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C(2018) 6112 final

<p>In the published version of this decision, some information has been omitted, pursuant to articles 30 and 31 of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...]</p>	<p style="text-align: center;">PUBLIC VERSION</p> <p>This document is made available for information purposes only.</p>
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**Subject: SA.49580 (2017/N) – Hungary – Regional investment aid to BorsodChem Zrt.**

Sir,

**1. PROCEDURE**

(1) By electronic notification registered on 21 December 2017 the Hungarian authorities notified to the Commission regional aid in favour of BorsodChem Zrt.. The Commission services requested further information on 9 February 2018 (2018/014615) and 8 May 2018 (2018/043606), which was submitted on 11 March 2018 (2018/025382) and on 30 July 2018 (2018/105604) respectively. On 3 July 2018, a meeting between the Commission services, the Hungarian authorities and the aid beneficiary took place.

**2. DETAILED DESCRIPTION OF THE AID MEASURE**

**2.1. Objective of the aid measure**

(2) The Hungarian authorities intend to promote regional development by granting regional aid for an initial investment conducted by the large undertaking BorsodChem Zrt. in Kazincbarcika. The objective of the investment project is to increase the vertical integration of BorsodChem Zrt.'s existing methylene diphenyl diisocyanate (hereinafter "MDI") production plant in Kazincbarcika by setting up an aniline production plant. Aniline is the key intermediate product for the production of MDI. Kazincbarcika is situated in the Borsod-Abaúj-Zemplén County, in the Észak-Magyarország region (HU 31 Northern Hungary), an area eligible for regional aid under Art. 107(3)(a) TFEU, with a standard regional aid ceiling of 50% under the

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Hungarian regional aid map for the period from July 2014 to 2020<sup>1</sup> (hereinafter "Regional Aid Map"). The project is expected to create at least 50 new direct jobs.

## **2.2. The beneficiary**

- (3) The beneficiary of the measure is BorsodChem Zrt. (hereinafter "BorsodChem"), a fully owned subsidiary of Mount Tai Chemical Holding (hereinafter "Mount Tai"). Mount Tai's ultimate parent company is Wanhua Industrial Group Co. Ltd. (hereinafter "WIG"), an investment holding company seated in Yantai (China).
- (4) WIG operates globally through various subsidiaries in more than 10 countries and provides petro-and-coal chemicals, MDI and polyurethane (hereinafter "PU") derivatives, construction energy-saving materials, and agricultural strawboard products. In 2016 WIG had a turnover of EUR 4 757 million and employed 13 399 people globally.
- (5) BorsodChem is a producer of MDI, toluene diisocyanate (hereinafter "TDI") and polyvinyl chloride (hereinafter "PVC") resins, base chemicals and specialty chemicals. These chemicals are used as raw materials for a wide range of goods in various industries; e.g. MDI is primarily used in the automotive industry, manufacturing, construction and refrigerators. The MDI produced by BorsodChem is particularly used for the following end-products: rigid foam, case elastomers, adhesives and binders. BorsodChem has its headquarters in Kazincbarcika and is one of the largest employers of North Eastern Hungary.
- (6) BorsodChem has 9 majority owned subsidiaries of which four are located outside of Hungary. Whereas the Czech subsidiary, BC-MCHZ s.r.o. (hereinafter "BC-MCHZ"), manufactures aniline and specialty amines, the other three BorsodChem subsidiaries located outside of Hungary are not production facilities, but trade with BorsodChem's products.
- (7) The Hungarian authorities confirmed that BorsodChem is not a company in difficulty within the meaning of the Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty.<sup>2</sup>

## **2.3. The investment project**

### ***2.3.1. The notified project***

- (8) The notified investment project concerns the vertical integration of BorsodChem's existing Hungarian MDI manufacturing plant by adding a facility for the production of aniline, a key and irreplaceable raw material for the production of MDI, which was not produced in the establishment before implementing the aided investment project. So far, the BorsodChem plant in Kazincbarcika did not have an own aniline production but relied on intra-company supplies (from Ostrava in CZ), intra-group supplies from China, and, to a very limited extend, on supplies from other suppliers from plants in the EEA ([1-3]\* % of the total aniline need in 2016 and [1-3] % in 2017).

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<sup>1</sup> SA.37718 (2013/N), OJ C 172 of 06.06.2014 p.13., amended by SA.46346 (2016/N), OJ C 4 of 06.01.2017 p. 1.

<sup>2</sup> OJ C 249, 31.7.2014, p. 1–28

\* [...] business secret

- (9) The to be created aniline production capacity will not lead to increased MDI production, but will replace the current intra-group imports of the beneficiary from outside the EEA (China). The project's main objective is the simplification and centralisation of MDI supply chain as well as the reduction of environmental risks and of logistic costs of transportation.
- (10) The production of aniline consists of several chemical reactions which require other chemical materials as well. This is the reason why the investment project into the aniline plant includes the construction of both a mononitrobenzene plant (hereinafter "MNB"), and a weak nitric acid plant<sup>3</sup> (hereinafter "WNA"). These two materials are necessary and inevitable key materials for the production of aniline. Due to the inseparability of the raw materials of aniline, the weak nitric acid and nitrobenzene plants are usually set-up together with the aniline plant. This is why these form integrated parts of aniline production and can be considered as one investment. MNB and WNA produced as a result of the investment will be solely and completely used for the downstream aniline production, these products will not be sold separately to third-parties. Hereinafter the aniline production plant and the plants to process WNA and MNB together will be referred to as "aniline plant."
- (11) Aniline is an organic compound that is used as a base for more complex chemicals. The largest field of application of aniline lies in the production of MDI, for which it cannot be replaced by other materials. Aniline is also used as an intermediate for rubber processing chemicals such as vulcanisations accelerators, antioxidants and stabilisers and for the production of agrochemicals, such as pesticides and herbicides. Minor applications include dyes and pigments, pharmaceuticals, amines and explosives.
- (12) BorsodChem will not sell any of its aniline output on the merchant market for the production of any other product, but will use all of its aniline output for its production of MDI in Kazincbarcika. [...] it is very exceptional that an aniline producer would sell aniline on the merchant market as this would simply increase the market shares of competitors on the MDI market.
- (13) The planned facility has a theoretical maximum capacity of 200kt per year. However, taking into account BorsodChem's current needs of aniline and other constraining factors there are no plans to increase the amount of aniline production over [ $< 150$  kt] per year, which is the quantity needed for MDI production in Kazincbarcika. The capacity of the aniline plant is furthermore limited by the lack of raw materials on the beneficiary's premises. In order to obtain the amount of raw materials necessary to maximize BorsodChem's aniline production to 200kt per year, significant additional investments would be needed.
- (14) Works on the investment started on 23 May 2018 and are expected to be completed in [...] 2021.

### ***2.3.2. Eligible investment costs***

- (15) The eligible investment costs amount to HUF 45 432 million (EUR 145.3 million<sup>4</sup>) in nominal value, which is HUF 44 459 million (EUR 142 million) in present value<sup>5</sup>.

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<sup>3</sup> A WNA plant already exists at BorsodChem's establishment in Kazincbarcika, but a further WNA plant is needed to supply the production of aniline. The new WNA plant will only serve the aniline production.

<sup>4</sup> Figures expressed in EUR are given on the basis of an exchange rate of 312.68 EUR/HUF, applicable at the time of notification.

Tables 1 and 2 below present the breakdown of the eligible costs in both nominal and present values in HUF and EUR respectively:

*Table 1: Breakdown of eligible investment costs (nominal and discounted in HUF millions)*

	<b>Nominal/ Discounted</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
<b>Land</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Buildings</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Plant/machinery/ equipment</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Intangible assets</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Total</b>	Nominal	[...]	[...]	[...]	45 432
	Discounted	[...]	[...]	[...]	44 459

*Table 2: Breakdown of eligible investment costs (nominal and discounted in EUR millions)*

	<b>Nominal/Disco unted</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
<b>Land</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Buildings</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Plant/machinery/ equipment</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Intangible assets</b>	Nominal	[...]	[...]	[...]	[...]
	Discounted	[...]	[...]	[...]	[...]
<b>Total</b>	Nominal	[...]	[...]	[...]	145.3
	Discounted	[...]	[...]	[...]	142.2

- (16) The Hungarian authorities confirm that all assets included in the eligible expenditure will be new.
- (17) The Hungarian authorities confirm that the intangible assets are purchased under market conditions from third parties unrelated to WIG, are exclusively used in the establishment receiving the aid in Kazincbarcika and are amortisable.
- (18) As the investment concerns an initial investment in the form of a diversification of the output of an establishment into products previously not produced in the establishment, the Hungarian authorities provided information on whether the company has any existing assets – even if not included in the eligible costs – that would be used for the notified investment project. The Hungarian authorities confirmed that there are no

<sup>5</sup> The present values are calculated on the basis of a discounting rate of 1.19 %, applicable at the time of notification (see Communication from the Commission on the revision of the method for setting the reference and discount rates; OJ C 14, 19.1.2008, p.6.). Present values are discounted to the year 2017.

assets that would have been in use earlier and would be reused for this project. Despite of the fact that the company owned the land already before this investment project, as it was not in economic use, the Hungarian authorities suggest applying zero as the value of the reused land. Therefore, the eligible costs exceed by at least 200% the book value of the assets that are reused as registered in the fiscal year preceding the start of works.

