II

(Acts adopted under the EC Treaty/Euratom Treaty whose publication is not obligatory)

DECISIONS

COMMISSION

COMMISSION DECISION

of 30 April 2008

on State aid C 21/07 (ex N 578/06) which Hungary is planning to implement in favour of IBIDEN Hungary Gyártó Kft.

(notified under document number C(2008) 1342)

(Only the Hungarian text is authentic)

(Text with EEA relevance)

(2008/830/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community, and in particular the first subparagraph of Article 88(2) thereof,

Having regard to the Agreement on the European Economic Area, and in particular Article 62(1)(a) thereof,

Having called on interested parties to submit their comments pursuant to the provisions cited above [1] and having regard to their comments,

Whereas:

1. PROCEDURE

(1) By electronic notification dated 30 August 2006, registered the same day at the Commission, the Hungarian authorities notified a case of application of existing regional aid schemes in favour of an initial investment project by IBIDEN Hungary Gyártó Kft. The notification was made pursuant to the individual notification requirement laid down in paragraph 24 of the Multisectoral Framework on regional aid for large investments projects 2002 [2] (hereafter: MSF 2002).

(2) The Commission requested additional information by letters of 13 October 2006 (D/58881) and 13 March 2007 (D/51161).

(3) By letters registered at the Commission on 14 November 2006 (A/39085), 3 January 2007 (A/30004), 15 January 2007 (A/30441) and 27 March 2007 (A/32641) the Hungarian authorities asked the Commission to extend the deadline for providing additional information, which the Commission accepted.

(4) The Hungarian authorities submitted additional information by letters registered at the Commission on 31 January 2007 (A/30990) and 15 May 2007 (A/34072).

(5) On 11 December 2006 and on 25 April 2007, meetings were held between the Hungarian authorities and the Commission services where also representatives of IBIDEN Hungary Gyártó Kft. were present.

[1] OJ C 224, 25.9.2007, p. 2.

[2] Communication from the Commission — Multisectoral framework on regional aid for large investment projects (OJ C 70, 19.3.2002, p. 8) as modified by the Commission communication on the modification of the Multisectoral Framework on regional aid for large investment projects (2002) with regard to the establishment of a list of sectors facing structural problems and on a proposal of appropriate measures pursuant to Article 88 paragraph 1 of the EC Treaty, concerning the motor vehicle sector and the synthetic fibres sector (OJ C 263, 1.11.2003, p. 3).

(6) By letter dated 10 July 2007, the Commission informed Hungary that it had decided to initiate the procedure laid down in Article 88(2) of the EC Treaty in respect of the aid.

(7) The Commission Decision to initiate the procedure was published in the *Official Journal of the European Union* ([3]). The Commission invited interested parties to submit their comments on the aid measure.

(8) The Commission received four comments from interested parties:

(a) by letter dated 25 October 2007, registered at the Commission on the same day (A/38842);

(b) by letter dated 22 November 2007, registered at the Commission on 24 November 2007 (A/39732);

(c) by letter dated 23 November 2007, registered at the Commission on the same day (A/39711);

(d) by letter dated 26 November 2007, registered at the Commission on 27 November 2007 (A/39740).

(9) By letter dated 4 December 2007 (D/54826), the Commission forwarded the observations received to Hungary which was given the opportunity to react.

(10) The opinion from Hungary to the comments of interested parties was received by letter dated 4 January 2008, registered at the Commission on the same day (A/151).

