

**Summary of Commission Decision****of 21 March 2018****declaring a concentration compatible with the internal market and the functioning of the EEA Agreement****(Case M.8084 — Bayer/Monsanto)***(notified under document number C(2018) 1709)***(Only the English text is authentic)****(Text with EEA relevance)****(2018/C 459/10)**

*On 21 March 2018 the Commission adopted a Decision in a merger case under Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings <sup>(1)</sup>, and in particular Article 8(2) of that Regulation. A non-confidential version of the full Decision, as the case may be in the form of a provisional version, can be found in English on the website of the Directorate-General for Competition, at the following address: [http://ec.europa.eu/comm/competition/index\\_en.html](http://ec.europa.eu/comm/competition/index_en.html)*

**1. INTRODUCTION**

- (1) The Decision declares the acquisition of Monsanto Company ('Monsanto') by Bayer Aktiengesellschaft ('Bayer'; together with Monsanto 'the Parties') by way of a purchase of shares (the 'Transaction') compatible with the internal market and the EEA Agreement, in accordance with Article 2(2) and Article 8(2) of the Merger Regulation and Article 57 of the EEA Agreement.

**2. PROCEDURE**

- (2) On 14 September 2016, Bayer announced that it would acquire control of Monsanto. Bayer notified the Transaction to the Commission on 30 June 2017.
- (3) By decision dated 22 August 2017 <sup>(2)</sup>, the Commission found that the Transaction raised serious doubts as to its compatibility with the internal market and initiated proceedings pursuant to Article 6(1)(c) of the Merger Regulation.
- (4) The in-depth investigation confirmed the competition concerns preliminarily identified.
- (5) On 16 February 2018, the Notifying Party submitted the final commitments ('Final Commitments') that render the Transaction compatible with the internal market.
- (6) The draft Decision was consulted with the Member States during the Advisory Committee on Concentrations on 9 March 2018, which provided a favourable opinion. The Hearing Officer provided his favourable opinion on the proceedings in his report which was issued on 12 March 2018.
- (7) In its reasoned request of 4 April 2018, as modified on 6 April 2018, the Notifying Party proposed to amend the Final Commitments, as described below under sections 6.1.3 and 6.1.5. By decision of 11 April 2018, the Commission approved the modification of the Final Commitments <sup>(3)</sup>.

**3. THE PARTIES**

- (8) **Bayer**, incorporated in Germany, is active in four areas: pharmaceuticals, consumer health, agriculture ('Bayer Crop Science'), and animal health. The competitive effects of the Transaction mainly concern the Bayer Crop Science division. Bayer Crop Science operates three business segments: (i) Crop Protection; (ii) Seeds; and (iii) Environmental Science. Bayer is also active in developing biological technologies and developing and providing digital agriculture services.
- (9) **Monsanto**, incorporated in the USA, is an agriculture company which produces seeds and crop protection products (focused on glyphosate herbicide which it commercialises under the 'Roundup' brand). Additionally, Monsanto is involved in research on agricultural biologicals. Monsanto also provides farmers with digital agriculture services through 'The Climate Corporation'.

<sup>(1)</sup> OJ L 24, 29.1.2004, p. 1.

<sup>(2)</sup> OJ C 286, 30.8.2017, p. 1.

<sup>(3)</sup> Commission Decision of 11.4.2018 amending commitments in Case M.8084 — Bayer/Monsanto, C(2018) 2208 final.

#### 4. UNION DIMENSION

- (10) The undertakings concerned have a combined aggregate worldwide turnover of more than EUR 5 000 million [Bayer: EUR [...]; Monsanto: EUR [...]]. Each of them has a Union-wide turnover in excess of EUR 250 million [Bayer: EUR [...]; Monsanto: EUR [...]], but they do not achieve more than two thirds of their aggregate Union-wide turnover within one and the same Member State. The Transaction therefore has a Union dimension pursuant to Article 1(2) of the Merger Regulation.

#### 5. EXPLANATORY MEMORANDUM

##### 5.1. The relevant product markets

- (11) The Decision addresses the following areas/markets where the Parties are active:
- (a) Vegetable seeds (horizontal non-coordinated effects on actual price/product competition);
  - (b) Broad acre crop seeds, including oilseed rape, cotton and wheat (horizontal non-coordinated effects on actual and potential price/product competition);
  - (c) Broad acre crop traits (horizontal non-coordinated effects on actual and potential price/product competition as well as on innovation competition);
  - (d) Crop protection, including agricultural and non-agricultural non-selective herbicides (horizontal non-coordinated effects on actual and potential price/product competition as well as on innovation competition) and herbicide tolerance systems (horizontal non-coordinated effects on innovation competition), seed treatment (horizontal non-coordinated effects on potential competition and vertical effects), fungicides (horizontal non-coordinated effects on innovation competition), insecticides (horizontal non-coordinated effects on innovation competition), microbial crop efficiency products (horizontal non-coordinated effects on innovation competition), bee health products targeting varroa mites (horizontal non-coordinated effects on innovation competition);
  - (e) Digitally-enabled agronomic prescriptions of fungicides for broad acre crops (horizontal non-coordinated effects on potential price/product competition).

