any coating application without any quality or functional differences.[34]

(B) The view of the Notifying Party

(29) The Notifying Party does not contest[35] the Commission precedents and further submits[36] that there exist two additional distinct chemical classes on which crosslinkers can be based, namely aziridines (where only the Target is active) and carbodiimides (where both Parties have some limited activities). The Notifying Party submits that crosslinkers-amino resins, crosslinkers-phenolic resins, aziridines crosslinkers and carbodiimide crosslinkers should also be potentially analysed on the basis of industrial application, while polyisocyanate crosslinkers should not.

29 M.8019 – Advent International / Nuplex Industries paragraph 16 .
30 M.8019 – Advent International / Nuplex Industries paragraph 16.
31 M.8674 – BASF / Solvay's Polyamide Business, paragraphs 362 et seq.
32 M.8674 – BASF / Solvay's Polyamide Business, paragraphs 362 et seq.
33 M.8019 – Advent International / Nuplex Industries, paragraphs 16 - 30.
34 M.8674 – BASF / Solvay's Polyamide Business, paragraphs 365-367.
35 See Form CO, paragraph 114.
36 See Form CO, paragraph 109.

(C) Results of the market investigation

(30) Responses in the market investigation supported the Parties' suggestion regarding the product market definition for crosslinkers. [37]

(D) Commission's conclusions

(31) In the present case, the Commission will discuss crosslinkers on the basis of chemistry. For crosslinkers-amino resins, crosslinkers-phenolic resins, aziridines crosslinkers and carbodiimide crosslinkers, the Commission will also potentially distinguish between industrial applications, while for polyisocyanate crosslinkers not.

4.2.2.2. Geographic market definition

(A) Past decisions of the Commission

(32) The Commission has previously left open the question of whether the relevant geographic market is worldwide or EEA-wide in scope, and examined the potential effects of the proposed concentration both on a worldwide and on an EEA-wide level.[38]

(B) The view of the Notifying Party

(33) The Notifying Party submits that the geographic scope for crosslinkers is at least EEA-wide, but also submits data for worldwide markets.[39]

(C) Results of the market investigation

(34) Responses in the market investigation do not provide a clear picture as to whether the geographic market definition for crosslinkers should be EEA-wide, or worldwide. [40]

(D) Commission's conclusions

(35) In the present case, taking into account the results of the market investigation, the Commission does not find any reason to depart from the approach adopted in past cases[41] since the exact geographic market definition (EEA-wide or worldwide) for crosslinkers does not impact on the outcome of the competitive assessment of the transaction.

4.2.2.3. Overall conclusion on the market definition for crosslinkers

(36) For the purposes of this Decision, the Commission will discuss crosslinkers on the basis of chemistry. For crosslinkers-amino resins, crosslinkers-phenolic resins,

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37 See replies to Q3 - Questionnaire to Downstream Customers and Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

38 M.8019 – Advent International / Nuplex Industries, paragraphs 32-38.

39 See Paragraphs 103 & 104 Form CO.

40 See replies to Q3 - Questionnaire to Downstream Customers and Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

41 M.8019 – Advent International / Nuplex Industries, paragraphs 32-38.

aziridines crosslinkers and carbodiimide crosslinkers, the Commission will also potentially distinguish between industrial applications, while for polyisocyanate crosslinkers not. The Commission will discuss these markets for either an EEA-wide or worldwide geographic market definition.

4.2.3. Diisocyanates

4.2.3.1. Product market definition

(37) Diisocyanates are used in the production of coating components, more specifically, in the production of polyurethane resins ("PU Resins") and in the production of polyisocyanates (also referred to as polyisocyanate crosslinkers). Only Covestro produces diisocyanates. Different compounds of diisocyanates include:

(a) toluene diisocyanate ("TDI")

(b) methylene diphenyl diisocyanate MDI and monomeric MDI ("mMDI")

(c) hexamethylene diisocyanate ("HDI")

(d) isophorone diisocyanate ("IPDI")

(e) 4,4′-Dicyclohexylmethane diisocyanate ("H_{12}MDI")

(A) Past decisions of the Commission

(38) The Commission has previously considered a segmentation of diisocyanates by compound, and has found that TDI and MDI constituted distinct product markets.[42] The Commission has also considered that HDI is a distinct product market without further segmentations.[43] Finally, the Commission has previously considered a segmentation of isocyanate compounds between diisocyanates and polyisocyanates and has assessed HDI separately from HDI Oligomers (or HDI polyisocyanates).[44]The Commission concluded that HDI is an aliphatic diisocyanate,[45] as opposed to aromatic diisocyanate.

(B) The view of the Notifying Party

(39) The Notifying Party does not contest the Commission precedents and further explains that diisocyanates overall can be segmented into aromatic diisocyanates, which are used predominantly for the production of foams, and aliphatic diisocyanates, which are used predominantly for coatings applications, due to their superior light stability. Each category includes a number of different diisocyanate compounds. Aromatic diisocyanates include TDI, MDI and mMDI, whereas aliphatic diisocynates include HDI, IPDI, and H_{12}MDI. The Notifying Party submits that the possible sub-segmentation by compound (i.e. MDI, TDI) can be left open, as the Transaction does not raise competitive concerns under any plausible market definition.

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42 M.2355 – The Dow Chemical Company / EniChem S.p.A.

43 M.8674 – BASF SE / Solvay S.A.

44 M.8674 – BASF SE / Solvay S.A.

45 M.8674 – BASF SE / Solvay S.A., paragraph 362.

(C) Results of the market investigation

(40) The majority of the respondents to the market investigation took the view that each of HDI, IPDI, H_{12}MDI, TDI, MDI and mMDI could be viewed as separate markets.[46]

(D) Commission's conclusion

(41) In the present case and on the basis of paragraph (39) above, the Commission will separately assess in line with the Commission precedents each of HDI, IPDI, H_{12}MDI, TDI, MDI and mMDI.

4.2.3.2. Geographic market definition

(A) Past decisions of the Commission

(42) In previous decisions in the sector, the Commission has considered the geographic markets for the supply of diisocyanates to be at least EEA-wide in scope.[47]

(B) The view of the Notifying Party

(43) The Notifying Party does not contest the Commission precedent.

(C) Results of the market investigation

(44) The market investigation confirmed that the geographic market for diisocyanates and the sub-segments thereof is at least EEA-wide in scope and possibly worldwide.[48]

(D) Commission's conclusion

(45) In the present case and taking into account the results of the market investigation, the Commission considers the exact geographic market definition for diisocyanate compounds can be left open, since the exact geographic market definition (EEA-wide or worldwide) for crosslinkers does not impact on the outcome of the competitive assessment of the transaction.