2. DETAILED DESCRIPTION OF THE AID

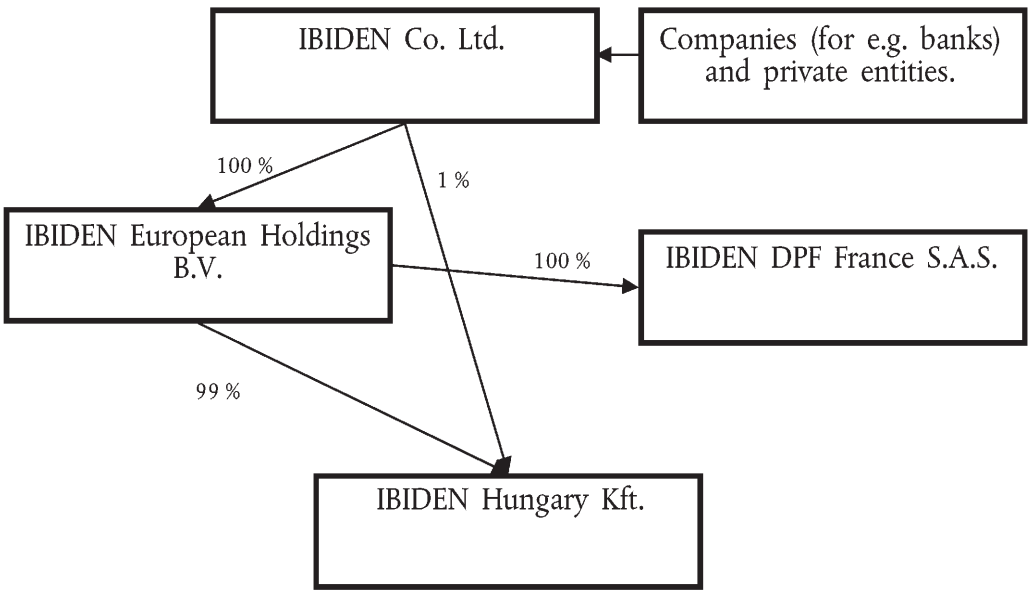
2.1. Objective of the measure

(11) The Hungarian authorities intend to promote regional development by providing regional investment aid to IBIDEN Hungary Gyártó Kft. for the setting up of a new manufacturing plant for the production of ceramic substrates for Diesel Particulate Filters in the Dunavarsány Industrial Park, in the region of Central Hungary (Pest County), which is an assisted area in accordance with Article 87(3)(a) of the EC Treaty with an aid intensity ceiling of 40 % Net Grant Equivalent (NGE) for the period 2004-2006 ([4]).

2.2. The beneficiary

(12) The aid beneficiary is 'IBIDEN Hungary Gyártó Kft.' (hereinafter: IBIDEN HU). The aided project aims to set up the second production plant within IBIDEN's ceramics division of ceramic substrates for Diesel Particulate Filters in the European Union, besides IBIDEN DPF France S.A.S. in France (set up in 2001).

(13) IBIDEN HU was established on 5 May 2004 by IBIDEN European Holdings B.V. (The Netherlands) and IBIDEN Co., Ltd. (Japan). IBIDEN European Holdings B.V. is 100 % owned by IBIDEN Co., Ltd., which in turn is a joint-stock company with many proprietors: companies (e.g. banks) and private entities. IBIDEN HU is 99 % owned by IBIDEN European Holdings B.V. and 1 % by IBIDEN Co., Ltd. IBIDEN DPF France S.A.S. has been owned by IBIDEN European Holdings B.V. by 100 % since the end of 2005.



([3]) Cf. footnote 1.

([4]) Commission letter of 9 July 2004, C(2004) 2773/5 concerning HU 12/2003 — Regional aid map of Hungary for the period from 1 May 2004 until 31 December 2006.

(14) The parent company IBIDEN Co., Ltd. is a multinational company that was established in 1912, as a company generating electric power, and has its headquarters in Gifu, Japan. Its operations can be divided into five segments whose shares in the 2005 annual sales turnover were the following: 50 % for the electronics division, 22 % for the ceramics division, 16 % for the housing materials division, 4 % for the construction materials division and 8 % for other small divisions (such as oil products, information services, synthetic resin, agriculture, livestock and fishery processing departments). According to the Annual Report of 2006 ([5]), the IBIDEN Group consists of 47 subsidiaries and one affiliated company, which is not active in the ceramic sector. In 2006 consolidated net sales were Yen 319,0 billion, operating income was Yen 43,6 billion, and net income was Yen 27,2 billion. In the same year, the group counted 10 115 employees in its business representations and factories all over the world.