##### 5.1.1. *Vegetable seeds*

- (12) The Commission has found that the relevant product market encompasses both licensing and commercialisation of vegetable seeds for each vegetable crop. The Commission has also found that each vegetable crop constitutes a separate product market, but consists of highly differentiated segments. The Commission has therefore considered that it is relevant to make the competitive assessment of price effects at segment level.
- (13) The Commission has used the segmentation suggested by the Parties which has been found to be reliable. The segmentation distinguishes segments by: (i) Growing environment (open field, netted and plastic house, or glass house); (ii) Seed type (open-pollinated or hybrid); (iii) Use (fresh or processing); (iv) Whether or not the grown plant has been bred as rootstock; and (v) Features of the grown vegetable (vegetable type, size, colour, flavour, etc.).
- (14) The Commission has found that the geographic scope of the vegetable seeds markets is national due to national registration, national distribution and weak price arbitrage between countries. However, the Commission has also noted that there are other factors which suggest that the market for vegetable seeds might be broader than national.

##### 5.1.2. *Broad acre crop seeds*

- (15) The Commission has analysed the markets for broad acre crops where the Parties' activities overlap: oilseed rape, cotton and wheat.

##### 5.1.2.1. *Oilseed rape ('OSR')*

- (16) The OSR industry is a two-stage industry, comprising (i) the breeding of new OSR varieties; and (ii) the commercial production of seed from these varieties and the sale of the seed to customers. Bayer and Monsanto both breed and commercialise new varieties of OSR throughout the EU, as well as in other parts of the world. Both have fully-fledged breeding programmes in Europe.
- (17) The Commission considers that the relevant product markets for OSR are: (i) the upstream market for the licensing of germplasm for the purposes of breeding new OSR varieties; (ii) the upstream market for the licensing of OSR varieties for the purposes of commercialisation; and (iii) the downstream market for the commercialisation of OSR seeds.

- (18) The Commission leaves open whether the downstream markets should be further sub-divided between the two types of OSR that are cultivated across Europe: winter oilseed rape ('WOSR') and summer (or spring) oilseed rape ('SOSR').
- (19) The Commission considers that: (i) the geographic scope of the market for the licensing of germplasm is EU-wide; (ii) the market for the licensing of OSR varieties is EU-wide in scope; and (iii) the geographic scope of the market for the commercialisation of OSR varieties is national.

#### 5.1.2.2. *Cotton*

- (20) The Commission considers that the relevant market for the purposes of the competitive analysis is the licensing of cotton varieties for production and sale. The geographic scope of such market is EU-wide.

#### 5.1.2.3. *Wheat*

- (21) The Commission considers two relevant product markets: (i) the upstream market for the licensing of wheat varieties for production and sale (but not breeding); and (ii) the downstream market for the commercialisation of wheat seeds.
- (22) Furthermore, the Commission has found that the geographic scope of the market for wheat is EU-wide for the (upstream) licensing market and national for the (downstream) commercialisation market.

#### 5.1.3. **Broad acre crop traits**

- (23) The Commission has found that upstream of seed breeding and commercialisation, there are three different market layers for traits. These are: (i) the trait discoveries licensing layer; (ii) the single traits licensing layer; and (iii) the stacks licensing layer. The Commission considers that the trait discoveries licensing layer does not constitute a product market but it is rather an innovation space, whereas it considers that there are separate product markets for the licensing of stacks on the one hand, and the licensing of traits on the other hand.
- (24) In the single traits licensing layer, the relevant product markets are identified by a specific functionality such as tolerance to a specific herbicide as well as a specific crop. In the case of Insect Resistance ('IR') functionalities, a further sub-segmentation of IR traits is defined based on the family of insects the trait provides resistance to.
- (25) For the stacks licensing layer, the relevant product markets are distinguishable by crop.
- (26) The Commission considers that the relevant geographic markets for the licensing of traits and the licensing of stacks are global.

#### 5.1.4. **Crop protection**

##### 5.1.4.1. *Weed management*

##### (A) Agricultural non-selective herbicides

- (27) Non-selective herbicides ('NSH') are products which have a broad spectrum of action and kill both grasses and broadleaf weeds.
- (28) The Commission considers that the relevant product market for agricultural herbicides should be segmented, on the one hand, between selective herbicides and NSH and, on the other hand, within NSH, between perennial crops (the only segment where the Parties materially overlap in the EEA) and non-perennial crops.
- (29) The Commission also considers that crop protection product markets are national in geographic scope.

##### (B) Non-agricultural non-selective herbicides

- (30) The Commission considers that the relevant product markets for non-agricultural NSH should be segmented between (i) industrial vegetation management ('IVM'); and (ii) turf and ornamentals.
- (31) Moreover, the Commission considers that, within IVM, brush killers and railways applications constitute separate relevant product markets.
- (32) The Commission further considers that, still within the IVM segment, NSH should also be grouped according to the timing of their application in two categories comprising respectively (a) pre-emergent products and pre-post-emergent products; and (b) post-emergent products and pre-post-emergent products.

- (33) The Commission considers the relevant markets are national in geographic scope.

(C) Herbicide tolerance systems

- (34) Weed management systems combine non-selective herbicides typically with crops tolerant to these herbicides, either through genetic modification of such crops ('GM Systems') or, more rarely, through the use of natively tolerant, i.e. non-genetically modified, crops ('Non-GM Systems'). GM Systems and Non-GM Systems are referred together as 'HT Systems'.
- (35) The Commission considers that all HT Systems for a given crop compete in a differentiated relevant product market and that the corresponding innovation spaces includes innovation in HT Systems both across crops (especially at early research stages) as well as for each relevant crop (such as soy, cotton, corn, OSR/canola, rice, wheat).
- (36) The Commission considers that the relevant geographic scope of the innovation spaces for HT Systems is worldwide.