4.2.3.3. Overall conclusion on the market definition for diisocyanates

(46) For the purposes of this Decision, the Commission concludes that the market for diisocyanates can be segmented by compound (i.e. HDI, IPDI, H_{12}MDI, TDI, MDI and mMDI) without further segmentation and without a need to decide whether the geographic market is EEA-wide or worldwide in scope as it would not impact the competitive assessement.

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46 See replies to questions 3 – 20 Q1 - Questionnaire to Upstream Competitors and questions 4 - 6.3 Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

47 M.8674 – BASF SE / Solvay S.A., paragraph 376; M.2355 – The Dow Chemical Company / EniChem S.p.A, paragraph 17; M.4177 – BASF Aktiengesellschaft / Degussa AG, paragraph 33, M.3125 – Huntsman Holdings LLC / Vantico Group S.A., paragraph 15.

48 See replies to questions 34 – 36 Q1 - Questionnaire to Upstream Competitors and questions 10 - 12 Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

4.2.4. Linear polyols

4.2.4.1. Product market definition

(47) Linear polyols are versatile intermediate chemicals with a wide range of uses such as components in the production of polyurethanes. Linear polyols can be used as inputs in the production of thermoplastic urethanes ("TPUs"), elastomers and PU Resins. The principal use of linear polyols is the fabrication of polyurethane foam. In the production of PU Resins, the linear polyols that are most commonly used are polyether and polyester diols. Polycarbonate diols, another linear polyol, are also used for the production of PU Resins, but in much smaller volumes. Only Covestro produces linear polyols.

(A) Past decisions of the Commission

(48) The Commission has previously distinguished between polyether and polyester polyols (or diols) as a result of their different physical properties and applications, finding that these constitute two distinct product markets.[49]. The Commission has not previously defined a relevant product market for polycarbonate diols.

(B) The view of the Notifying Party

(49) The Notifying Party does not contest the Commission precedent.

(C) Results of the market investigation

(50) The majority of the respondents to the market investigation took the view that separate product markets should be considered for polyester, polyether and polycarbonate diols.[50]

(D) Commission's conclusion

(51) In the present case and on the basis of paragraph (48) above, the Commission in line with the Commission precedents, will assess separately each of polyester, polyether and polycarbonate diols.

4.2.4.2. Geographic market definition

(A) Past Decisions of the Commission

(52) In previous decisions, the Commission has considered the geographic markets for the supply of polyols to be at least EEA-wide in scope.[51]

(B) The view of the Notifying Party

(53) The Notifying Party does not contest the Commission precedents.

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49 M.1796 – Bayer Aktiengesellschaft / Lyondell Chemical Company, paragraph 9; M.2355 – The Dow Chemical Company / EniChem S.p.A, paragraph 9; M.3125 Huntsman Holdings LLC / Vantico Group S.A.

50 See replies to questions 22 - 32 Q1 - Questionnaire to Upstream Competitors and Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

51 M.1796 – Bayer Aktiengesellschaft / Lyondell Chemical Company, paragraph 13; M.3125 – Huntsman Holdings LLC / Vantico Group S.A. paragraph 15.

(C) Results of the market investigation

(54) The market investigation indicated that the geographic market for polyols and the sub-segments thereof is possibly worldwide in scope.[52]

(D) Commission's conclusion

(55) In the present case, the Commission considers the exact geographic market definition can be left open as it does not impact the outcome of the competitive assessment regardless of whether it is EEA-wide or worldwide in scope.

4.2.4.3. Overall conclusion on the market definition for linear polyols

(56) For the purposes of this Decision, the Commission considers that in line with the Commission precedents, each of polyester, polyether and polycarbonate diols constitute separate markets, without a need to define whether the geographic market is EEA-wide or worldwide in scope as it would not impact the competitive assessment.

4.2.5. Solar coatings

4.2.5.1. Product market definition

(57) Solar coatings are the coatings used for solar panels and photovoltaic applications, and belong to the broader group of industrial coatings. The term industrial coating refers to products that are applied to industrial products in order to improve their surface properties, such as appearance, adhesion, wettability, corrosion resistance, wear resistance and scratch resistance. Only the Target is active in the production of solar coatings. Covestro does not have any waterborne acrylic resins in its offering corresponding to the resins the Target uses as an input for its solar coatings, nor does Covestro supply any other coating resins for solar coating applications.

(A) Past Decisions of the Commission

(58) The Commission previously[53] distinguished various industrial coatings categories which were typically defined by reference to specific applications, such as coil coatings, wood finishes, protective and marine coatings, powder coatings, metal coating, packaging coatings, automotive refinish coatings, and other industrial coatings. Solar coatings have not been separately assessed by the Commission.

(B) The view of the Notifying Party

(59) In light of the fact that Covestro does not have any waterborne acrylic resins in its offering corresponding to the resins the Target uses as an input for its solar coatings, nor does Covestro supply any other coating resins for solar coating applications, the Notifying Party submits that whether the Target's solar coatings form part of a separate market for solar coatings or belong to a broader market including also other glass coatings or even industrial coatings for non-glass applications can remain open

[52] See replies to questions 37 - 39 Q1 - Questionnaire to Upstream Competitors and Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

[53] M.4853 – PPG / SigmaKalon, paragraphs 7 et seq.; M.1182 – Akzo / Nobel Courtaulds, paragraph 9.

for the purpose of this Transaction, given that no issues arise whatever approach is taken.

(C) Results of the market investigation

(60) The market investigation did not point to a need to define a separate market for solar coatings.

(D) Commission's conclusion

(61) In the present case, the Commission considers that the exact product market definition regarding solar coatings does not impact the competitive assessment given the lack of any actual vertical relationships.

4.2.5.2. Geographic Market Definition

(A) Past Decisions of the Commission

(62) For the coatings mentioned above in paragraph (58) the Commission left the geographic market open.

(B) The view of the Notifying Party

(63) The Notifying Party submits that the geographic market comprising the Target's solar coating activities is global or at least EEA-wide. The transportation costs represent a small proportion of the average sales value ([0-5]% for overseas sales). Customers, typically glass companies without in-house coating production capabilities, tend to source coatings on a global basis. By way of example, […]. As far as the Target is concerned, […]. Among others, DSM exports solar coatings to […].

(C) Results of the market investigation

(64) The market investigation was not conclusive as to whether the possible market for solar coatings is EEA-wide or worldwide in scope.

(D) Commission's conclusion

(65) In the present case, the Commission considers that the exact geographic market definition regarding solar coatings does not impact the competitive assessment give the lack of actual vertical relationships.