#### **2.4. Legal basis**

- (19) The aid is granted as an individual aid measure on the basis of Act LXXXI of 1996 on Corporate Tax and Dividend Tax (*1996. évi LXXXI. törvény a társasági adóról és az osztalékadóról*) and Government Decree 165/2014 on Development Tax Allowance (*165/2014. (VII. 17.) Kormányrendelet a fejlesztési adókedvezményről*), which are part of an aid scheme<sup>6</sup> implemented under the General Block Exemption Regulation ("GBER")<sup>7</sup>.
- (20) The individual aid measure is subject to Commission approval.

#### **2.5. Aid amount**

- (21) The total amount of corporate tax reduction available for the aniline investment is HUF 14 983 million (EUR 47.9 million) in nominal value and HUF 13 951 million (EUR 44.6 million) in present value. According to the Hungarian authorities BorsodChem plans to utilize the tax reduction in five financial years after the accomplishment of the investment (between [...] and [...]). However, the actual utilisation would depend on the beneficiary's tax situation in these years.

#### **2.6. Aid intensity and cumulation with other investment aid, including for projects that form part of Single investment project**

- (22) The envisaged aid of HUF 13 951 million (EUR 44.6 million) for eligible expenditure of HUF 44 459 million (EUR 142 million) (both in present value) corresponds to an aid intensity of 31.38%. The Hungarian authorities declared that the financial support for the project will not be combined with any other financial support that would be disbursed for the same eligible costs from any other local, regional, national or European Union source.
- (23) The Hungarian authorities note that BorsodChem received aid for another three projects in its Kazincbarcika establishment, which were started within a three-year period before the start of work on the notified project. The individual aid to these three projects were granted under aid schemes which were put into effect under Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty<sup>8</sup> (General Block Exemption Regulation, hereinafter "GBER").

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<sup>6</sup> SA.39292 (2014/X)

<sup>7</sup> Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1), as amended by Regulation (EU) No 2017/1084 (OJ L 156, 20.06.2017, p.1.).

<sup>8</sup> OJ L 187, 26.6.2014, p. 1–78

- (24) For the purpose of calculating the maximum aid intensity in the meaning of point 20(m) of the RAG<sup>9</sup>, the Hungarian authorities considered BorsodChem's four investment projects in Kazincbarcika as a Single Investment Project ("SIP") in the meaning of point 20(t) of the same RAG<sup>10</sup>. The first three aid measures were not subject to individual notification obligation, as the amounts were below the notification threshold provided for in Article 6(2) of the GBER, even if they constituted a SIP.
- (25) The first three projects started in 2016 and 2017. Their eligible costs as well as the aid amounts granted for these projects were discounted to the date of granting the aid to the first project, i.e. 2016.
- (26) The below table summarises all the projects under the SIP:

<b>Projects</b>	<b>Start of works</b>	<b>Eligible costs at values of 2016 (in million EUR)<sup>11</sup></b>	<b>Aid granted at values of 2016 (in million EUR)</b>	<b>Aid scheme</b>
Project 1	2016	111.94	4.4	SA.39292; SA.39834
Project 2	2016	1.1	0.55	SA.39834
Project 3	2017	56.53	26.6	SA.39292
Aniline plant	2017	136		SA.39292
<b>Total</b>		<b>305.6</b>		

- (27) The Hungarian authorities applied the scaling down-mechanism of paragraph 20(c) of the RAG; as the SIP includes all four projects, it could receive a total aid of 72.4 million. Since the first three projects have already received EUR 31.6 million aid, the project for which aid has been notified, i.e. the aniline plant project may not receive more than EUR 40.84 million aid at 2016 values. The notified aid (EUR 47.9 million in nominal value, EUR 44.6 million at 2017 values) corresponds to EUR 40.65 million at 2016 values, thus it remains below the maximum allowable aid amount calculated at 2016 values.
- (28) On this basis, the Hungarian authorities confirm that the notified aid amount respects both the maximum allowable aid limit under the SIP rules as well as the maximum allowable aid limit that would apply if the project was not part of the SIP.

<sup>9</sup> "Maximum aid intensities" means the aid intensities in GGE for large undertakings as laid down in subsection 5.4 on the RAG and reflected in the relevant regional aid map.

<sup>10</sup> "Single investment project means" means any initial investment started by the same beneficiary (at group level) in a period of three year from the date of start of works on another aided investment in the same NUTS 3 region.

<sup>11</sup> The exchange rate applied for the SIP calculation is the one applicable at the time of the aid award for Project 1.

- (29) The Hungarian authorities confirm that neither the approved maximum aid nor the approved aid intensity will be exceeded if the amount of eligible expenditure deviates from the initially estimated and notified amount.

### **2.7. Own contribution**

- (30) The Hungarian authorities commit that the aid beneficiary will contribute from its own resources at least 25% to the financing of the investment.

### **2.8. Maintenance of the assisted activity**

- (31) The Hungarian authorities commit that the aid is awarded under the condition that the beneficiary will maintain the investment in the assisted region for a minimum period of five years after completion of the investment project.

### **2.9. Contribution to regional development (cohesion) objective**

- (32) The investment project is being carried out in Észak-Magyarország, which is a region eligible for regional aid under Art 107 (3) (a) of the Treaty. The Hungarian authorities explained that the investment will contribute to the regional development of Észak-Magyarország for the following reasons:

- The investment project will create at least 50 direct new jobs in addition to BorsodChem's existing workforce.
- Furthermore, the project will potentially create 295 indirect jobs of which 115 would be created in Észak-Magyarország due to an increased need for manpower in regard to the construction and maintenance of the facility and to the processing industry, mechanical engineering, technology, logistics, building industry and other further services, distributors and members of the supply chain.
- The beneficiary, which is the third biggest employer in the region, is active in attracting new workforce into the chemical industry, including organising professional courses and trainings for secondary school and university students which also develops the region in terms of retaining qualified workforce.
- BorsodChem pays attention to the employees' continuous training. In addition, the company fosters a strong and cooperative communication with the most important vocational and educational institutions in the industrial sector. The objective of this cooperation activity is to adjust relevant educational institutions' training structure to meet the continuous manpower demand of the Company with highly qualified fresh graduates.
- The Hungarian authorities submit that the beneficiary commits to keep its aniline production for at least five years after the completion of the investment project in Kazincbarcika, which is an indication of the long-term engagement of the company in the region.
- BorsodChem is active in implementing significant R&D projects in this region.
- BorsodChem participates in various types of social activities by supporting various institutions and activities around Kazincbarcika, which include

supporting local associations, encouraging healthy lifestyle, sponsoring education programs and cultural life and protecting the environment.

## **2.10. Appropriateness**

- (33) The Hungarian authorities note that the Commission already accepted in the Dell Poland decision<sup>12</sup> that State aid, among other measures, is an appropriate means to promote the regional development of regions where the GDP per capita and the wage levels are lower than the national average, and the unemployment rate is higher than the national average.
- (34) Kazincbarcika is located in Borsod-Abaúj-Zemplén County, in the Region of Észak-Magyarország. The GDP per capita in this County was 70.6% of the national average in 2015. The capital investment per capita of the Észak-Magyarország region was 70.73 % and the unemployment rate was almost 2 percentage points higher (6.3% vs. 4.4%) than the Hungarian average in 2016.
- (35) In addition, the Hungarian authorities argue that a tax reduction constitutes an appropriate aid instrument to achieve the desired objective.

## **2.11. Incentive effect**

- (36) BorsodChem submitted its formal application for aid on 21 December 2017, i.e. before 23 May 2018, date at which the works on the investment project started.

### ***2.11.1. Counterfactual scenario***

- (37) The Hungarian authorities invoke the Scenario 1 situation ("the investment would otherwise not be sufficiently profitable to take place") set out in paragraph 61 (a) of the RAG, arguing that the aid provides an incentive to the beneficiary to adopt a positive investment decision. The Hungarian authorities provided relevant and genuine internal company documents in order to present the beneficiary's internal decision-making process and to demonstrate that in the absence of the aid BorsodChem would not set up an aniline plant to supply its MDI production in Kazincbarcika but would continue to import aniline from WIG in China.
- (38) BorsodChem has been producing MDI in Kazincbarcika for many years. Due to a recent capacity extension project, the establishment will reach a maximum MDI capacity of [250-350] kt<sup>13</sup> per year in 2018. In order to feed the extended MDI production, approximately [200-260] kt of aniline per year would be needed<sup>14</sup>. The Czech subsidiary of BorsodChem, BC-MCHZ, which has been supplying to the Kazincbarcika MDI plant [100-150] kt of aniline per year, will continue to supply it with the same quantity. The additional [100-150] kt of aniline per year that would be needed for the extended MDI production, would have to be covered either from

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<sup>12</sup> OJ L 29, 2.2.2010, p. 8–33, paragraph 171.