5.1.4.2. *Seed treatment*

- (37) Seed treatment is the treatment (or dressing) of seeds with specific formulations to protect them in the early stages of their development. Seed treatment therefore targets diseases and soil-dwelling or early season insects ('fungicidal and insecticidal seed treatment'), as well as nematodes ('nematicidal seed treatment').
- (38) The Commission considered that seed treatment constitutes a separate product market rather than a particular type of application of crop protection products. Seed treatment is further divided by crop and by indication (e.g., insecticides and fungicides). As regards nematicidal seed treatment, the Commission considers that the relevant product market to retain for the competitive analysis is seed treatment for nematode control on a crop by crop basis.
- (39) As regards the downstream market to the seed treatment market, for the purposes of the Decision, it can be left open whether the downstream product market includes also untreated seeds.
- (40) The Commission considers that seed treatment product markets are national in geographic scope.

5.1.4.3. *Fungicides*

- (41) Fungicides are agrochemicals that control diseases; they are used to prevent the deterioration of plants and plant products caused by fungi and moulds.
- (42) The Commission has carried out its competitive assessment of fungicides by crop/disease. The Commission also considers that the relevant innovation space for its assessment is innovation in fungicides for different crop/diseases or groups of diseases.
- (43) The Commission also considers that it can be left open whether chemical and biological fungicides constitute separate product markets since the Transaction does not give rise to concerns about its compatibility with the internal market under any plausible market definition.
- (44) The fungicide product markets are national in geographic scope. The geographic dimension of innovation spaces can be left open.

5.1.4.4. *Insecticides*

- (45) Insecticides are products designed to control insects that damage cultivated crops, particularly food crops. They can be applied in a number of different ways, including foliar, soil and seed treatment application.
- (46) The Commission has carried out its competitive assessment of insecticides by crop/pest. The Commission considers that the relevant innovation space for its assessment is insecticides on a pest basis.
- (47) The Commission considers that it can be left open whether insecticides should be further divided between biologicals and chemicals since the Transaction does not give rise to concerns about its compatibility with the internal market under any plausible market definition.
- (48) The insecticide product markets are national in geographic scope, while the geographic dimension of innovation spaces can be left open.

#### 5.1.4.5. *Microbial crop efficiency products*

- (49) Microbials (also known as 'biological' crop protection products) are comprised of microorganisms, typically a bacterium, virus or fungus. They can be used to protect crops (biopesticides) and/or to enhance plant productivity and fertility (biostimulants and biofertilisers).
- (50) Biostimulants and biofertilisers are designed to improve crop health, yield and tolerance to stress conditions and unlike biopesticides, do not have any direct actions against pest or disease. They are also referred to as 'crop efficiency' products.
- (51) The product market definition for microbials crop efficiency products as well as the relevant geographic market definition can be left open since the Transaction does not give rise to concerns about its compatibility with the internal market under any plausible market definition.
- (52) The Commission considers that the relevant innovation space for its assessment is innovation in microbial crop efficiency products.

#### 5.1.4.6. *Bee health*

- (53) The Commission considers that there is a separate product market for products which target and control varroa mite infestations of bee colonies. The Commission also considers that market segmentation between biologicals and chemicals products or on the basis of the active ingredient/mode of action or mode of administration does not appear justified.
- (54) The Commission further considers that the relevant innovation space is bee health products targeting *varroa destructor*.
- (55) The bee health product markets are national in geographic scope, while the geographic dimension of innovation spaces can be left open.

#### 5.1.5. ***Digitally-enabled agronomic prescriptions***

- (56) Digital agriculture refers to the collection of data and information about farms with the aim of providing tailored advice or aggregated data to farmers to increase farm productivity. Digital agriculture is currently in its infancy but developing fast.
- (57) Within digital agriculture, digitally-enabled prescriptions refer to recommendations or advice on the selection and application (e.g. doses, timing) of inputs (e.g. crop protection products) provided at a geographically increasingly granular level (e.g. field, field-zone or narrower) for a farmer to implement. The recommendations or advice in question is generated by an analytics agronomic engine based on large sets of public and proprietary data.
- (58) The Commission concludes that digitally-enabled prescription services constitute a distinct category of services within digital agriculture since (i) they required, inter alia, more layers of data, more complex algorithms and broader capabilities; and (ii) they recommend a concrete action plan for farmers, with a high level of granularity and customisation. The Commission considers that this should be further segmented by input product (e.g. fungicides etc.) and by crop groupings (e.g. broad acre crops).
- (59) With regard to the relevant geographic market, the Commission considers that it is national in scope, although in its assessment the Commission also took into account the broader regional geographic context where relevant.

### 5.2. **Competitive assessment**

#### 5.2.1. ***Vegetable seeds***

- (60) The Commission has assessed horizontal effects on price/product competition in vegetable seeds markets. In the EU, the Parties' activities overlap in 16 vegetable crops (e.g. tomatoes, cucumbers, etc.). Each crop is further divided into segments (e.g. cherry tomatoes grown in greenhouses).
- (61) The price competition for vegetable seeds takes place at segment/country level. The competitive assessment has therefore to be conducted in several hundreds of segment/country combinations. In view of this high number of segment/country combinations to be assessed, the Commission has applied filters based on market share and concentration levels (HHI and HHI delta) in order to identify markets where the Transaction would significantly impede effective competition. For certain markets, the Commission has conducted a more in-depth assessment based on structural and qualitative factors.

- (62) On this basis, the Commission has considered that the Transaction would significantly impede effective competition due to non-coordinated effects and/or creation or strengthening of a dominant position in a number of vegetable seeds markets across the EU, corresponding to approximately 200 segment/country combinations.