4.2.5.3. Overall conclusion on the market definition for solar coatings

(66) For the purposes of this Decision, the Commission considers that the exact market definition regarding solar coatings does not impact the competitive assessment given the lack of any actual vertical relationships.[54]

[54] This theoretic only vertical relationship arises between Covestro's coating resins activities (upstream) and the Target's solar coating activities (downstream), if a broader market for waterborne acrylic resins across all applications is considered. However, Covestro does not have any waterborne acrylic resins in its offering corresponding to the resins the Target uses as an input for its solar coatings, nor does Covestro

4.3. Assessment

4.3.1. Horizontally affected markets

(67) The Transaction gives rise to a very large number of horizontal links between Covestro and the Target with regard to coating resins and crosslinkers ("coating components"). The Commission has examined all these links under all the possible market definitions, as set out in Section 4.2 above and has identified a number of affected markets.

(68) For coating resins, the following horizontally affected markets arise: :

a. Horizontally affected markets with an EEA-wide scope: (i) waterborne acrylics for industrial wood uses, (ii) waterborne acrylics for special purpose uses, (iii) waterborne polyurethanes overall, (iv) waterborne polyurethanes for adjacent coating and non-coating applications, (iv) waterborne polyurethanes for architectural uses, (v) waterborne polyurethanes for automotive OEM uses, (vi) waterborne polyurethanes for other industrial uses, (vii) solventborne saturated polyesters for adjacent coating and non-coating applications, (viii) solventborne saturated polyesters for automotive refinish uses, (ix) solventborne saturated polyesters for coil and PCM uses, (x) radiation curable polyurethanes overall, (xi) radiation curable polyurethanes for architectural uses, (xii) radiation curable polyurethanes for industrial wood uses and (xiii) radiation curable polyurethanes for other industrial uses.

b. Horizontally affected markets with a worldwide-scope: (i) waterborne polyurethanes for industrial wood uses, (ii) waterborne acrylics for special purpose uses, (iii) waterborne polyurethanes overall, (iv) waterborne polyurethanes for adjacent coating and non-coating applications, (v) waterborne polyurethanes for architectural uses, (vi) waterborne polyurethanes for automotive OEM uses, (vii) waterborne polyurethanes for special purposes, (viii) radiation curable polyurethanes overall, (ix) radiation curable polyurethanes for architectural uses, (x) radiation curable polyurethanes for industrial wood uses and (xi) radiation curable polyurethanes for other uses.

(69) For crosslinkers, the following horizontally affected markets arise:

a. Horizontally affected markets with an EEA-wide scope: (i) polyisocyanate crosslinkers overall and (ii) polyisocyanate crosslinkers for HDI oligomers;

b. Horizontally affected markets with a worldwide-wide scope: (i) polyisocyanate crosslinkers overall and (ii) polyisocyanate crosslinkers for HDI oligomers.

(70) The horizontal overlaps do not lead to any other affected markets under any of the possible market definitions set out in section 4.2 above, either at an EEA-wide or

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supply any other coating resins for solar coating applications. Thus, any input and customer foreclosure post-Transaction is unlikely. In light of this, this vertical relationship will not be further discussed in this Decision.

world-wide level, and these non-affected markets will not be further discussed in the present decision.[55].

(71) The Parties have provided market shares both on volume and value terms. The present assessment is conducted on a volume basis since no substantial differences arise for an assessment on a value basis, since on a value basis there are less affected markets and combined market shares do not vary much.

4.3.1.1. Market shares

(72) The tables below provide the Parties' combined market shares, as well as the post-merger concentration levels and the HHI deltas for all affected markets for (a) coating resins, and (b) crosslinkers.

Table 1. Parties' market shares in the EEA (2019) in volume (kt)

Coatings								
Delivery	**Chemistry**	**Segment**	**Covestro**	**Target**	**Combined**	**Post-merger HHI**	**HHI delta**	**Category**
waterborne	acrylics	Industrial Wood	<[0-5]%	[30-40]%	[30-40]%	[…]	[…]	B
waterborne	acrylics	Special Purpose	<[0-5]%	[20-30]%	[20-30]%	[…]	[…]	B
waterborne	polyurethanes	Overall	[20-30]%	[5-10]%	[20-30]%	[…]	[…]	C
waterborne	polyurethanes	Adjacent coating and non-coating applications	[30-40]%	[0-5]%	[30-40]%	[…]	[…]	B
waterborne	polyurethanes	Architectural	[0-5]%	[20-30]%	[20-30]%	[…]	[…]	A
waterborne	polyurethanes	Automotive OEM	[30-40]%	<[0-5]%	[30-40]%	[…]	[…]	B
waterborne	polyurethanes	Other Industrial	[10-20]%	[10-20]%	[20-30]%	[…]	[…]	C
solventborne	saturated polyesters	Adjacent coating and non-coating applications	[10-20]%	[10-20]%	[20-30]%	[…]	[…]	A
solventborne	saturated polyesters	Automotive Refinish	[10-20]%	[10-20]%	[20-30]%	[…]	[…]	A

[55] See Table 4 Form CO and Annex 3 to the Supplementary Letter to the Form CO (updated Annex 7 to the Form CO), submitted on 11/01/2021.

Coatings								
solventborne	saturated polyesters	Coil and PCM	<[0-5]%	[20-30]%	[20-30]%	[…]	[…]	A
radiation curable	polyurethanes	Overall	[5-10]%	[10-20]%	[20-30]%	[…]	[…]	C
radiation curable	polyurethanes	Architectural	[10-20]%	[5-10]%	[20-30]%	[…]	[…]	A
radiation curable	polyurethanes	Industrial Wood	[5-10]%	[20-30]%	[30-40]%	[…]	[…]	C
radiation curable	polyurethanes	Other Industrial	[5-10]%	[20-30]%	[30-40]%	[…]	[…]	C
Crosslinkers								
Delivery2	**Chemistry**	**Segment**	**Covestro**	**Target**	**Combined**	**Post-merger HHI**	**HHI delta**	**Category**
	polyisocyanate crosslinkers	Overall Oligomers	[20-30]%	<[0-5]%	[20-30]%	[…]	[…]	B
	polyisocyanate crosslinkers	HDI oligomers	[20-30]%	<[0-5]%	[20-30]%	[…]	[…]	B

Source: Form CO

Table 2. Parties' market shares in the worldwide (2019) in volume (kt)

Coatings								
Delivery	**Chemistry**	**Segment**	**Covestro**	**Target**	**Combined**	**Post Merger HHI**	**HHI delta**	**Category**
waterborne	acrylics	Industrial Wood	<[0-5]%	[10-20]%	[20-30]%	[…]	[…]	A
waterborne	acrylics	Special Purpose	<[0-5]%	[20-30]%	[20-30]%	[…]	[…]	A
waterborne	polyurethanes	Overall	[10-20]%	[5-10]%	[20-30]%	[…]	[…]	A
waterborne	polyurethanes	Adjacent coating and non-coating applications	[20-30]%	<[0-5]%	[20-30]%	[…]	[…]	A
waterborne	polyurethanes	Architectural	[0-5]%	[20-30]%	[20-30]%	[…]	[…]	B
waterborne	polyurethanes	Automotive OEM	[20-30]%	[0-5]%	[20-30]%	[…]	[…]	B