<sup>13</sup> BorsodChem invests in the increase of its MDI capacity by [0-50] kt-s in order to reach a maximum capacity of [250-330] kt of MDI per year in 2018. The Hungarian authorities note that this investment did not receive support through any kind of State aid relevant funding and is implemented regardless of the outcome of the aniline investment decision.

<sup>14</sup> For the production of 1 kton MDI 0.745kt of aniline is required.

imports from WIG from China or by a new aniline production facility “in-house” in Kazincbarcika<sup>15</sup>.

- (39) WIG has currently in China an aniline production capacity of [1000-1400] ktons per year. In 2016, WIG started an aniline capacity expansion investment which will enable the production of [200-600] additional ktons of aniline per year in China. This investment is planned to be completed in 2018. Consequently, the total capacity of the Chinese aniline plants will be [1 200 – 1 700] ktons. The current maximum MDI capacity at the Chinese plants is [1 500 – 1 900] ktons per year. Taking into account the material need for the production of this MDI capacity – as described in footnote 14 – this would require a theoretical maximum aniline supply of [1200-1400] ktons. Consequently, WIG has sufficient capacity in China to supply also the extended MDI production of the Kazincbarcika establishment.
- (40) The Hungarian authorities emphasise that the objective of the notified investment project is not to free aniline production capacity in China, but to centralise and optimise the supply chain in the establishment in Kazincbarcika.
- (41) The main considerations in favour of setting up the aniline plant in Kazincbarcika are that it centralises and optimises the supply chain, saves time and costs in logistics and mitigates environmental risks (as aniline is highly toxic) stemming from the long shipment route (aniline is shipped to [EEA location] from China, and then transported from [EEA location] by train to Kazincbarcika).

#### Excluding the possibility of a Scenario 2 situation

- (42) As regards the choice of location the Hungarian authorities submitted that for BorsodChem the only feasible and economically reasonable location for the new aniline plant would be Kazincbarcika.
- (43) The Hungarian authorities argue that a similar investment project would not have been possible in any other location outside China (where no investment would be necessary, as the capacities are already available). A separate greenfield investment with the purpose of setting up a stand-alone aniline plant would not be rational, because one of the main objectives is to centralise the technologically connected parts of the supply chain / production process (i.e. the aniline to be produced by the new plant can be used instantly to produce MDI with negligible logistics costs or environmental risks).
- (44) The extension of an existing aniline Czech site<sup>16</sup> would not have been an option as it would not serve the purpose of simplification and centralisation of the supply chain of MDI production in Kazincbarcika<sup>17</sup>. BorsodChem did not consider increasing the capacities of its existing aniline plant situated in the Czech Republic also for certain technical reasons mainly due to limited availability of the infrastructure on the Czech site (in particular concerning the[...]). According to the Hungarian authorities, the

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<sup>15</sup> The company examined these two options, considering that the Kazincbarcika establishment would no longer buy aniline supplies from other suppliers from plants in the EEA. The quantities bought from other suppliers were very limited.

<sup>16</sup> The Czech plant is the only existing aniline plant of BorsodChem in the EEA.

<sup>17</sup> The company considered to keep the existing capacities of the Czech site and intended to continue supplying the plant in Kazincbarcika with the [100-150] ktons of aniline per year from its Czech site. The investment decision was related only to the additional aniline need of [100-150] ktons. If this additional aniline was also produced in the Czech plant and shipped to Kazincbarcika, this would not lead to simplification and centralisation of the supply chain in the Kazincbarcika plant.

only options for the beneficiary is to carry out the project in Hungary (where the MDI production is) or not to carry it out at all and to continue importing aniline from WIG. As stated above, WIG has already sufficient aniline production capacities in China, and no additional investment into aniline production would have been necessary there.

#### Calculations presented to the Board

- (45) The financial team of BorsodChem prepared relevant financial analyses (expected cash flow and expected return on the investment), which were presented as a basis for the approval of the investment project to the BorsodChem Board.
- (46) In order to determine the profitability of the investment project (Net Present Value (NPV) and Internal Rate of Return (IRR)), the beneficiary's finance team compared the costs of producing and importing aniline from China to Kazincbarcika to possible production and investment costs in Kazincbarcika. This was necessary, because the aniline market price for the profitability calculations could not be determined, as aniline is normally not sold on and bought from the market (minor quantities are traded on the spot market).
- (47) It was assumed that the same amount of aniline supply ([100-150] ktons per year) should be reached regardless of from which plant this would be supplied.
- (48) The company considered the [...] unit production cost as the "base cost" and calculated the additional costs and savings that would occur if the production were to take place in Kazincbarcika. To estimate the production costs at the Kazincbarcika establishment the production costs of the [...] were applied as a benchmark<sup>18</sup>.
- (49) Additional production costs compared to those in the WIG plants in China: The production cost [...] in China would be lower than in Hungary, mostly due to lower direct energy and cheaper raw materials, (in particular cheaper [...], which [...] important raw material for the production of aniline). In addition, "operating costs of the new plant"<sup>19</sup> [...] further increase the production cost level in Hungary.
- (50) "Savings" on the logistic costs if aniline is produced in Kazincbarcika compared to those if aniline is produced and imported from the WIG plants in China: BorsodChem calculated the savings on logistic costs inside and outside Europe (aniline is shipped to [EEA location] from China, and then transported from [EEA location] by train to Kazincbarcika) as well as the savings on customs duties that would be realised if the investment project is carried out in Kazincbarcika. These savings would exceed the higher Hungarian production costs (including direct and indirect costs) resulting into a positive operating free cash flow.
- (51) However, this positive operating free cash flow over the reference period of 18 years (3 years construction and 15 years of operations, as the useful life of the core assets is 15 years) is insufficient to cover the investment costs of the company.
- (52) Therefore, the financial analysis submitted to the BorsodChem Board concludes that the investment would lead to a negative NPV ([-30 - -10] million EUR) and an IRR

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<sup>18</sup> Even if the production technology in BC-MCHZ is different from the one to be applied in Kazincbarcika the cost structure of the two plants is comparable. [...]

<sup>19</sup> Only the additional costs of the new plant in Kazincbarcika are taken into account, as other general operating costs, which are the same at the two plants are considered as "base cost" that are not included in the calculations. As described in recital (48) of this decision, the calculation is based on the differences in costs.

([3-7]%) below the company's weighted average cost of capital (WACC, [6-9] %) if the investment project is not aided. With a potential aid of EUR 47.9 million the investment could reach an IRR of [6-12]%, and an NPV of EUR [EUR 5-20] million. On this basis the Board approved the investment project on 19 December 2017.

### ***2.11.2. Decision making process***

- (53) BorsodChem's Board (hereinafter Board) is responsible for the interim and final decision on the investment. In general, BorsodChem's ultimate parent company would be entitled to approve decisions on investments.
- (54) However, the BorsodChem's Board consists of 9 members, five of whom are the representatives of WIG. Moreover, the representative of the direct and only shareholder of BorsodChem, the Mount Tai Chemical Holding S.á.r.l. ("sole shareholder") is both a member of BorsodChem's Board as well as of the Board of Directors and the Executive Board of WIG. Therefore, WIG is directly represented on BorsodChem's Board at the highest level. If the representative of the sole shareholder approves the decision of the Board, the decision is automatically considered approved by the sole shareholder.
- (55) Therefore, the BorsodChem Board is entitled to take majority decisions on its own without any additional involvement of the ultimate parent company, or any other parent companies.
- (56) In November 2017, the financial team of BorsodChem presented to its Board the profitability calculations of the envisaged investment project (including the possible State aid subject to Commission approval) and the possible alternative of buying aniline from WIG plants in China. The BorsodChem Board required a higher level of comfort about the possibility of receiving the tax reduction. Therefore, the BorsodChem management engaged in discussions with the Hungarian authorities. Based on the calculations, which demonstrated that a potential aid would make the investment project viable, and considering that State aid could be possible, BorsodChem Board instructed the management to submit the official aid application to the Hungarian authorities and gave its greenlight on 19 December 2017 to start the investment.

### **2.12. Additional benefits of the project to the environment**

- (57) In case the investment project is not carried out and the beneficiary continues importing from China, aniline first has to be shipped to Europe (port of [EEA location]) in containers especially designed for chemicals. After the disembarkation in the European port, the raw material has to be trans-shipped to storage containers and from these containers it has to be trans-shipped to trains. Aniline is transported to Hungary by freight train through Europe, both in case of transporting from [EEA location] and the Czech plant. The transport and the trans-shipment of aniline causes high environmental danger. Therefore, the Hungarian authorities argue that the implementation of the project would reduce environmental risks associated with transportation.