#### 5.2.2. **Broad acre crop seeds**

##### 5.2.2.1. *Oilseed rape ('OSR')*

- (63) Monsanto is currently the market leader in the EEA. Bayer's EEA market share in WOSR is around [0-5] % at both commercialisation and breeder levels. The Commission considers that the available combined market shares may understate the Parties' competitive position, in particular in light of the expected success on Bayer's leading products in Canola and its overall strategy for OSR in the EEA.
- (64) Bayer is currently the global leading player in OSR. The Commission's investigation showed that, pre-Transaction, Bayer had credible plans and strong capabilities to become a leading OSR player in the EU and that such plans were already showing some positive results. The Transaction with Monsanto risks jeopardising such plans with the likely effect of harming OSR customers.
- (65) Moreover, the Commission considers that Bayer is likely to become a strong competitor in national OSR markets where Monsanto is also strong.
- (66) For these reasons, the Commission concludes that the Transaction would significantly impede effective competition in relation to OSR seeds in France, Ireland, Estonia and the UK, because it is likely that it would eliminate an important competitive constraint and result in non-coordinated effects on product and price competition.

##### 5.2.2.2. *Cotton*

- (67) The overlap in the Parties' activities in the cotton seed business in the EU arises in the (upstream) market for licensing of cotton seeds for commercialisation.
- (68) The Commission considers that the Transaction brings together the two most important competitors in the EU market for the licensing of cotton varieties for production and sale.
- (69) The Parties' strong position in the EU market for licensing of cotton varieties for production and sale follows from their strong global position in cotton seeds. The market investigation has revealed that the strengths of the Parties include the quality of their germplasm pool, their breeding capacities, their R & D programs, their ability to develop traits and their capacity to access cotton customers.
- (70) For these reasons, the Commission considers that the Transaction would significantly impede effective competition in relation to licensing of cotton varieties for production and sale in the EU because it is likely that it would strengthen or at least create a dominant position, due to horizontal non-coordinated effects.

##### 5.2.2.3. *Wheat*

- (71) Since none of the Parties is currently active in the commercialisation of wheat seeds in the EU, the Commission has assessed whether Bayer and Monsanto would be potential competitors.
- (72) The Commission finds that, at present, there is a significant likelihood that Bayer would [business plans] grow into an effective competitive force. Monsanto's commercial wheat activities take place in the US. Monsanto's commercial wheat seed business is entirely made up of open pollinated varieties. The Commission finds that there is no significant likelihood that Monsanto would grow into an effective competitive force in Europe in a reasonable period of time.
- (73) Moreover, the Commission considers that, in light of Bayer's strategy focused on hybrid wheat, if Monsanto were to enter with open pollinated varieties, Bayer and Monsanto would not be close competitors in the EU.
- (74) Finally, the Commission finds that, at present, there is a sufficient number of other wheat competitors, which would maintain sufficient competitive pressure after the Transaction.
- (75) For these reasons, the Commission considers that the Transaction is unlikely to significantly impede effective competition on the markets for wheat seeds in Europe.

### 5.2.3. **Broad acre crop traits**

- (76) The Commission is competent to assess the effects of the Transaction on the markets for the licensing of traits for the following reasons. First, the Transaction has direct and immediate effects on European players active on the global upstream market for the licensing of traits. On this market the Transaction affects directly important European seed companies, which in-license Bayer's and/or Monsanto's traits, and also affects other European market players that are competitors to the Parties.
- (77) Second, GM traits are not as such banned from Europe. In fact some GM traits are deployed and GM crops are grown in Europe. A Monsanto IR trait conferring corn resistance to Lepidoptera, called MON810, is approved for cultivation in a few Member States, namely Spain, Portugal, the Czech Republic and Slovakia. Third, the EU is a very significant importer of GM crops. The Parties estimate that total imports in the EEA of GM crops amount to approximately USD 13 billion, the vast majority of which carry Bayer's or Monsanto's traits. Fourth, not all traits are of the GM type. Some non-GM traits are commercially available today, and both Bayer and Monsanto are innovators in non-GM traits and consider the EU as an important market.

#### 5.2.3.1. *Product competition*

- (78) The Commission has in particular assessed the competition between Bayer's Liberty-Link and Monsanto's Roundup Ready across corn, OSR/canola, cotton, and soybean. In soybean the Commission has identified overlap in HT traits, and in particular glyphosate HT (Roundup Ready) and glufosinate HT (LibertyLink) with limited alternatives. In cotton, the Parties overlap in HT and IR traits, and competitors provide for limited alternatives. In OSR the Commission has identified overlap in HT traits with limited constraints from competitors. In corn the Commission concludes that the overlap in HT traits would strengthen Monsanto's dominant position in corn HT trait market.
- (79) Further the Commission has identified horizontal overlap in stacks: there are a number of overlaps of close competing products in soybean, cotton, and OSR, with often limited alternatives from competitors.
- (80) On that basis the Commission considers the Transaction would significantly impede effective price and product competition (actual and potential) in each of the following markets: (i) soybean HT; (ii) cotton HT; (iii) Cotton IR Lep; (iv) Corn HT; (v) OSR/canola HT; (vi) soybean stacks; (vii) cotton stacks; (viii) OSR/canola stacks.
- (81) In HT OSR the transaction would create a dominant position.