Coatings								
waterborne	polyurethanes	Special Purpose	[5-10]%	[10-20]%	[20-30]%	[…]	[…]	A
radiation curable	polyurethanes	Overall	[5-10]%	[10-20]%	[20-30]%	[…]	[…]	A
radiation curable	polyurethanes	Architectural	[10-20]%	[5-10]%	[20-30]%	[…]	[…]	A
radiation curable	polyurethanes	Industrial Wood	[10-20]%	[20-30]%	[30-40]%	[…]	[…]	C
radiation curable	polyurethanes	Other Industrial	[10-20]%	[10-20]%	[20-30]%	[…]	[…]	C

Crosslinkers								
	Chemistry	**Segment**	**Covestro**	**Target**	**Combined**	**Post Merger HHI**	**HHI delta**	**Category**
	polyisocyanate crosslinkers	Overall oligomers	[20-30]%	<[0-5]%	[20-30]%	[…]	[…]	B
	polyisocyanate crosslinkers	HDI oligomers	[30-40]%	<[0-5]%	[30-40]%	[…]	[…]	B

Source: Form CO

(73) For the purposes of assessing this case, the Commission grouped the affected markets in three large categories:

- The first category is composed of markets which fall under the conditions discussed in paragraph (10) above and outlined in paragraph 18 of the Horizontal Merger Guidelines, that is, the combined market share of the undertakings concerned does not exceed 25% either in the Internal Market or in a substantial part of it , ("Category A" markets);

- The second category is composed of markets which fall under the under the conditions outlined in Paragraph 20 of the Horizontal Mergers Guidelines that is, either the post-merger HHI is between 1 000 and 2 000 and the delta is below 250, or the post-merger HHI is above 2 000 and the delta is below 150 ("category B" markets);

- The third category is composed of affected markets that do not fall under either of the two above categories (the "Other Affected Markets").

(74) The Category A markets are:

a. in the EEA: (i) waterborne polyurethanes for architectural uses, (ii) solventborne saturated polyesters for adjacent coating and non-coating applications; (iii) solventborne saturated polyesters for automotive refinish uses, (iv) solventborne saturated polyesters for coil and PCM uses and (v) radiation curable polyurethanes for architectural uses;

b. Worldwide: (i) waterborne acrylics for industrial wood uses, (ii) waterborne acrylics for special purpose uses, (iii) waterborne polyurethanes overall, (iv) waterborne polyurethanes for adjacent coating and non-coating applications, (v) waterborne polyurethanes for special purpose uses, (vi) radiation curable polyurethanes overall and (vii) radiation curable polyurethanes for architectural uses.

(75) The Category B markets are:

a. In the EEA: (i) waterborne acrylics for industrial wood uses, (ii) waterborne acrylics for special purpose uses, (iii) waterborne polyurethanes for adjacent coating and non-coating applications, (iv) waterborne polyurethanes for automotive OEM uses, (v) polyisocyanate crosslinkers overall, and (vi) polyisocyanate crosslinkers for HDI oligomers;

b. Worldwide : (i) waterborne polyurethanes for architectural uses, (ii) waterborne polyurethanes for automotive OEM uses (iii) polyisocyanate crosslinkers overall, and (iv) polyisocyanate crosslinkers for HDI oligomers.

(76) The Category C markets are:

a. For the EEA: (i), waterborne polyurethanes overall, (ii) waterborne polyurethanes for other industrial uses, (iii) radiation curable polyurethanes overall; (iv) radiation curable polyurethanes for industrial wood and (v) radiation curable polyurethanes for other industrial uses;

b. Worldwide: (i) radiation curable polyurethanes for industrial wood and (ii) radiation curable polyurethanes for other industrial uses.

4.3.1.2. The Notifying Party's view

(77) The Notifying Party firstly submits that the combined shares resulting from the transaction are moderate; increments are small and numerous alternative suppliers are present and will continue to constrain the merged entity post transaction, in all instances where horizontally affected markets / segments arise. [56]

(78) According to the Notifying Party, these competitors often have a supply share that is larger than (or at least comparable to) the increment brought over by the transaction in several markets / segments. Competitors will generally have spare capacity and would be able to increase their capacity at relatively short notice without incurring prohibitive costs. These competitors could increase their production and easily absorb any increase of demand created from customers switching.

(79) Secondly[57], the Notifying Party submits that the Parties are not close competitors as they have different product and application focus.

(80) Thirdly, the Notifying Party submits that merged entity will continue to be constrained by rivals' entry and expansion[58] and it will face significant buyer power.

56 See Form CO paragraphs 196-203.

57 See Form CO paragraphs 204 – 209.

4.3.1.3. Results of the market investigation and Commission's assessment

(A) Category A and Category B markets

(81) Category A markets, both at the EEA and worldwide levels, do not give rise to competition concerns as they satisfy the criteria set out in paragraph 18 of the Horizontal Mergers Guidelines. Additionally, the Commission notes that the majority of the responses of customers[59] and of competitors[60] of the Parties for each of the products of Category A markets did not indicate any concern.

(82) For Category B markets, the Commission notes that for five out of six markets[61] at the EEA level and two out of four markets[62] at the worldwide level, the increments brought by the transaction are below [0-5]% and the HHI deltas are low (below 100),. For two[63] of the remaining markets, the increment brought by the transaction is just [0-5]% and the HHI deltas are also below 100. For the remaining market [64] the combined market share is of only [20-30]%, the increment [0-5]%, the HHI delta is […] and there are seven competitors of the Parties with market shares higher than the increment brought by the transaction. Additionally, the Commission notes that, as was the case for Category A markets, the majority of the responses of customers and of competitors of the Parties for each of the products of the Category B markets did not indicate any concern.

(83) On the basis of paragraphs (81) and (82) the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of horizontal non-coordinated effects on any of the Category A and Category B Markets.

(B) Category C markets

(84) On an EEA-wide market for waterborne polyurethanes overall, the combined market share of the Parties is [20-30]%. Covestro is already market leader pre-transaction. The increment brought over by the Target is relatively small ([5-10]%) and there are four competitors with market shares higher than this increment (Stahl [10-20]%, Allnex [10-20]%; BASF [5-10]%, A&B [5-10]%).