### **2.13. Transparency requirements**

- (58) The Hungarian authorities undertook to publish on a central website, or on a single website retrieving information from several websites at least the following information on the notified measure: aid granting decision (or a link to it), granting authority,

individual beneficiary, form and amount of aid, date of granting, and the region in which the beneficiary is located. The information will be kept for at least 10 years and must be available to the general public without restrictions.

### **3. ASSESSMENT OF THE AID MEASURE AND COMPATIBILITY**

#### **3.1. Existence of aid**

- (59) The financial support will be granted by the Hungarian authorities in the form of a tax advantage. The support is thus given by a Member State and through State resources within the meaning of Article 107(1) TFEU.
- (60) As the aid is granted to a single subsidiary of a group of companies, BorsodChem that is part of the WIG, the measure is selective.
- (61) The financial support given to BorsodChem will relieve it from costs which it normally would have had to bear itself, and therefore the company benefits from an economic advantage over its competitors.
- (62) The measure is likely to affect trade between Member States as it substitutes supplies, amongst others, from other European producers located outside Hungary. Moreover, it may have the indirect consequence to reinforce BorsodChem's position in the EEA MDI market. Therefore, trade between Member States may be affected and may threaten to distort competition in the internal market.
- (63) Consequently, the Commission considers that the measure constitutes State aid within the meaning of Article 107(1) of the TFEU.

#### **3.2. Legality of the aid measure**

- (64) If the regional investment aid amount to be granted exceeds the notification threshold laid down in Article 4 (1) (a) of the GBER, the aid is not covered by the exemption, and has thus to be notified individually. In the Észak-Magyarország region the applicable threshold is EUR 37.5 million; therefore, the planned aid measure cannot be exempted from notification.
- (65) By notifying the aid the Hungarian authorities have respected their obligations under Article 108 (3) TFEU and Article 4 (1)(a) of the GBER.
- (66) The aid will be granted only after its approval by the Commission.

#### **3.3. Assessment of the aid measure**

- (67) Having established that the notified measure constitutes State aid within the meaning of Article 107(1) TFEU and that it is subject to Commission approval, it is necessary to examine whether the investment project is eligible for aid and whether the measure can be considered compatible with the internal market.
- (68) As the objective of the measure is to promote regional development in an area designated in accordance with Article 107(3)(a) TFEU, and the aid is granted in the period between 1 July 2014 and 31 December 2020, the legal basis for its assessment are the Regional Aid Guidelines ("RAG")<sup>20</sup>.

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<sup>20</sup> Guidelines on regional State aid for 2014-2020, OJ C , 23.07.2013, p.1.

- (69) In line with the provisions of the RAG, the Commission will first establish whether the notified investment project can be considered eligible for regional aid. The Commission will then verify the compatibility of the notified aid in application of the Common Assessment Principles laid down in the RAG.

### ***3.3.1. Eligibility of the notified investment project***

- (70) The project to be supported is located in Kazincbarcika in the Észak-Magyarország region, an area eligible for regional aid pursuant to Article 107(3)(a) TFEU ("a-area") in accordance with the Hungarian Regional Aid Map<sup>21</sup>. Pursuant to paragraph 34 of the RAG, in a-areas initial investments by large undertakings may benefit from regional investment aid.
- (71) The Hungarian authorities intend to grant aid to an investment in BorsodChem's existing establishment in Kazincbarcika aimed at increasing the vertical integration through the diversification of the range of its products to include aniline (and also two raw materials for aniline: WNA and MNB), which serves as a necessary raw material for the production of the company's key product, MDI.
- (72) Pursuant to paragraph 20(h) of RAG an initial investment means an investment in tangible and intangible assets related to (i) the setting-up of a new establishment, (ii) the extension of the capacity of an existing establishment, (iii) the diversification of the output of an establishment into products not previously produced in the establishment, or (iv) a fundamental change in the overall production process of an existing establishment.<sup>22</sup> As the project (vertical integration) involves the diversification of the output of an establishment into products not previously produced in the establishment, it represents an initial investment within the meaning of paragraph 20(h) of RAG. According to paragraph 20(e) of the RAG, and within the limits defined in this paragraph, the costs for new assets for BorsodChem are in principle eligible for regional aid.<sup>23</sup>
- (73) In conclusion, the Commission considers that the notified project is eligible for regional aid, provided that all compatibility criteria of the RAG are met.

### ***3.3.2. Compatibility of the aid measure***

- (74) The Commission communication on state aid modernisation of 8 May 2012 called for the identification and definition of common principles applicable to the assessment of the compatibility of all aid measures. In their section 3, the RAG define and operationalise these "Common Assessment Principles" (CAP) for the purposes of regional aid.
- (75) The assessment under the CAP of the RAG takes place in three steps:

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<sup>21</sup> See Commission decisions in case SA.37718 - Regional aid map for Hungary (2014-2020), OJ C 172, 06.06.2014, and in case SA.46346 Amendment to the regional aid map for Hungary (2014-2020) for the period 2017-2020, OJ C 4, 06.01.2017.

<sup>22</sup> According to paragraph 20(h)(b) of the RAG, an initial investment can also be "an acquisition of assets directly linked to an establishment provided the establishment has closed or would have closed if it had not been purchased and is bought by an investor unrelated to the seller. The sole acquisition of shares of an undertaking does not qualify as an initial investment".

<sup>23</sup> Pursuant to paragraph 20(e) of the RAG eligible costs means, for the purpose of investment aid, tangible and intangible assets related to an initial investment, or wage costs.

- in a first step, it is checked whether minimum requirements regarding credibility of counterfactual scenario, appropriateness, incentive effect, and proportionality of the aid and its contribution to regional development are met (see RAG, sections 3.2-3.6);
- in the second step, it is verified, that the aid does not lead to manifest negative effects (blacklist) that would prohibit the granting of aid, e.g. aid exceeding the allowable maximum aid intensity ceiling, creating overcapacity in a sector in absolute decline, attracting an investment that would have gone without the aid to another region with a similar or worse off socio-economic situation, or causal for the closure of activities elsewhere in the EEA (see RAG, section 3.7.2);
- in the third step, for not blacklisted aid projects meeting the minimum requirements, a balancing is carried out to ensure that the contribution to regional development outweighs the negative effects on trade and competition (see RAG, sections 3.7.1 and 3.7.4).

### 3.3.3. *Minimum requirements*

#### 3.3.3.1. *Contribution to regional objective and need for State intervention*

- (76) The RAG require the Member State to prove in concrete terms the real and sustained contribution of the aided investment to the regional development of the target region. To help Member States in this task, Section 3.2.2. of the RAG lists a number of indicators that Member States may use in order to demonstrate the regional contribution of individual investment aid notified to the Commission. To prove the real and sustained contribution, the Member State also has to show that the viability of the project is demonstrated by a financial contribution of the aid beneficiary of at least 25% of the eligible costs<sup>24</sup>, provided through its own resources or by external financing, in a form that is free of any public financial support. In addition, the investment (the aided assets) has to be maintained in the area concerned for a minimum period of five years (three years for SMEs) after completion of the investment<sup>25</sup>.
- (77) The Észak-Magyarország region is eligible for regional aid pursuant to Article 107(3)(a) of the TFEU. The Commission takes note of the investment's positive regional effects, as presented by the Hungarian authorities (see recital (32) of this decision) and considers that in particular the direct and indirect job creation effects, the retention of qualified workforce in the region, the knowledge transfer into the region represent a significant contribution to the development of the region and to the achievement of the EU cohesion objective.
- (78) The Commission notes that the beneficiary will contribute at least 25% of the eligible costs, and commits to keep the investment for 5 years after completion of the project in the area concerned (see recitals (30) and (31) of this decision).

#### 3.3.3.2. *Appropriateness of regional aid/the aid instrument*

- (79) According to paragraph 50 of the RAG, the notified aid measure must be an appropriate policy instrument to address the policy objective concerned. The RAG

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<sup>24</sup> See paragraph 38 of the RAG

<sup>25</sup> See paragraph 36 of the RAG

underlines that an aid measure will not be considered compatible if other less distortive policy instruments or other less distortive types of aid instruments are available. Section 3.4 of the RAG therefore introduces a double appropriateness test. Under the first appropriateness test, Member States in particular have to identify the bottlenecks to regional development and the specific handicaps of firms operating in the target region, and to clarify to what extent bottlenecks to regional development could also successfully be targeted by non-aid measures. Under the second appropriateness test, the Member State has to indicate why – in view of the individual merits of the case - the chosen form of regional investment aid is the best instrument to influence the investment or location decision.