#### 5.2.3.2. *Innovation competition in traits*

- (82) Industry players engage in innovation efforts to discover and develop new traits. When considering both the downstream product markets and the upstream technology markets, innovation should not be understood as a market in its own right, but as an input activity for both the upstream technology markets and the downstream product markets. This however does not prevent the Commission from assessing the impact of the Transaction at the level of innovation efforts by the Parties and its competitors. The Commission has assessed innovation competition taking place in innovation spaces consisting of groupings of crop/functionality combinations.
- (83) Trait R & D is characterised by high barriers to entry and expansion and for HT and IR traits the R & D is highly concentrated with just four integrated players. The Parties are leading innovators in traits. Further the Commission's patent data showed that the Parties are important innovators for several innovation spaces and for cross-crop inventions in weed control and insect control.
- (84) The Commission considers that the Transaction is likely to significantly impede effective competition as regards innovation competition in areas where research and development activities of the Parties overlap, and the Parties are close competitors with limited alternatives. These areas are soy HT, IR and SCN, cotton HT and IR, OSR HT, non GM HT wheat and cross crop research. The Commission considers that the Transaction is likely to significantly impede effective competition as regards innovation competition in the overall innovation in HT and IR for these crops by eliminating actual or potential innovation competition between the Parties.

### 5.2.3.3. *Strengthening of Monsanto's dominant position*

- (85) Monsanto is dominant in the relevant markets but also at industry level because of Monsanto's leverage of the RoundupReady platform across crops. In this context, Bayer is one of the few remaining competitors and at the same time particularly active and well-resourced that could challenge Monsanto. Against this background, the Commission's investigation has confirmed a likely risk of foreclosure of other trait competitors. The Commission considers that the Transaction would strengthen a dominant position of Monsanto.

### 5.2.4. **Crop protection**

#### 5.2.4.1. *Weed management*

- (A) Agricultural and non-agricultural non-selective herbicides (non-coordinated effects on actual and potential product and price competition)
- (86) In the EEA, Monsanto only sells glyphosate, mostly under the Roundup brand. Glyphosate is the highest selling crop protection AI globally, largely because of its use over herbicide-tolerant crops, but also in the EEA. Monsanto is also developing [pipeline products].
- (87) In the EEA, Bayer manufactures and sells NSH chiefly based on the glufosinate AI. Bayer also sells limited quantities of glyphosate formulations. Bayer currently plans to launch [pipeline product]. Finally, Bayer has a number of different pipeline projects ([NSH lines of research 1, 2 and 3]) which target Monsanto's glyphosate franchise.
- (88) As regards overlaps between currently available products in the EEA, the Parties have high combined national market shares with an increment under all plausible market definitions both in agricultural uses and non-agricultural uses (i.e. industrial vegetation management such as roads, railways, etc.), likely leading to non-coordinated effects or even the creation/strengthening of dominant positions. The market investigation confirmed that, while the Parties' products are differentiated, they do compete head-to-head for a significant number of needs and are close competitors, if only because they are the two closest of at most three NSH in the EEA.
- (89) Also the Commission has found that the Parties are working to preserve or if possible even strengthen their positions in agricultural NSH markets through the launch of closely competing forthcoming products.
- (90) The Commission considers that, although regulatory pressure appears to affect NSH in the EEA, it does not affect all relevant national markets and appears to affect a competing AI the most, therefore making glyphosate and glufosinate even closer competitors.
- (91) The Commission has also assessed the competitive constraint from third party competitors. Overall the Commission considers it unlikely that competitors would constitute a significant competitive constraint post-Transaction.
- (92) For these reasons, the Commission considers that the Transaction would significantly impede effective competition in relation to agricultural NSH for perennial crops and to non-agricultural NSH (pre-post-emergent and post-emergent for IVM uses) in several Member States.
- (B) Non-selective herbicide innovation (non-coordinated effects on innovation competition)
- (93) With respect to innovation competition involving forthcoming and early pipeline products, the investigation revealed direct overlaps between Monsanto's [pipeline products] (which also includes a collaboration with Sumitomo on a novel PPO chemistry) and Bayer's early pipeline (which also includes [NSH lines of research 1, 2 and 3]) tailored to attack the glyphosate franchise in all its uses (burndown, over-the-top of herbicide-tolerant crops, and perennial crops). The Commission investigation revealed that the Parties are important and close competitors in the NSH innovation space.
- (94) The Commission considers likely that the Parties' incentives to independently pursue their R & D efforts which are in close competition with each other would be reduced post-Transaction.
- (95) The Commission's investigation has also found that the constraint that would be exercised post-Transaction by the remaining competitors would be insufficient.



- (96) For these reasons, the Commission considers that the Transaction would significantly impede effective competition in relation to NSH innovation because it would likely eliminate an important and close competitive constraint leading to potential harm to innovation competition in NSH by combining the Parties' respective innovation capabilities and product portfolios in NSH.