(85) On an EEA-wide market for or waterborne polyurethanes for other industrial uses, the combined market share of the Parties is [20-30]%. Covestro is the second biggest supplier behind Allnex and the merged entity will remain so post-transaction. The increment brought over by the Target is [10-20]%. There are two competitors with higher or equal market shares (Allnex [30-40]%, Stahl [10-20]%).

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58 See Form CO paragraphs 209 – 213.

59 See replies to Q3 - Questionnaire to Downstream Customers.

60 See replies to Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

61 (i) waterborne acrylics for industrial wood uses, (ii) waterborne acrylics for special purpose uses, (iii) waterborne polyurethanes for automotive OEM uses, (iv) polyisocyanate crosslinkers overall, and (v) polyisocyanate crosslinkers for HDI oligomers.

62 (i) polyisocyanate crosslinkers overall, and (ii) polyisocyanate crosslinkers for HDI oligomers.

63 Waterborne polyurethanes for adjacent coating and non-coating applications in the EEA and waterborne polyurethanes for automotive OEM uses worldwide.

64 Waterborne polyurethanes for architectural uses worldwide.

(86) On an EEA-wide market for or radiation curable polyurethanes overall, the combined market share of the Parties is [20-30]%. The Target is the second biggest supplier, together with Arkema, behind Allnex. The merged entity will become market leader post-transaction and the merged entity will remain so. The increment brought over by Covestro is [5-10]%. There are four competitors with market shares higher than this increment (Allnex [20-30]%, Arkema [10-20]%, Alberdingk Boley ("A&B") [10-20]%) and BASF [10-20]%).

(87) On an EEA-wide market for or radiation curable polyurethanes for industrial wood combined market share of the Parties is [30-40]%. The Target is the second bigger supplier behind Allnex. The merged entity will become market leader post-transaction. The increment brought over by Covestro is [5-10]%. There are three competitors with market shares higher than this increment (Allnex [20-30]%, Arkema [20-30]% and A&B [10-20]%).

(88) On a worldwide market definition for radiation curable polyurethanes for industrial wood, the combined market share of the Parties is [30-40]%. The Target is the second biggest supplier behind Allnex. The merged entity will become market leader post-transaction, but its market share will remain moderate. The second biggest player post-transaction has a market share close to the one of the merged entity. Moreover, the increment brought over by the Covestro is [10-20]% and there are three competitors with market shares higher than this increment (Allnex [20-30]%, Arkema [20-30]% and A&B [10-20]%).

(89) On an EEA-wide market for or radiation curable polyurethanes for other industrial uses, the combined market share of the Parties is [30-40]%. The Target is already market leader pre-transaction, but its market share remains moderate. The increment brought over by Covestro is [5-10]%. There are four competitors with higher or equal market shares than this increment (Allnex [10-20]%, Arkema [10-20]%, BASF [10-20]% and A&B [5-10]%).

(90) On a worldwide market definition for radiation curable polyurethanes for other industrial uses, the combined market share of the Parties is [20-30]%. The Target is already market leader pre-transaction, but its market share remains moderate. The increment brought over by Covestro is [10-20]%. There are two competitors with market shares higher than this increment (Allnex [10-20]% and Arkema [10-20]%).

(91) The Commission notes that the combined market shares of the Parties for the Category C markets are moderate and in any case never above [30-40]%. Post-merger HHIs and HHI deltas remain moderate as well. Furthermore, for each of these markets there are between two and four competitors with market shares equal or higher than the increment brought over by the transaction. The Commission notes that for all of these markets, either under an EEA, or a worldwide market definition the main competitors are the same well established multinational chemical companies such as A&B, Allnex, Arkema and BASF.

(92) On the demand side, the Commission notes that for each of the products of the Category C markets, the majority of the customers responding in the market

investigation indicated that they did not foresee the transaction to result either in price increase, or reduction of choice of the products in question.[65]

(93) In the same vein, for each of the products of the Category C markets, the majority of the customers responding in the market investigation and who are actually procuring these products from the Parties indicated that they have a good or very good negotiating power vis à vis the merged entity.[66] Moreover, they expect that there will be a sufficient number of credible suppliers from which they will be able to procure the volumes they would need post-transaction.[67] Overall, the majority of the customers having replied does not foresee any negative consequences stemming for the Transaction, for any of the products under consideration.[68]

(94) On the supply side, the majority of competitors of the Parties believes that for most of the products of the Category C markets, the transaction will not have a negative impact either on the price, or on the availability of volumes, given also the generally available spare production capacities.[69]

(95) The Commission notes that for two of these products, namely (i) the overall market for waterborne polyurethanes, and (ii) the market for waterborne polyurethanes for other industrial uses, the majority of responding competitors of the Parties indicated that an increase in prices and/or reduction of choice might result from the transaction. [70] Nevertheless, these negative views are not particularly substantiated.[71]

(96) Moreover, the Commission recalls that customers of the Parties did not raise any concerns in this respect. Furthermore, the Commission notes that for the overall market for waterborne polyurethanes there are four competitors with market shares above the increment brought by the Transaction, while for the market for waterborne polyurethanes for other industrial uses there are two, one of which has a market share bigger than the merged entity.

(97) On the basis of the paragraphs (84) to (96) above, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of horizontal non-coordinated effects on any of the Category C Markets.

4.3.1.4. Overall conclusion on horizontally affected markets

(98) In conclusion, for the reasons set out above, in paragraphs (81) to (97), the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of horizontal non-coordinated effects concerning (a) coating resins and (b) crosslinkers.

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65 See replies to questions 12 - 16, Q3 - Questionnaire to Downstream Customers.

66 See replies to question 11, Q3 - Questionnaire to Downstream Customers.

67 See replies to question 11, Q3 - Questionnaire to Downstream Customers.

68 See replies to question 11, Q3 - Questionnaire to Downstream Customers.

69 See replies to questions 66, 68, 69, 75, 76 and 77, Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

70 See replies to questions 66, 69 and 77, Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

71 See replies to questions 66.1, 69.1 and 77.1, Q2 – Questionnaire to Downstream Competitors (Coating components manufacturers).

4.3.2. Vertically affected markets

4.3.2.1. Introduction

(99) The Transaction gives rise to a large number of vertical relationships as a result of Covestro's presence on the upstream markets concerning certain input products (e.g. polyols and isocyanates) that are used for the production of coating components ("input materials for coating components").

(100) Vertical relationships arise between, on the one hand, the upstream activities of Covestro relating to:

(a) the supply of several diisocyanate compounds, in particular:

– the aromatic diisocyanate compounds: TDI and mMDI;

– the aliphatic diisocyanate compounds: HDI, IPDI, H_{12}MDI; and

(b) the supply of linear polyols for use in PU Resins, in particular:

– polyether diols;

– polyester diols; and

– polycarbonate diols;

and on the other hand, the combined downstream activities of Covestro and of the Target relating to the supply of PU Resins, namely

– PUDs;

– Radiation Curable PUDs;

– polyurethane-acrylic hybrids ("PUD-PAC hybrids");

– polyurethane-acrylic-alkyd hybrids ("PUD-PAC-alkyd hybrids");

– SB poly-urethanes; and

– Radiation curable urethane acrylates.