- (80) The Hungarian authorities based the explanation (see section 2.10 of this decision) for appropriateness of the aid instrument on the economic situation of the situation in the Észak-Magyarország region and provided evidence to prove that the region is disadvantaged in comparison with the average of other regions in Hungary.
- (81) The Commission notes that the neediness of the Észak-Magyarország region in general and of Borsod-Abaúj-Zemplén County in particular is confirmed by its status as a region eligible for regional aid in accordance with Article 107(3) (a) TFEU.
- (82) The Hungarian authorities based their explanation for appropriateness of aid on the economic situation in the Észak-Magyarország region and provided evidence to prove that the region is disadvantaged in comparison with the average of other regions in Hungary. The Hungarian authorities point out that in 2015 Borsod-Abaúj-Zemplén County's GDP per capita was 70,73 % of the national average, and that the unemployment rate of the Észak-Magyarország region was 2 percentage points higher than the Hungarian average in 2016. In this kind of economic situation, state aid has already been acknowledged by the Commission's case practice as an appropriate means to address the economic shortcomings (e.g. in the *Hamburger Rieger GmbH* decision<sup>26</sup> and in the *MOL Petrolkémia* decision<sup>27</sup> under RAG, as well as in the *Dell Poland* decision and *Porsche* decision<sup>28</sup> under comparable provisions of the Communication from the European Commission on the criteria for an in-depth assessment of regional aid to large investment projects<sup>29</sup>).
- (83) Therefore, the Commission accepts that state aid, and regional investment aid in particular, is an appropriate form of support to achieve the cohesion objective for Borsod-Abaúj-Zemplén County, respectively Észak-Magyarország.
- (84) The aid is granted in the form of a corporate tax reduction. The Commission considers that - in accordance with its previous case practice (e.g. in the *Mondi* decision<sup>30</sup>) - a corporate tax reduction constitutes an appropriate aid instrument to render the project sufficiently profitable.

#### 3.3.3.3. *Incentive effect*

- (85) According to section 3.5 of the RAG, regional aid can only be found compatible with the internal market if it has an incentive effect. An incentive effect is present when the

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<sup>26</sup> OJ C 323, 02.09.2016, p.4-5

<sup>27</sup> OJ C 80, 02.03.2018, p 3.

<sup>28</sup> OJ L 287, 31.10.2015, p. 68–86

<sup>29</sup> OJ C 223, 16.09.2009, p.3-10

<sup>30</sup> OJ C 400, 16.11.2017

aid changes the behaviour of an undertaking in a way that it engages in additional activity contributing to the development of an area which it would not have engaged in without the aid or would only have engaged in such activity in a restricted or different manner or in another location. The aid must not subsidise the costs of an activity that an undertaking would have incurred in any event and must not compensate for the normal business risk of an economic activity.

- (86) Paragraphs 64-65 of the RAG set out the formal incentive effect requirements, i.e. works on an individual investment can start only after submitting the application form for aid. As the beneficiary applied for aid on 21 December 2017, before start of works on the investment on 23 May 2018, this condition has been respected.
- (87) As there are many valid reasons for a company to locate its investment in a certain region, even without any aid being granted, as set out in section 3.5.2 of the RAG the Commission has to verify in detail that the aid is necessary in the sense that it has a substantive incentive effect on the investment decision. In this context the Member State is required to provide not only information concerning the aided project but also a comprehensive description of the counterfactual scenario in which no aid would be granted to the beneficiary. The Commission has to verify that these scenarios are realistic and credible. According to paragraph 68 of the RAG, a counterfactual scenario is credible if it is genuine and relates to the decision-making prevalent at the time of the investment decision.
- (88) The RAG<sup>31</sup> require the Member State to demonstrate to the Commission the existence of the incentive effect of the aid and to provide clear evidence that the aid effectively had an impact on the investment choice or the location choice. It thus places the burden of proof regarding the existence of an incentive effect on the Member State.
- (89) Paragraph 61 of the RAG stipulates that the (substantive) incentive effect can be proven in two possible scenarios: in the absence of aid the investment would not be sufficiently profitable (scenario 1); in the absence of aid the investment would take place in another location (scenario 2).
- (90) Paragraph 70 of the RAG indicates that for scenario 1 – which is invoked by Hungary in the present case - the Member State could provide the required proof of the incentive effect of the aid by providing contemporary company documents that show that the investment would not be sufficiently profitable without the aid. For that purpose, the Member State is invited to rely on official board documents, risk assessments, financial reports, internal business plans, expert opinions, other studies and documents that elaborate on various investment scenarios<sup>32</sup>.
- (91) To verify the viability in a scenario 1 context, the level of profitability can be evaluated according to paragraph 73 of the RAG by reference to methodologies which are standard practice in the particular industry concerned, and which may include methods to evaluate the net present value of the project (NPV), the internal rate of return (IRR) or the average return on capital employed (ROCE).
- (92) The Commission notes that the Hungarian authorities submitted comprehensive, contemporary and genuine evidence documenting the decision-making process of the beneficiary concerning the investment decision. The submitted documents confirm

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<sup>31</sup> See paragraph 69.

<sup>32</sup> See in this respect paragraph 72 of the RAG.

that for the investment decision it is the scenario 1 situation which applies, since no other location was considered by the beneficiary (outside China, where no investment to supply aniline would have been necessary, as the necessary capacity is available). The Commission assessed the justification provided by the Hungarian authorities that no other location was considered. According to them:

- the main objective of the investment project is to simplify and centralise the supply chain of MDI production at the Kazincbarcika establishment;
- a separate greenfield investment with the purpose of setting up a stand-alone aniline plant would not serve the above purpose;
- the investment project should lead to reduction of logistic costs, as well as of environmental risks associated with transportation. Thus, it would only be rational to set up an aniline plant in the vicinity of Kazincbarcika. The only existing aniline plant of BorsodChem in the EEA is the one in Ostrava in the Czech Republic. The beneficiary did not consider Ostrava as option for the location of the plant as there are technical reasons hindering the extension of the BC-MCHZ plant and economically it would not be justified as it would not serve the purpose of simplification and centralisation of the supply chain of MDI production in Kazincbarcika.

- (93) In view of the above the Commission considers that a Scenario 2 situation of the RAG indeed does not apply to the decision-making of the beneficiary.
- (94) The Hungarian authorities presented a counterfactual scenario, as scenario 1, according to which the project would not be carried out without the aid, as it would not be profitable and the beneficiary would thus import aniline from the production plants of WIG in China.
- (95) The Hungarian authorities provided details and explanation to the Commission concerning the financial analyses on the expected cash flow and expected return on the investment, which served as a basis for the decision-making of the BorsodChem Board.
- (96) As aniline is not normally sold on and bought from the market, it would be difficult and not realistic for the company to use the market price of aniline for the profitability calculations. Therefore, in order to determine the profitability of the investment project (NPV and IRR), the beneficiary's finance team compared the costs of aniline production in the WIG's Chinese plants and of its import to Kazincbarcika, with the investment and production costs of aniline production in Kazincbarcika.
- (97) The following elements were considered in the calculations: investment costs and the overall operating cost differences, such as production cost differences, logistic effects/costs and "operating cost of the new plant in Kazincbarcika".
- (98) As described in recitals (46) - (51) of this decision, the calculations demonstrated the following: aniline production cost in China would be lower than in Hungary, mostly due to lower direct energy costs ([...] production in China vs. [...] production in Hungary) and cheaper raw materials (in particular [...], which corresponds to about [...] % of the raw material costs). In the case scenario where aniline is produced in Hungary, the savings on logistic costs inside and outside Europe<sup>33</sup> as well as the

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<sup>33</sup> Aniline is shipped to [EEA location] from China, and then transported from [EEA location] by train to Kazincbarcika.

savings on customs duty exceed the higher Hungarian production costs<sup>34</sup> (even including the additional “operating costs of the new plant in Kazincbarcika”), but are insufficient to also offset the investment costs over the reference period of 18 years.

- (99) The Commission considers the calculation of the 18 years' reference period (3 years construction and 15 years of operations) presented by Hungary as acceptable, as it is not underestimating the expected free cash flow from the production in Kazincbarcika (as mentioned above the savings on the foregone transport costs and customs duties are higher than the additional production costs in Hungary, which means that the longer the reference period, the higher the possibility to cover the investment costs). The industry (including WIG and BorsodChem) determines a 10-15-year useful life for the majority of the core assets (machinery and equipment) that are connected with the investment in general. Longer periods cannot be determined, as the majority of the machines in question require significant refurbishment investments after 15 years. In addition, the Hungarian authorities provided benchmark examples from major players of the industry, which show that the average useful life of machinery and equipment vary between 6 and 15 years.
- (100) The financial analysis submitted to the BorsodChem Board concludes that the investment would lead to a negative NPV ([-30 - -10] million EUR) and an IRR (([3-7]%) below the WACC ([6-9]%) if the investment project is not aided.
- (101) The Hungarian authorities submitted information to the Commission on the way the beneficiary determines its WACC by detailing its cost of equity and debt. On the basis of this information the Commission considers that the WACC applied by the beneficiary is reasonable.
- (102) With a potential aid of EUR 47.9 million the investment could reach an IRR of ([6-10]%, and an NPV of EUR ([5-20] million. On this basis the Board approved the investment project on ([...] December 2017.
- (103) The Commission considers that the calculations underlying parameters submitted by Hungary are realistic.
- (104) Furthermore, the investment project will have as a consequence that the aniline imported so far to Hungary will now remain with the WIG subsidiaries in China. Therefore, in order to establish the existence of the aid measure's incentive effect the Commission also examined the impact of the measure on the operations of the Group in China.
- (105) The Hungarian authorities explained that the maximum quantity that has been imported so far from China has been [50-80] ktons. As described in recital (38) of this decision, the theoretical maximum aniline need - to cover the maximum MDI production in the Kazincbarcika plant - from WIG's Chinese plants would reach [100-150] ktons. The total capacity of the Chinese aniline plants will be [1200-1700] kt. If the investment is carried out in Hungary, the lost exports (to Kazincbarcika) may indeed lead to a lower capacity utilisation in China. However, as the maintenance and operation of a piece of equipment is nearly the same when the equipment is running at 100% or only at a lower level, the change in the plant's headcount and operating costs would be negligible. The Hungarian authorities explained that this type of chemical plants do not operate as typical production lines where the work hours and the items

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<sup>34</sup> Even if the costs for refurbishment and unexpected maintenance, indirect energy costs, etc. Are included in the calculations.

produced are proportional to each other and where the output can be precisely planned. The few applicable technologies for the construction and operation of an aniline production plant can only be reasonably implemented with a certain minimum capacity, therefore the plants normally run at lower utilisation rates.