(C) Herbicide tolerance systems (non-coordinated effects on innovation competition)

- (97) While HT systems are currently not significantly used in the EEA because HT GM traits are not generally approved, the Commission considers itself competent to assess systems globally for the same reasons as explained above with regard to broad acre traits and trait stacks (see paragraphs 76-77), which are one of the key components of such systems.
- (98) The Transaction would cause non-coordinated effects on innovation for the independent systems for which Bayer and Monsanto have followed parallel tracks and would continue to do so absent the Transaction, including in non-GM HT systems for wheat where [business plans] very few [business plans] players appear to be active.
- (99) In particular, both Parties are working on additional layers based on the [NSH line of research 2] and [NSH line of research 3] modes of action to complement their respective HT Systems across crops and globally, with both Bayer and Monsanto [pipeline product] having notably close parallel efforts in [the NSH line of research 3 mode of action].
- (100) In addition, both Parties have developed strong capabilities to discover and develop [pipeline product], and Bayer is currently working on [pipeline product].
- (101) The Commission considers likely that the Parties' incentives to independently pursue their R & D efforts in HT Systems which are in close competition with each other would be reduced post-Transaction.
- (102) Moreover, the Commission considers that there is a limited constraint from innovation efforts of competitors in this area in view of high barriers to entry for innovation both in NSH and traits — two key components of HT Systems — as well as specifically for HT Systems.
- (103) The Commission considers that the Transaction would significantly impede effective competition in relation to innovation in HT Systems because it would eliminate important competitive constraints the Parties exercise pre-Transaction.

5.2.4.2. *Seed treatment*

(A) Nematicidal seed treatment (potential competition)

- (104) There are currently no nematicidal seed treatments sold in the EEA. Both Parties are planning to launch nematicidal seed treatments in the EEA in the near future.
- (105) The Commission considers that the Parties are important and close competitors in markets for nematicidal seed treatment in [crops] across the EEA. The market investigation indicates that [integration plans].
- (106) The Parties' competitors are considerably smaller and lack the capabilities as well as scale and scope of the larger players.
- (107) The Commission concludes that the Transaction would significantly impede effective competition in relation to nematicidal seed treatment in [crops], in all EEA Member States where these crops are grown, because it is likely that it would eliminate an important competitive constraint and result in non-coordinated effects on product and price competition.

(B) Fungicidal and Insecticidal seed treatment (vertical effects)

- (108) Bayer is a leading seed treatment player in the EEA, particularly in insecticidal seed treatment for corn, while Monsanto is no longer active in seed treatment in the EEA [...]. Hence, there is no overlap between the Parties in the EEA with regard to insecticidal and fungicidal seed treatment. Yet, the Transaction gives rise to a vertical relationship between the *upstream* market for seed treatment and the *downstream* market for (treated) seeds where both Bayer and Monsanto are active.

- (109) As regards insecticidal seed treatment, the Transaction gives rise to affected market in relation to insecticidal seed treatment for corn and OSR in several Member States.
- (110) While Bayer has a strong position in seed treatment on several of these markets, the Commission considers that Bayer is not likely to preserve it due (i) to evolving regulatory situation and (ii) the likely imminent entrance of new players on the market.
- (111) Therefore, the Commission considers that post-Transaction the Parties would not likely have the ability and incentive to engage in an input foreclosure strategy to the detriment of players on the market for corn seeds treated with insecticidal seed treatment.
- (112) Moreover, the Commission considers that post-Transaction the Parties would not have significant market power in the *downstream* markets.
- (113) As regards fungicidal seed treatment, on the two affected market *upstream* (Austria and UK) Bayer is merely active as a reseller of generic products that can be produced and sold by other suppliers. Furthermore, the investigation indicated that, while on the national market concerned Bayer is the only supplier, at EEA level there other suppliers that might enter the Austrian and the UK markets.

#### 5.2.4.3. Fungicides (innovation competition)

- (114) There are no overlaps in the EEA for fungicides, on the basis that Monsanto does not currently sell any of these products in the EEA. Overlaps between Bayer and Monsanto are limited to overlaps in innovation.
- (115) The investigation indicated that Bayer and Monsanto are not close competitors in innovation and there is a sufficient number of competitors active in the same innovation spaces, which would maintain sufficient competitive pressure after the Transaction.
- (116) In light of the evidence available to it, the Commission considers that the Transaction would not significantly impede effective competition with respect to innovation competition in fungicides.

#### 5.2.4.4. Insecticides (innovation competition)

- (117) There are no overlaps in the EEA on the product market for insecticides, on the basis that Monsanto does not currently sell any of these products in the EEA. Overlaps between Bayer and Monsanto are limited to overlaps in innovation.
- (118) In light of the evidence available to it, the Commission considers that the Transaction would not significantly impede effective competition with respect to innovation on insecticides.

#### 5.2.4.5. Microbial Crop Efficiency Products (innovation competition)

- (119) There is no current overlap between the Parties in biostimulant or biofertilisers in the EEA, on the basis that Bayer does not sell any products in the EEA at the moment.
- (120) The Commission finds that although the proposed Transaction will combine two important players in biologicals, there will continue to be numerous other players with important innovation capabilities and with the ability to bring new products to the market.
- (121) On balance, the Commission considers that the Transaction would not significantly impede effective competition in relation to microbial crop efficiency seed treatment, both in terms of product and price competition and innovation competition.

#### 5.2.4.6. Bee health (innovation competition)

- (122) There are no overlaps in the EEA on the product market for bee health products targeting varroa mites, on the basis that Monsanto does not currently sell any of these products in the EEA. Overlaps between Bayer and Monsanto are limited to overlaps in innovation.
- (123) The Commission considers the evidence available is not sufficient to establish to the requisite standard that the Transaction would significantly impede effective competition with respect to innovation competition in bee health products targeting varroa mites in the EEA.

#### 5.2.5. Digitally-enabled agronomic prescriptions

- (124) The Commission considers that (i) Bayer and Monsanto are potential competitors in the market for the provision of digitally-enabled prescriptions of fungicides for broad acre crops.
- (125) Bayer [pipeline product].