(101) The above listed vertical relationships give rise to several vertically affected markets at EEA and worldwide level, which are summarised in a schematic format in Tables 3 and 4 below.

Table 3. Overview of vertically affected markets on basis of EEA-wide upstream supply shares (volume in mt, 2019)

Resins	Diisocyanates					Linear polyols		
	Aliphatic diisocyanates			Aromatic diisocyanates		Poly-ether diols	Poly-ester diols	Poly-carbonate diols
	HDI	IPDI	$H_{12}MDI$	TDI	mMDI			
PUDs	UD	D	D	D	D	D	D	D
Radiation Curable PUDs	UD	D	D	D	D	D	D	D
PUD-PAC hybrids	UD	D	D	D	D	D	D	D
PUD-PAC-alkyd hybrids	UD	D	D	D	D	D	D	D
SB poly-urethanes	U	x	x	x	x	x	x	x
Radiation curable urethane acrylates	U	x	x	x	x	x	x	x

D: Affected due to supply share of 30% or more on downstream coating resin market or segment
U: Affected due to supply share of 30% or more on upstream inputs to PU Resins
UD: Affected due to supply share of 30% or more on both upstream and downstream markets / segments
x: not affected

Source: Form CO

Table 4. Overview of vertically affected markets on basis of worldwide upstream supply shares (volume in mt, 2019)

Resins	Diisocyanates					Linear polyols		
	Aliphatic diisocyanates			Aromatic diisocyanates		Poly-ether diols	Poly-ester diols	Poly-carbonate diols
	HDI	IPDI	$H_{12}MDI$	TDI	mMDI			
PUDs	x	U	U	x	x	x	x	x
Radiation Curable PUDs	D	UD	UD	D	D	D	D	D
PUD-PAC hybrids	x	U	U	x	x	x	x	x
PUD-PAC-alkyd hybrids	x	U	U	x	x	x	x	x
SB poly-urethanes	x	U	U	x	x	x	x	x
Radiation	x	U	U	x	x	x	x	x

Resins	Diisocyanates					Linear polyols		
	Aliphatic diisocyanates			Aromatic diisocyanates		Poly-ether diols	Poly-ester diols	Poly-carbonate diols
	HDI	IPDI	$H_{12}MDI$	TDI	mMDI			
curable urethane acrylates								

D: Affected due to supply share of 30% or more on downstream coating resin market or segment
U: Affected due to supply share of 30% or more on upstream inputs to PU Resins
UD: Affected due to supply share of 30% or more on both upstream and downstream markets / segments
X: not affected

Source: Form CO

(102) The vertical relationships between the Parties do not lead to any other vertically affected market under any of the possible market definitions set out in section 4.2 above, either at an EEA-wide or world-wide level, and these non-affected markets will not be further discussed in the present decision.[72]

4.3.2.2. Market shares

(103) At the upstream level: Covestro's EEA supply share for HDI amounts to [30-40]% (volume 2019). Moreover, at worldwide level its share amounts to [20-30]% (volume 2019).[73] At the worldwide level, $H_{12}MDI$ and IPDI are affected with supply market shares of [30-40]% and [30-40]% respectively (volume 2019). These products are not affected in the EEA ([20-30]% and [20-30]% respectively). As explained below in paragraph (105), the market shares of all of the other products on the upstream markets are below 30%.

(104) At the downstream level: on the following markets or segments the Parties' combined EEA supply share of coating resins exceed 30% (volume 2019).

72 See Reply of the Notifying Party to RFI 4.

73 In M.8674 – BASF SE / Solvay S.A, […].

Table 5. EEA supply share on coating resins markets (volume in mt 2019)

Resin chemistry	Application	Covestro	Target	Combined Market share
Waterborne Polyurethanes	*Adjacent coating and non-coating applications*	[30-40]%	[0-5]%	[30-40]%
	Automotive OEM	[30-40]%	<[0-5]%	[30-40]%
Radiation Curable Polyurethanes	*Industrial Wood*	[5-10]%	[20-30]%	[30-40]%
	Packaging			[30-40]%
	Other industrial	[5-10]%	[20-30]%	[30-40]%
Waterborne polyurethane-alkyd acrylic hybrids[74]	*Architectural*	[0-5]%	[30-40]%	[30-40]%
Waterborne polyurethane acrylic hybrids[75]	*Packaging*	[0-5]%	[30-40]%	[30-40]%

Source: Form CO

Table 6. Worldwide supply share on coating resins markets (volume in mt 2019)

Resin chemistry	Application	Covestro	Target	Combined Market share
Radiation Curable PUDs	*Industrial Wood*	[10-20]%	[20-30]%	[30-40]%

Source: Form CO

(105) Therefore, for the EEA three categories of vertically affected markets can be distinguished:

a. Those where the merged entity's market shares will be above 30% both upstream (because of Covestro's market share in HDI (at EEA level [30-40]%), H_{12}MDI (at worldwide level [30-40]%), and IPDI (at worldwide level [30-40]%)) and downstream because of the Parties' combined EEA-wide

74 Only the Target is active in this segment.

75 Only the Target is active in this segment.

supply share in certain PU Resin markets/segments[76]. As regards this category of vertically affected markets, the Commission assesses the risk of input and customer foreclosure;

b. Those where the merged entity's market shares downstream are below 30% (all remaining PU Resins segments) but which are affected because of Covestro's market share in HDI (at EEA level [30-40]%), H_{12}MDI (at worldwide level [30-40]%), and IPDI (at worldwide level [30-40]%) at the upstream level. As regards this category of markets, the Commission's assessment focusses on possible input foreclosure; and

c. Those where the merged entity's upstream market shares would remain below 30%[77], but which are affected because the Parties' combined downstream shares in certain PU Resin markets/segments are above 30% or more as shown above in Tables 5 and 6. As regards this category of markets, the Commission's assessment will focus on possible customer foreclosure.

4.3.2.3. The Notifying Party's view

(106) The Notifying Party submits that there are no foreclosure risks.