- (106) The maximum MDI capacity at WIG's Chinese plants corresponds to a maximum theoretical aniline need of the Chinese plants of [1200-1400]ktons. Consequently, in China there will be an extra aniline capacity of [100-300] ktons aniline, which is [50-200] ktons more than the potential maximum aniline need of the Kazincbarcika plant ([100-150]ktons).
- (107) The planned capacity increase in Hungary is marginal in size compared to the capacities in China (The [50-80] ktons reduction is only about [2-5]% and the [100-150] ktons is less than [5-9]% of total future capacity in China). Based on historical data of WIG, MDI plants usually do not run at maximum or at high utilisation rates<sup>35</sup>; therefore, the aniline plants are also not operated at full capacity.
- (108) As MDI is produced in a [...] process, it needs to be operated at a [...] flow, even if occasionally at [...]. However, the aniline production process is a one-line process and can therefore be stopped at any time. This provides the technological/operating flexibility to lower the utilisation rate of aniline production, if necessary.
- (109) [...].
- (110) The Commission also examined whether WIG plans to further increase MDI capacities in China for which WIG could allocate the aniline capacity "freed up" from the Hungarian operations. The beneficiary and the Hungarian authorities explained that they are not aware of any further expansion plans than those, which have already been reported to the Commission (additional [...] ktons of MDI). However, in order to feed that additional MDI plant the freed-up capacity would be way too small to cover the aniline need and another [...] aniline investment would be necessary.
- (111) Concerning the question whether WIG is planning to expand onto the US markets, the beneficiary mentioned that WIG might consider a potential expansion, [...].
- (112) As there are no significant economic implications and as there are no technological difficulties due to a lower utilisation rate of the aniline plants of WIG in China, the Commission considers that the potential lower utilisation of the aniline plants is credible. In addition, the freed up aniline capacities will not result into advantages at the level of WIG, as those are not necessary for [...] production in China and will not be sold on the market.
- (113) In view of the above, the Commission considers the presented counterfactual realistic and plausible.
- (114) Hence, the Commission considers - based on genuine, contemporary and realistic evidence submitted by the Hungarian authorities - that the aid effectively has an impact on the investment decision. By compensating for the insufficient viability of the investment project, the aid could trigger the investment project to be carried out in Kazincbarcika.

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<sup>35</sup> This trend is also confirmed by the study of [...], which forecasts for the next 5 years for MDI plants globally an average utilisation rate of [65-90]%.

- (115) In view of the above, the Commission considers that the aid meets the formal incentive requirements and has real (substantive) incentive effect.

#### *3.3.3.4. Proportionality of the aid amount*

- (116) According to section 3.6 of the RAG, the aid amount must be limited to the minimum needed to induce the additional investment or activity in the area concerned. For scenario 1 situations, according to paragraph 104 of the RAG, the Member State must demonstrate the proportionality by using the method set out in paragraph 79 of the RAG and on the basis of documentation such as that referred to in paragraph 72 of the RAG.
- (117) As a general rule, notified individual aid will be considered to be limited to the minimum, if the aid amount corresponds to the net extra costs ("net-extra cost" approach) of implementing the investment in the area concerned, compared to the counterfactual in the absence of aid. Pursuant to paragraph 79 of the RAG, in scenario 1 situations (investment decisions) the aid amount should not exceed the minimum necessary to render the project sufficiently profitable. The aid should for example not increase the beneficiary's IRR beyond the normal rates of return applied by the beneficiary in other investment projects of a similar kind or should not increase the beneficiary's IRR beyond the cost of capital of the company as a whole or beyond the rates of return commonly observed in the industry concerned.
- (118) Based on the profitability calculation presented to the BorsodChem Board, the aid would render the investment profitable, as it would lead to a difference of [0.5-1.2] percentage points between the WACC and the IRR.
- (119) In order to demonstrate that this is a sufficiently profitable normal rate of return, the Hungarian authorities did not submit industry benchmarks concerning the rates of return of similar projects, because IRR calculations of an individual investment are not part of financial statements, and based on business confidentiality, the companies do not make this data public.
- (120) Concerning the normal rates of return applied by WIG/BorsodChem, the Hungarian authorities and the beneficiary explained that there are no internal guidelines on the minimum acceptable IRR within WIG (including for BorsodChem). Based on the [...], WIG (including BorsodChem) decides on the acceptable IRR and the acceptable difference between WACC and IRR on an individual basis for each investment.
- (121) The Hungarian authorities presented eight similar investments of WIG and of BorsodChem carried out in the last 10 years. These examples demonstrated that the difference between WACC and IRR was significantly higher in the previous years' investments. There was only one investment where a lower difference of [0.4-1.2] percentage points was accepted, as that investment was considered to be innovative. Innovative investments are generally accepted with lower differences of WACC and IRR, as given the uncertainty in the potential sales volume, the revenue forecast is very conservative. All other investments were expected to realise a significantly higher difference between the WACC and the IRR (between [7-12] and [20-30] percentage points).
- (122) The Commission notes that the costs – even if those are marginal as argued by the beneficiary – resulting from the reduced capacity utilisation in the Chinese plants of WIG are not taken into account in the profitability calculations. Therefore, the [0.5-

1.2] percentage point difference between the WACC and IRR should also offset these costs.

- (123) As the difference between the WACC and the IRR of this project is significantly lower than those applied for similar projects of the beneficiary and as the costs associated to lower utilisation in the Chinese plants of WIG is not factored in into the profitability calculations, the Commission considers that the aid is kept to the minimum necessary to render the project sufficiently profitable. Thus, the Commission considers that the proportionality of the aid is demonstrated.

*3.3.3.5. Conclusion as to the respect of the minimum requirements*

- (124) The assessment in recitals (76) to (123) of this decision allows concluding that all minimum requirements laid down in sections 3.2 to 3.6 of the RAG are met.

**3.3.4. Manifest negative effects on competition and trade**

- (125) Section 3.7.2 of the RAG explicitly list a series of situations where the negative effects on trade and/or competition manifestly outweigh any positive effects, and where regional aid is prohibited.

*3.3.4.1. Manifest negative effect: The (adjusted) aid intensity ceiling is exceeded*

- (126) A manifest negative effect would exist according to paragraph 119 of the RAG where the proposed aid amount exceeds, compared to the eligible (standardised) investment expenditure<sup>36</sup>, the maximum (adjusted) aid intensity ceiling that applies for a project of the given size, taking into account the required "scaling down"<sup>37</sup>.
- (127) As the notified large investment project is also part of a SIP, there are two limits for the maximum allowable aid. First, it must be ensured that the aid does not exceed the scaled down intensity for the individual large investment project. Second, the aid for the entire SIP calculated on the basis of the total eligible costs of all projects may not exceed the maximum allowable aid taking into account the maximum aid intensity in the region and the scaling down mechanism.
- (128) The applicable regional aid ceiling in the Észak-Magyarország region area is 50%. In view of the expected higher distortion of competition and trade, the maximum aid intensity for large investment projects must be scaled down using the mechanism as per paragraph 20(c) of the RAG. The planned total eligible expenditure in present value (of 2017) for the notified investment project is HUF 44 459 million (EUR 142 million). In application of the scaling down mechanism of paragraph 20(c), this leads to a maximum allowable aid intensity of 31.42 % GGE (Gross Grant Equivalent) for the individual project.
- (129) The envisaged aid of HUF 13 951 million (EUR 44.6 million) in present values (of 2017) for eligible expenditure of HUF 44 459 million (EUR 142 million) (both in present value) corresponds to an aid intensity of 31.38%. Therefore, the maximum aid intensity of the notified aid complies with the limit set for the individual large investment project.

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<sup>36</sup> The standardised eligible expenditure for investment projects by large firms is described in detail in section 3.6.1.1 and 3.6.1.2 of the RAG.