- (126) Monsanto about to launch its digital agriculture platform in the EEA, FielView and [pipeline product].
- (127) Moreover, the Commission considers that (ii) absent the Transaction, Bayer and Monsanto are likely to impose important competitive constraints on each other and on other competitors. Monsanto is considered the leader in digital agriculture globally and Bayer is a leading digital agriculture player in Europe; and both companies have the broad capabilities required to develop and improve digitally-enabled prescriptions, including access to significant proprietary and third-party agronomic data.
- (128) Furthermore, (iii) Bayer and Monsanto are only comparable to a limited number of competitors which are unlikely to exercise a sufficient degree of competitive pressure post-Transaction regarding digitally-enabled prescriptions of fungicides for broad acre crops in the EEA.
- (129) Additionally, the Commission considers that: (iv) digital agriculture, including digitally-enabled prescriptions, is characterised by first mover advantage; and that (v) following the Transaction, Bayer's innovation efforts in digital agriculture are likely to be in whole or in part discontinued.
- (130) Therefore, the Commission considers that the Transaction would significantly impede effective competition in relation to digitally-enabled agronomic prescriptions due to the elimination of an important competitive constraint in the market, in particular in the market for the provision of digitally-enabled prescriptions of fungicides for broad acre crops in all EEA Member States where the Parties [pipeline product].

#### 5.2.6. *Integration of seeds and crop protection products (conglomerate effects)*

- (131) Bayer is a leading crop protection player globally whereas Monsanto is a leading traits, seeds and digital agriculture player globally. The Commission conducted a detailed assessment of the likelihood that the Transaction would significantly impede effective competition in the EEA due to conglomerate effects resulting in the foreclosure of competitors, in particular due to the bundling of the Parties' crop protection and seeds products, possibly facilitated by digital agriculture.
- (132) The Commission assessed the ability and the incentive of the merged entity to engage in bundling strategies both at the distributor and at the grower level, as well as the likely impact of such strategies on competition.
- (133) The Commission's investigation has not confirmed that the Parties have sufficient market power in general and in particular power over distributors (which themselves appear to have a strong degree of buyer power) or growers (who appear to be reluctant to receive recommendations and suggestions for bundles from input providers) in order to successfully engage in bundling strategies.
- (134) Moreover, since GM traits are hardly cultivated in Europe, the additional market power brought about by the Transaction is limited.
- (135) In any event, based on the available evidence, even if the Parties were able to pursue bundling strategies, the share of the market foreclosed for single product players would be small and a sufficient number of rivals would still remain.
- (136) Furthermore, the remaining rivals would likely have the ability and incentive to effectively react.
- (137) In addition, the Parties' emerging activities in digital agriculture in the EEA are also not considered likely to change the above-mentioned conclusions with respect to potential bundling in the medium term because they are currently only being developed and launched. Conclusions regarding their impact on facilitating bundling are difficult to draw in view of the emerging nature of these business models.
- (138) On balance therefore, while the merged entity may try to engage in some bundling strategies in the future, it is not possible for the Commission to conclude that the Transaction would have a sufficient probability of having significant anticompetitive effects due to bundling.

#### 5.2.7. *Non-competition concerns*

- (139) During the merger proceedings, a number of third parties expressed to the Commission concerns regarding the potential effects of the Transaction which were not related to the protection of effective competition, for example concerning environment, sustainable development and public health, as well as the agricultural sector.

- (140) While the Commission considered these submissions seriously, it has assessed the compatibility of the Transaction with the internal market based on the test set out in Article 2(2) of the Merger Regulation, taking into account within its assessment of the competition effects of the Transaction's non-competition concerns, only to the extent permitted and required under the Treaty and the Merger Regulation, for example in the context of the assessment of innovation competition.

## 6. REMEDIES

- (141) In order to render the Transaction compatible with the internal market the Notifying Party submitted on 2 February 2018 the First Commitments, which were market tested by the Commission.
- (142) The market test was largely positive both on the scope of the remedy and on BASF as buyer of the BASF remedy package, but identified a few shortcomings which the Notifying Party sought to address by submitting the Final Commitments on 16 February 2018.
- (143) The Final Commitments have two main components: (i) a commitment to divest businesses and assets relating to broad acre crop seeds and traits, crop protection and digital agriculture<sup>(1)</sup> to BASF (the 'BASF Divestment Package'); and (ii) a commitment to divest Bayer's global vegetable seeds business (the 'Vegetable Seeds Divestment Business').

### 6.1. BASF Divestment Package

- (144) The Final Commitments identify BASF as purchaser of the BASF Divestment package and contain an upfront buyer clause, meaning the Transaction can only be implemented after the Commission has approved (1) BASF as the purchaser of the BASF Divestment Package; and (2) the final sale and purchase agreements.
- (145) In the Decision, the Commission does not make a final assessment of whether BASF is a suitable purchaser nor whether the agreements between the Notifying Party and BASF are consistent with the Decision and the Final Commitments. This is because the final agreements between Bayer and BASF are not yet concluded and because a number of issues concerning the suitability of BASF as a purchaser require further investigation. The Commission will conduct such assessment separately and after the adoption of the Decision. The Commission has nevertheless taken into account the assets/capabilities of BASF, as the proposed Purchaser, in the assessment of the Final Commitments.