(107) With regard to input foreclosure,[78] the merged entity would not have the ability to engage in an input foreclosure strategy with respect to the supply of any diisocyanates or linear polyols vis-à-vis the downstream PU Resin markets in light of Covestro's limited position in the merchant market supply. In particular, with regard to HDI, the Notifying Party submits that HDI is not an important input for PU Resins. In addition, the merged entity would not have the ability to pursue an input foreclosure strategy because it could not affect the overall availability of HDI for downstream suppliers of PU Resins. The supply of HDI in the EEA is currently "long", with capacity materially outstripping demand. The merged entity would also lack the incentive to foreclose downstream competitors as (i) it would not be profitable to engage in an input foreclosure strategy and (ii) given that the Parties' combined supply share in each of the downstream PU Resin markets is limited, the merged entity would, if at all, only capture a small portion of any diverted demand.

(108) With regard to customer foreclosure on any of the vertically affected markets for PU Resins,[79] the Notifying Party submits that the merged entity will not have the ability to foreclose upstream suppliers of each of the input products, given that PU Resins represent only one of a range of downstream uses for the relevant products, and thus PU Resins customers are generally not a critical or even a particularly important customer base for upstream suppliers. In addition, there are numerous downstream competitors and thus alternative customers for upstream suppliers. The Target's

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76 Radiation curable PUD for industrial wood and other industrial applications; waterborne polyurethanes for for adjacent coating and non-coating applications, architectural, and automotive OEM applications; and waterborne urethane acrylic hybrids for packaging applications.

77 EEA: H12MDI ([20-30]%), IPDI ([20-30]%), Polycarbonate diols ([10-20]%), Polyester diols ([5-10]%), Polyether diols ([20-30]%), TDI ([20-30]%), and mMDI ([10-20]%); worldwide: HDI ([20-30]%), Polycarbonate diols ([5-10]%), Polyester diols ([0-5]%), Polyether diols ([10-20]%), TDI ([20-30]%), and mMDI ([10-20]%).

78 See Form CO, paragraphs 416 – 431.

79 See Form CO, paragraphs 432 – 436.

demand for the relevant input products does not represent a material proportion of either EEA or global demand for the relevant products, and indeed in many cases represents only a negligible share.

4.3.2.4. Results of the market investigation and Commission's assessment

(A) Results of the market investigation

(109) As regards input foreclosure, the majority of the responding downstream competitors in resins who purchase HDI, IPDI and H_{12}MDI from the Parties as inputs confirmed that the merged entity will not have the ability to foreclose them of the supply with HDI, IPDI and H_{12}MDI as inputs for PU resins.[80] The majority of the upstream competitors that is to say other producers of HDI, IPDI and H_{12}MDI confirmed that they would be in a position to increase their sales should the demand increase.[81] Similarly, the majority of both the inputs' customers and of the input's producers took the view that there will remain alternative suppliers of HDI, IPDI, and H_{12}MDI in case the merged entity ceased the supply that the merger entity will lack the incentive to stop supplying inputs for PU resins.[82]

(110) With regard to customer foreclosure and the ability of the merged entity to stop sourcing inputs from third parties, the vast majority of upstream competitors confirmed there will remain sufficient alternative customers to purchase inputs for resins. Furthermore, the vast majority of upstream competitors considered that the merged entity would lack the incentive to engage in customer foreclosure. However, a couple of respondents explained that the Target could start post-transaction sourcing internally its needs for PU Resins inputs.

(B) Commission's assessment of input foreclosure

(111) The Commission considers that the Transaction will not lead to input foreclosure with regard to (i) the upstream activities of Covestro relating to the supply of the aliphatic diisocyanate compounds: HDI, IPDI, H_{12}MDI; and (ii) the combined downstream activities of Covestro and of the Target relating to the supply of PU Resins (categories of affected markets listed under (a) and (b) in paragraph (105) above).

(112) As regards the ability of the merged entity to engage in input foreclosure, the Commission first notes that Covestro does not hold a very significant position (below 40%) in the merchant market for:

- HDI: [30-40]% in the EEA
- IPDI: [30-40]% worldwide
- H_{12}MDI: [30-40]% worldwide

[80] See Replies to questions 55, 58, and 61 of Q2 Questionnaire to Downstream Competitors (Coating components manufacturers).

[81] See Replies to questions 41, 48, and 56 of Q1 - Questionnaire to Upstream Competitors.

[82] See Replies to questions 42, 49 and 57 of Q1 - Questionnaire to Upstream Competitors, and Replies to questions 54, 57, and 60 of Q2 Questionnaire to Downstream Competitors (Coating components manufacturers).

(113) Second, there are several alternative suppliers of each of the inputs from which non-vertically integrated coating resin suppliers could source, in the event that the merged entity were to deteriorate supply conditions to competing suppliers of PU Resins. The merged entity would therefore not be able to engage in an input foreclosure strategy as it could not affect the overall availability of these inputs on the market.

(a) HDI - in the EEA : Vencorex [20-30]%, Wanhua [10-20]%, BASF [10-20]%, Evonik <[0-5]%

(b) IPDI - worldwide: Evonik ([50-60]%), Vencorex ([5-10]%), BASF ([5-10]%).

(c) H_{12}MDI - worldwide: Wanhua ([30-40]%), Evonik ([20-30]%).

(114) Third, the merged entity would not have the ability to pursue an input foreclosure strategy because it could not affect the overall availability of HDI for downstream suppliers of PU Resins. The supply of HDI in the EEA is currently "long", with capacity materially outstripping demand. In the last five years, Vencorex ([20-30]% market share by volume) has expanded HDI capacity significantly through the conversion of its TDI production plant in Pont-de-Claix (France) into an HDI production plant and would immediately seize the opportunity to increase supply in response to any deterioration of supply by the Merged Entity. As less than [0-5]% of the production of HDI is used for PU Resins, any attempt by the merged entity to reduce the availability of HDI for use in PU Resins would only require a limited supply response from Vencorex relative to its overall HDI capacity.

(115) Fourth, the above is also confirmed by the market investigation as explained in paragraph (109).

(116) As regards the incentive of the merged entity to engage in input foreclosure, the Commission first notes that the overall demand that potentially could be diverted from downstream competitors to the merged entity is small. The proportion of PUDs/PU Resins supplied in the EEA that are produced using HDI as an input is very small. Therefore, any hypothetical input foreclosure strategy could only affect a very low percentage of the downstream PU Resin activities of competitors.

(117) Second, given that the Parties' combined supply share in each of the downstream PU Resin markets is limited, the merged entity would only capture a small portion of any diverted demand. The overall downstream gain in market share would thus be negligible. On an overall resin chemistry level, the Parties' combined market shares never exceed 30%[83]

- either in the EEA: [20-30]% in waterborne polyurethanes, [10-20]% in waterborne polyurethane acrylic hybrids, [20-30]% in waterborne polyurethane alkyd acrylic hybrids, [10-20]% in solventborne polyurethanes and [0-5]% in radiation curable urethane acrylates,

[83] See revised Table 25 of the Form CO, Vertically affected markets / segments – EEA (2019 – volume) submitted on 11 January 2021.