<sup>37</sup> See paragraph 86 and 20(c) of the RAG

- (130) As a next step the maximum allowable aid under the SIP needs to be calculated. The four investment projects are considered a SIP in the meaning of point 20(t) of the RAG (see recitals (23) - (28) of this decision).
- (131) The Commission notes that the first three aid measures supporting the first three projects were not subject to individual notification obligation, as the aid amounts were below the notification threshold provided for in Article 6(2) of the GBER, even if they constituted a SIP. The earlier projects constituting the SIP started in 2016 and 2017. In order to determine the maximum aid intensity under the SIP, the values of the eligible costs and of the aid to all the projects (including the one for which the aid is under assessment) have to be time-consistent and comparable. Therefore, the eligible costs as well as the aid amounts have to be discounted to the date when the aid for the first project was granted, i.e. to 2016. The Commission accepted this approach in earlier decisions<sup>38</sup>.
- (132) Applying the scaling down-mechanism of paragraph 20(c) of the RAG, the SIP including the four projects could receive a total aid amount of 72.4 million at 2016 values. The Commission notes that the first three projects have already received EUR 31.6 million aid at 2016 values. Therefore, the project for which aid has now been notified, i.e. the aniline plant may not receive more than EUR 40.84 million aid at 2016 values. The notified aid (EUR 47.9 million in nominal value, EUR 44.6 million at 2017 values) corresponds to EUR 40.65 million at 2016 values, thus it remains below the maximum allowable aid amount at 2016 values. Therefore, the notified aid complies with the limit set for the SIP taking into account the maximum aid intensity in the region and the scaling down mechanism.
- (133) The Commission concludes that the maximum aid intensity of the notified aid to be granted by the Hungarian authorities for BorsodChem's investment into the aniline plant has been appropriately determined, ensuring full compliance with the adjusted aid amount rule of point 20(c) of the RAG. The notified aid intensity of 31.38% does not exceed the regional aid ceiling as corrected by the scaling-down mechanism both due to the individual large investment project nature and to the SIP.
- (134) Sections 3.6.1.1 and 3.6.1.2 of the RAG explain which investment costs can be taken into account as eligible costs. In the present case, section 3.6.1.1 applies as the eligible costs for the proposed investment aid are calculated on the basis of investment costs. The acquired assets will be new, no leasing costs are taken into account. The intangible assets are less than 50% of the total eligible costs. The investment constitutes an initial investment in the form of a diversification of the output of an establishment into products previously not produced in the establishment. For the eligible costs relating to the "diversification of an existing establishment" specific conditions apply. In line with paragraph 97 of the RAG, the eligible costs must exceed by at least 200% the book value of the assets that are reused as registered in the fiscal year preceding the start of works. Since there are no assets reused, and the existing land has not been in economic use before, the book value of the already existing assets before the start of works amounts to zero. Thus, the eligible costs of the notified project exceed by far the threshold set in paragraph 97 of the RAG.
- (135) As the aid intensity does not exceed the maximum allowable and is applied to eligible expenditure established in line with the relevant rules, and as the Hungarian authorities

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<sup>38</sup> See Commission decision in case SA.38981 (2014/N) – LIP - Hungary - Aid to Nitrogénművek, OJ C 153, 8.5.2015.

indicated that the notified aid will not be combined with any other aid, the basic requirement identified in paragraphs 107 and 118 of the RAG - that the maximum aid intensities are not exceeded - is met; thus, a level playing field is ensured, as required by paragraph 81 of the RAG. Therefore, also the double cap condition, laid down in paragraph 83 of the RAG, resulting from the combination of the net extra cost approach ("aid limited to the minimum necessary"<sup>39</sup>) with the allowable ceilings is respected.

*3.3.4.2. Manifest negative effect: The aid creates overcapacity in a market in absolute decline*

- (136) According to paragraph 120 of the RAG, a manifest negative effect arises also where the investment aid creates capacity in a market in absolute decline, as such aid is likely to crowd out competitors, or to prevent low cost firms from entering, and risks weakening incentives for competitors to innovate. This results in inefficient market structures which are also harmful to consumers in the long run.
- (137) To verify whether the investment addresses a market in absolute decline the relevant product and geographic market need to be defined. A market is in absolute decline<sup>40</sup> if it shows over an appropriate reference period a negative growth rate. The average growth rate of the market concerned (apparent consumption data or sales data) is normally measured over the last three years before the start of the project or on the basis of projected growth rate in the coming three to five years.

*Product concerned*

- (138) The product concerned is normally the product covered by the investment project. However, when the project concerns an intermediate product and a significant part of the output is not sold on the market, the product concerned may be the downstream product. In the case at hand the intermediate product is aniline and the final product is MDI.
- (139) The intermediate product resulting from the investment project for which aid has been notified, i.e. the aniline, will only be used as an input for the MDI production in Kazincbarcika and will not be sold on the market. In general aniline is primarily used for manufacturing MDI (approximately 95%).
- (140) Therefore, the Commission considers that MDI is the product concerned by the investment.

*Relevant product market*

- (141) The Hungarian authorities explained that due to the applied technology and the production flow, the aniline plant can only produce aniline, and the MDI plant can only produce MDI. Production of any other materials is technologically not feasible. MDI cannot be substituted by another product. However, MDI might be used to replace other products which have environmental and/or health risks.

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<sup>39</sup> See paragraph 79 of the RAG and section 3.3.3.4 of this decision.

<sup>40</sup> It might also be necessary to verify whether an absolute decline is not hidden behind the effects of business cycle effects on the product market concerned, or caused by other exceptional effects that would bias the results of the standard approach. Constantly sinking product prices might be an indicator for a situation of absolute decline, or simply the result of substantial and continuous technical progress allowing to reduce per unit production costs.

- (142) The Commission notes that the MDI plants cannot be converted into production plants of other chemicals without any additional significant investment and that therefore there is no substitutability on the supply side.
- (143) MDI is used to manufacture rigid and flexible PU foam (in terms of consumption by product, PU foams accounted for about 80% of MDI consumed in 2016), coatings, elastomers, sealants, and adhesives. Other applications include use as a chemical intermediate for rubber-processing chemicals, dyes, and pigments as well as its use in pharmaceuticals, specialty fibres, chemical intermediates for agricultural chemicals and other uses.
- (144) The Hungarian authorities argue that as regards the beneficiary's customers, the replacement of MDI by other chemical substances in most cases (in particular in the case of foams which represents the majority) is not feasible from a technological point of view. It means that customers cannot produce foams according to their specifications by using any other material than MDI. In certain consumption area, like shoe industry, MDI could be replaced theoretically, however it could not ensure the same quality end-products. The Hungarian authorities also explained that in the case of composite wood products, the formaldehyde-based resin is an alternative to MDI, however that material is prohibited in several countries due to health risks. Consequently, the Commission notes that there is no product to effectively substitute MDI on the demand side.
- (145) In view of the above, the Commission considers for the purpose of the present state aid assessment that the relevant product market is the MDI market. The Commission therefore verifies whether the aid would create overcapacity in a market in absolute decline on the MDI market.

Relevant geographic market

- (146) The Hungarian authorities argue that the relevant geographic market for the MDI market is the EEA.
- (147) The Hungarian authorities submitted in this context a market analysis<sup>41</sup>, indicating that the MDI geographic markets mainly follow the different continents and regions (Asia Pacific, Europe, North America, Middle East (which includes Africa), and Latin America). The independent study demonstrates that there are different prices of MDI in the different regions (in the most expensive – North America - region the price per ton was 35% higher than in the cheapest – Asia Pacific – region in 2016). Thus, the Hungarian authorities argue that the differences in price per region clearly show that the markets can be separated clearly from each other.
- (148) MDI manufacturers tend to have production facilities on the continent and regions they intend to supply with their MDI production. The reason for this is that MDI manufacturers cannot produce MDI by such a cost effective process that could offset the high transportation costs especially between continents. Therefore MDI manufacturers can offer MDI only at less competitive prices when selling and transporting to a consumer that is relatively far from the MDI manufacturing site.
- (149) The Hungarian authorities also emphasised [>90] % of BorsodChem's MDI production is sold in EEA and in Turkey.

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<sup>41</sup> HJResearch: Global Methylene Diphenyl Diisocyanate (MDI) Industry Market Research 2017.

- (150) Even though the Hungarian authorities consider that the relevant geographic MDI market is that of the EEA, they also presented data in this notification also for the global market<sup>42</sup>.
- (151) For the purpose of the present decision, the Commission decided to leave open the question of the exact definition of the geographic market. Given that the EEA market is narrower than the global market, the Commission decided to limit the competition test to this narrower market. The Commission will first verify whether the aid creates overcapacity in a market in absolute decline at the level of the MDI market of the EEA.