#### 6.1.1. The Broad Acre Divestment Businesses

- (146) The Final Commitments on the Broad Acre Divestment Businesses entail the divestiture by Bayer of its entire global broad acre crop seeds and traits business (including research activities), subject to certain limited carve-outs.
- (147) The Broad Acre Divestment Businesses also includes key personnel and a number of transitional services agreements to be provided by Bayer to BASF.
- (148) The Commission considers that the Final Commitments, by requiring Bayer to divest the Broad Acre Divestment Businesses, will remove the horizontal overlaps in all the broad acre crop seeds and broad acre crop traits markets where the Commission has identified competition concerns. The divestiture of the Broad Acre Divestment Businesses will also ensure that Monsanto's dominant position in broad acre crop traits markets is not further strengthened. Finally, the divestiture of Bayer's trait research activities will also address the concerns identified by the Commission in regard to innovation competition.

#### 6.1.2. The GA Divestment Business and Glyphosate Assets

- (149) The GA Divestment Business is Bayer's full global glufosinate business, without carve-outs. It includes all tangible and intangible assets and personnel, including 15 Key Personnel. A number of transitional and longer-term supply agreements are put in place to ensure its viability and competitiveness from day one and in the longer term.

---

<sup>(1)</sup> On 11 April 2018, the Commission approved Bayer's request to modify the commitments as regards crop protection (seed treatment) and digital agriculture (see paragraph 7).

- (150) The Glyphosate Assets include all of Bayer's current and forthcoming glyphosate (agricultural and non-agricultural) non-selective herbicides in the EEA only (Bayer retains these products outside the EEA). They include all relevant personnel, including 6 Key Personnel. They do not include production assets, but a number of transitional and longer-term supply agreements are put in place to ensure their viability and competitiveness from day one and in the longer term.
- (151) The GA Divestment Business and Glyphosate Assets remove the entire overlap between the Parties' existing glyphosate and glufosinate products in (agricultural and non-agricultural) non-selective herbicides in the EEA, and address the Commission's concerns in agricultural and non-agricultural non-selective herbicides in the EEA.

#### 6.1.3. *The Seed Treatment Assets* <sup>(1)</sup>

- (152) The Seed Treatment Assets include in particular the assets necessary to enable the global divestment of Bayer's Poncho, VOTiVO, Poncho/VOTiVO, VOTiVO/RedigoM, VOTiVO 2.0, Poncho/VOTiVO 2.0, COPeO, and ILeVO seed treatment businesses and pipeline product to BASF. The Seed Treatment Assets include, but are not limited to, intellectual property rights, all data and know-how, all product registrations and pending regulatory submissions, sales and marketing assets, and contracts specific to the Seed Treatment Assets. Bayer also commits to supply BASF these products at variable cost for a limited period of time (until BASF can establish an alternative source of production).
- (153) The Final Commitments on the Seed Treatment Assets will eliminate the horizontal overlaps between the Parties' respective activities with regards to nematocidal seed treatment and hence will address the Commission's concerns.

#### 6.1.4. *The [NSH lines of research 1, 2 and 3] Data Transfers and Licences*

- (154) The objective of the [NSH lines of research 1, 2 and 3] Data Transfers and Licences is to replicate the competitive position held by Bayer absent the Transaction in innovation for non-selective herbicides and HT System (in combination with the divestiture of Bayer's traits research organisation as part of the Broad Acre Divestment Businesses).
- (155) The [NSH lines of research 1, 2 and 3] Data Transfers and Licences include field data and know-how as well as an exclusive licence for applications in non-selective herbicides. They include one to two lead scientists as Key Personnel for each line of research, as well as the option for BASF to offer employment to an additional three Bayer employees – to be considered Key Personnel – working on any of the three lines of research.
- (156) The [NSH lines of research 1, 2 and 3] Data Transfers and Licences address the Commission's concerns in innovation for non-selective herbicides and HT Systems (in combination with the divestiture of Bayer's traits research organisation as part of the Broad Acre Divestment Businesses and supply agreements for isoxaflutole).

#### 6.1.5. *Digital Agriculture Assets* <sup>(2)</sup>

- (157) The objective of the divestment of Bayer' Digital Agriculture Assets is to enable BASF to replicate the competitive position held by Bayer absent the Transaction.
- (158) The Final Commitment comprises a full divestment to BASF of Bayer's digital agriculture business worldwide, with a limited licence back to Bayer outside of North America.

#### 6.2. *Vegetable Seeds Package*

- (159) The Vegetable Seeds Divestment Business consists of Bayer's global vegetable seeds business, including legal entities, sites, assets, brands, employees/key personnel, customer lists, etc. with limited carve-outs.
- (160) One of the criteria for the Purchaser is that the Purchaser is a new entrant, i.e. does not already control (directly or indirectly) any vegetable seeds business. This criterion will ensure the same number of players as before the Transaction in vegetable seeds markets.

<sup>(1)</sup> The description of the Seed Treatment Assets reflects the modified Final Commitments as approved by the Commission on 11 April 2018 (see paragraph 7).

<sup>(2)</sup> The description of the Digital Agriculture Assets reflects the modified Final Commitments as approved by the Commission on 11 April 2018 (see paragraph 7).

- (161) The divestiture of the Vegetable Seeds Divestment Business therefore removes the horizontal overlaps between the activities of Bayer and Monsanto in relation to vegetable seeds. The Commission also considers the Vegetable Seeds Divestment Business to be a viable and competitive business. There has been interest expressed from potential purchasers.

#### 7. CONCLUSION

- (162) For the reasons mentioned above, the Decision concludes that the proposed concentration will not significantly impede effective competition in the internal market or in a substantial part of it.
- (163) Consequently the notified concentration should be declared compatible with the internal market and the EEA Agreement, in accordance with Article 2(2) and Article 8(2) of the Merger Regulation and Article 57 of the EEA Agreement.
-