- or worldwide, [20-30]% in waterborne polyurethanes, [5-10]% in waterborne polyurethane acrylic hybrids, [10-20]% in waterborne polyurethane alkyd acrylic hybrids, below [0-5]% in solventborne polyurethanes and [0-5]% in radiation curable urethane acrylates,

(118) Third, the lack of incentive to engage in an input foreclosure strategy is also demonstrated by the fact that Covestro currently supplies […] in PU Resins and that there has never been any attempt by Covestro to foreclose competing resin producers.

(119) Fourth, the above is also confirmed by the market investigation as explained in paragraph (109).

(B.i) No impact on effective competition between downstream competitors

(120) Regardless of whether the merged entity would have the ability or the incentive to engage in an input foreclosure strategy, such strategy would have no impact on effective competition given the number of available suppliers who are in a position to increase supply if necessary.

(C) Customer foreclosure

(121) With regard to the merged entity's ability to engage in customer foreclosure (affected markets listed under (a) and (c) of paragraph (105)), the Commission first notes that PU Resins represent only one of a range of downstream uses for the relevant input products, and thus PU Resins customers are generally not a critical customer base for upstream suppliers. In particular:

(a) TDI: the predominant use of TDI is the production of flexible polyurethane foams. This accounts for more than [80-90]% of TDI production in the EEA and worldwide. In contrast, the use of TDI in coatings accounts for an estimated [5-10]% of TDI production.

(b) MDI: the predominant use of MDI is the production of rigid polyurethane foams. This accounts for more than [60-70]% of global MDI demand. The use of MDI in coatings accounts for only approximately [0-5]% of global MDI demand.

(c) HDI: the predominant use of HDI is the production of polyisocyanate crosslinkers. Covestro estimates that polyisocyanates account for more than [90-100]% of HDI production in the EEA and worldwide with less than [0-5]% of HDI going into the production of PU Resins.

(d) IPDI: In addition to the production of PU Resins, IPDI is also used in the production of polyisocyanate crosslinkers. Covestro estimates that polyisocyanate crosslinkers account for between 20-30% of IPDI production in the EEA and worldwide.

(e) H_{12}MDI: In addition to the production of PU Resins, H_{12}MDI is also used in the production of TPUs/elastomers. Covestro estimates that TPUs/elastomers account for between 20-30% of H_{12}MDI production in the EEA and worldwide.

(f) Polyether diols: polyether polyols are used predominantly for the production of foams. This accounts for approximately [80-90]% of global polyether polyol demand. The use of linear polyether polyols in coatings accounts for only approximately [5-10]% of global polyether polyol demand.

(g) Polyester diols: polyester polyols are used predominantly for the production of foams and to a lesser extent, elastomers. The use of polyester diols in coatings accounts for only approximately [10-20]% of global polyester demand.

(h) Polycarbonate diols: Polycarbonate diols are used for the production of TPUs and elastomers (an estimated [20-30]% of global demand), as well as coatings and adhesives (an estimated [80-90]% of global demand).

(122) Second, post-transaction there will remain sufficient downstream competitors and thus alternative customers for upstream suppliers. The Target's demand for the relevant input products does not represent a material proportion of either EEA or global demand for the relevant product. Therefore, any switch of the Target's merchant demand to internal supply represents a small part of the overall demand that would not foreclose upstream competitors.[84] In particular:

(a) TDI: The Target's demand for TDI accounts for less than [0-5]% of the merchant market for TDI both on an EEA and a global basis.

(b) mMDI: The Target's demand for MDI accounts for less than [0-5]% of the merchant market for mMDI on both an EEA and a global basis.

(c) HDI: The Target's demand for HDI accounts for less than [0-5]% of the merchant market for HDI on both an EEA and a global basis.

(d) IPDI: The Target's demand for IPDI accounts for less than [5-10]% of the merchant market for IPDI on both an EEA and global basis. Already today, the Target sources […] of its global demand for IPDI from Covestro and […] on an EEA basis.

(e) H_{12}MDI: The Target's demand for H_{12}MDI accounts for roughly [10-20]% of the merchant market for H_{12}MDI on an EEA and roughly [5-10]% on a global basis. Already today, the Target sources […] of its global demand for H_{12}MDI from Covestro and […] on an EEA basis.

(f) Polyether diols: The Target's demand for polyether diols accounts for less than [0-5]% of the merchant market for polyether diols on both an EEA and global basis.

(g) Polyester diols: in the EEA, the Target relies on its own captive production for more than […] of its polyester diol requirements. The Target's merchant market demand for polyester diols accounts for less than [0-5]% of the merchant market for polyester diols on both an EEA and a global basis.

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84 As Covestro produces and sources internally inputs for PU resins, the customer foreclosure analysis is relevant only for the volumes of the Target post-transaction that are not already supplied by Covestro.

(h) Polycarbonate diols: The Target's demand for polycarbonate diols accounts for less than [0-5]% of the merchant market for polycarbonate diols on both an EEA and a global basis.

(123) Third, the above is also confirmed by the market investigation as explained in paragraph (110).

(124) As regards the incentive of the merged entity to foreclose upstream competitors, the Commission first considers that such as strategy would have a negligible effect on upstream markets because there will remain a sufficient number of customers on the market that would keep acquiring inputs for PU Resins (indicatively, Axalta, BAsf, Dow, Evonik, Lubrizol, Vencorex and more).[85]

(125) Second, as mentioned above these inputs also serve for a number of other production streams. Therefore, upstream competitors supplying these inputs are not exclusively dependent to coating resins producers.

(126) Third, the above is also confirmed by the market investigation as explained in paragraph (110).

(C.i) No impact on effective competition between upstream competitors

(127) Regardless of whether the merged entity would have the ability or the incentive to engage in a customer foreclosure strategy, such strategy would have no impact on effective competition given the number of available alternative customers that will continue purchasing inputs for PU resins.

4.3.2.5. Overall conclusion on vertically affected markets

(128) In conclusion, for the reasons set out above, in paragraphs (99) to 4.3.2.4(C.i) the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of non-horizontal effects concerning (i) the upstream markets for diisocyanates (i.e. the markets for HDI, H12MDI and IPDI) and linear polyols (i.e. polyether, polyester, and polycarbonate diols) and (ii) the downstream market for PU resins.

85 As explained above, the customer foreclosure analysis is focused on the volumes of the Target not already purchased from Covestro. Covestro was already fully vertically integrated pre-transaction, which means the transaction does not create any foreclosure concerns vis-à-vis Covestro's volumes.

5. CONCLUSION

(129) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

For the Commission

(Signed)
Margrethe VESTAGER
Executive Vice-President