*Testing whether the aid creates overcapacity in a market in absolute decline*

- (152) The Hungarian authorities provided growth data on the basis of historical data and of forecasts for the period 2014-2019. The EEA MDI market's compound annual growth rate (CAGR)<sup>43</sup> is 5.15% in value terms between 2014 and 2019<sup>44</sup>. The EEA GDP growth rate was about 1.8% in 2014, 2.3% in 2015 and 2% in 2016. On this basis, the Commission notes that the EEA MDI market is not in absolute decline<sup>45</sup>.
- (153) As the market is not in absolute decline there is no need to further analyse the creation of a potential overcapacity. The Commission nevertheless notes that the aid would not lead to the creation of overcapacity, as the investment project will not result into creation of additional MDI capacities. The Commission concludes that the aid does not contribute to the creation of overcapacity in a market in absolute decline, thus does not have a manifest negative effect on competition.

*3.3.4.3. Manifest negative effect: Counter-cohesion effect*

- (154) Paragraph 121 of the RAG lays down an anti-cohesion effect provision that applies exclusively for scenario 2 situations. This provision prohibits<sup>46</sup> the region with the lower project-specific viability to participate in subsidy races to the detriment of equally weak or worse-off regions. As the Commission has concluded that locating the investment in another location than Kazincbarcika is not a realistic option, it considers that the aid does not have or risk to have a counter-cohesion effect.

<sup>42</sup> According to the "Global Methylene Diphenyl Isocyanate (MDI) Market 2015-2019" study, the global MDI market is expected to grow at a CAGR of 6.55% (by volume) during 2014-2019.

<sup>43</sup> Europe Methylene Diphenyl Diisocyanate (MDI) Market <http://www.micromarketmonitor.com/market/europe-methylene-diphenyl-diisocyanate-mdi-4528202376.html>

<sup>44</sup> Concerning market data in volume terms the Hungarian authorities presented information on the basis of a presentation of a competitor, which is publicly available (Covestro Investor Presentation, London, 29 June 2017). The important competitor, Covestro estimates a CAGR of 3% in volume terms for MDI between 2016 and 2021. The GDP growth rate in the EEA was about 2% in 2016 and 2.4 in 2017.

<sup>45</sup> To the request of the Commission the Hungarian authorities also provided growth data regarding the aniline market. The EEA consumption of aniline is forecasted to grow at a CAGR of about 4.9% during 2017–2027 (Aniline: 2017 World Market Outlook and Forecast up to 2027 - Merchant Research & Consulting Ltd.). The global aniline market is expected to grow at a CAGR of 6.83%-7% during the period between 2017-2021. (Global Aniline Market 2017-2021 - Increase in the demand for aniline for the production of MDI - Research and Markets <https://www.businesswire.com/news/home/20171220005576/en/Global-Aniline-Market-2017-2021---Increase-demand>; APAC Tops the Global Aniline Market | Technavio [http://www.percal-project.eu/detalle\\_registro.php?re\\_id=712&tipo=1](http://www.percal-project.eu/detalle_registro.php?re_id=712&tipo=1)).

<sup>46</sup> According to paragraph 121 this would constitute a negative element in the overall balancing test that is unlikely to be compensated by any positive elements, because it runs counter the very rationale of regional aid.

#### *3.3.4.4. Manifest negative effect: Closure of activities elsewhere/relocation*

- (155) Pursuant to paragraph 122 of the RAG, where the beneficiary has concrete plans to close down or actually closes down the same or a similar activity in another area in the EEA and relocates that activity to the target area, if there is a causal link between the aid and the relocation, this will constitute a negative effect that is unlikely to be compensated by any positive elements.
- (156) The Hungarian authorities and the aid beneficiary declared that the beneficiary has not closed down the same or similar activity in the EEA in the two years preceding the application for aid and does not have any concrete plans to do so within two years after completion of the investment. The Commission therefore considers that the aid has no causal link to any closure or relocation.

#### *3.3.4.5. Conclusion as to the existence of manifest negative effects on competition and trade*

- (157) The assessment in recitals (125) to (156) of this decision therefore allows concluding that the aid has no manifest negative effect on competition or trade in the meaning of section 3.7.2. of the RAG.

#### *3.3.5. Balancing of positive and negative effects of the aid*

- (158) Paragraph 112 of the RAG lays down the following: "For the aid to be compatible, the negative effects of the measure in terms of distortion of competition and impact on trade between Member states must be limited and outweighed by the positive effects in terms of contribution to the objective of common interest. Certain situations can be identified where the negative effects manifestly outweigh any positive effects, meaning that aid cannot be found compatible with the internal market."
- (159) The assessment of the minimum requirements demonstrated that the aid measure is appropriate, the counterfactual scenario presented is credible and realistic, the aid has incentive effect and is limited to the amount necessary to incentivise the beneficiary to adopt a positive investment decision. By triggering an investment in the assisted region, the aid contributes to the regional development of the Észak-Magyarország (Kazincbarcika) region. In addition, the aid will have a positive effect on the environment, as it contributes to the reduction of environmental risks stemming from long distance transportation of toxic materials. The assessment also showed that the aid has no manifest negative effect: it does neither lead to the creation or maintenance of overcapacity in a market in absolute decline, nor does it lead to excessive effects on trade; in particular, it respects the applicable regional aid ceiling, has no anti-cohesion effect, and has no causal link to the closure of activities elsewhere and their relocation to Kazincbarcika. In addition, the aid does not entail a non-severable violation of EU law<sup>47</sup>.
- (160) Moreover, the Commission has to include in its balancing assessment undue negative effects on competition as identified in paragraphs 114, 115 and 132 of the RAG; i.e. the creation or reinforcement of a dominant market position or the creation or reinforcement of overcapacities in an underperforming market (even if this market is not in absolute decline).

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<sup>47</sup> See paragraph 28 of the RAG

- (161) The Commission considers that the aid does not lead to (or reinforces) a dominant market position of the aid beneficiary<sup>48</sup>, given that the aniline produced as a result of the investment is not sold on the market and the investment does not lead to further capacity creation in the MDI market. Consequently, the aid does not lead to the creation of overcapacity in a market in decline. The aid is limited to the amount necessary, and thus does not make available "free money" to the aid beneficiary. It has therefore no negative effect on competition.
- (162) The effect of the aid on trade between Member States is limited as mainly the aniline produced and imported from intra-group will be replaced by own production in Kazincbarcika (the aniline quantity purchased earlier from third parties located in the EEA was marginal<sup>49</sup> and the company does not plan to continue buying from these suppliers in any of the alternative scenarios). Aniline is an intermediate product and will not be sold on the market but will be used to supply the MDI production of the establishment. The total MDI output will be the same regardless of the investment project. Thus, the effect of the investment on trade flows between Member States would be very largely the same whether it takes place or whether the beneficiary continues to import the aniline from the intra-group companies located in China.

### **3.3.6. Transparency**

- (163) In view of para.II.2 of the Transparency Communication from the European Commission<sup>50</sup> Member States must ensure the publication on a comprehensive State aid website, at national or regional level, of a full text of the approved aid scheme or the individual aid granting decision and its implementing provisions, or a link to it; the identity of the granting authority or authorities; the identity of the individual beneficiaries, the form and amount of aid granted to each beneficiary, the date of granting, the type of undertaking (SME/large company), the region in which the beneficiary is located (at NUTS level II) and the principal economic sector in which the beneficiary has its activities (at NACE group level). Such information must be published after the decision to grant the aid has been taken, must be kept for at least ten years and must be available to the general public without restrictions.
- (164) The Commission notes that the Hungarian authorities confirmed that all requirements concerning transparency set out in para.II.2 of the Transparency Communication will be respected.

## **4. CONCLUSION**

- (165) The Commission has accordingly decided

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<sup>48</sup> The market share of WIG on the basis of production value and volume in the EEA MDI market is estimated to be between [7-13] % in the years between 2017 and 2022. On the basis of capacity (in volume terms) the trend is similar with a forecasted share of [7-11] % in the same period. Concerning the global market it is estimated that WIG will have an average production value share of about [<25] % in 2017-22 and its production volume share will [...] from [<25] % in 2017 to [...] [<25] % in 2022. WIG's global MDI market share forecast based on capacity follows a similar trend as its production volume ([<25] % in 2017 to [<25] % in 2022).

<sup>49</sup> See recital (8) of this decision.

<sup>50</sup> Communication from the European Commission amending the Communications from the European Commission on EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, on Guidelines on regional State aid for 2014-2020, on State aid for films and other audiovisual works, on Guidelines on State aid to promote risk finance investments and on Guidelines on State aid to airports and airlines, OJ C 198, 27.6.2014, p. 30.

not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(a) of the Treaty on the Functioning of the European Union.

(166) The Commission reminds the Hungarian authorities of their commitment to fulfil the reporting obligations.

(167) The Commission further reminds the Hungarian authorities that all plans to modify that aid measure must be notified to the Commission.

Finally, the Commission notes that the Hungarian authorities agreed to have the present decision adopted in the English language.

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Fax No: 32 2 296 12 42

Yours faithfully,  
For the Commission

*Margrethe Vestager*  
Member of the Commission

<p><b>CERTIFIED COPY</b> For the Secretary-General,</p> <p><b>Jordi AYET PUIGARNAU</b> Director of the Registry <b>EUROPEAN COMMISSION</b></p>
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