2.3. **Investment project**

2.3.1. *The new investment project of IBIDEN HU in Dunavarsány*

(15) The notification concerns the second phase of an investment project, which aims to set up a plant to produce ceramic substrates for Diesel Particulate Filters in the Dunavarsány Industrial Park.

(16) By letter dated 1 April 2005 the Hungarian authorities, in line with paragraph 36 of the MSF 2002 ([6]), informed the Commission about the State aid granted to IBIDEN HU for the first phase of the investment project.

(17) The Hungarian authorities indicate that the two phases of the investment by IBIDEN HU in the Dunavarsány Industrial Park have to be considered as a single investment project within the meaning of paragraph 49 of the MSF 2002: the two investment phases concern the same production site, the same company, the same product and they were started within a period of three years.

(18) According to the information provided by the Hungarian authorities on the two investment phases, the production of ceramic substrates for Diesel Particulate Filters will take place in two newly built buildings of 24 000 m^2 and 30 900 m^2 respectively in the Dunavarsány Industrial Park. By 2007, four production lines will be installed in building I and five lines will be installed in building II.

(19) By 2007 the project will create a total of 1 100 new direct jobs in Dunavarsány.

(20) The Hungarian authorities confirm that no other products than those concerned by the investment project will be produced at the aided facility for five years after the completion of the investment.

(21) In addition, the Hungarian authorities confirm that the beneficiary accepted to maintain the investment at the site for a minimum period of five years after the completion of the investment.

2.3.2. *Timing of IBIDEN HU investment project in Dunavarsány*

(22) The works on the investment project have already started in October 2004. Production linked to the project started in August 2005 in building I and in May 2006 in building II. Full capacity linked to the project was expected to be reached in April 2007. Table I provides further details on the timing of the project:

Table I

Timing of the investment project

	Start of project	Start of production	End of project	Full production capacity
Phase I	6.10.2004	1.8.2005	1.1.2006	1.5.2006 (1,2 million units annually)
Phase II	20.6.2005	3.5.2006	31.3.2007	1.4.2007 (a further 1,2 million units annually)

([5]) Financial year ended 31 March 2006.

([6]) In order to ensure transparency and effective monitoring on regional aid to large investment projects, paragraph 36 of the MSF 2002 provides for a special 'transparency mechanism'. Under the transparency mechanism Member States must provide information in a standard format whenever aid is granted under the MSF 2002 for non-notifiable projects with eligible costs exceeding EUR 50 million.

2.4. **Costs of the investment project**

(23) The total eligible investment costs of the project are HUF 47 570 933 882 (EUR 190,83 million) in nominal value. In present value this amount is HUF 41 953 072 670 (EUR 168,30 million) ([7]). Table II provides a breakdown of the total eligible costs by year and category.

Table II

Eligible investment costs (Phases I and II) nominal value in million HUF

	2004		2005		2006		2007		Total
Land	[…] (*)		[…]		[…]		[…]		[…]
Infrastructure	[…]		[…]		[…]		[…]		[…]
Buildings	[…]		[…]		[…]		[…]		[…]
Utility	[…]		[…]		[…]		[…]		[…]
Machinery	[…]		[…]		[…]		[…]		[…]
Eligible Investment	[…]		[…]		[…]		[…]		47 571
	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II	
	[…]	[…]	[…]	[…]	[…]	[…]	[…]	[…]	

(*) Covered by the obligation of professional secrecy.

2.5. **Financing of the project**

(24) The Hungarian authorities confirmed that the own contribution by the beneficiary exceeds 25 % of the eligible costs, which is free of any public support.

2.6. **Legal basis**

(25) The financial support to IBIDEN HU is granted on the basis of the following two legal basis:

(a) The Ministry of Economy and Transport will give a grant on the basis of the scheme 'HU 1/2003 — Earmarked Scheme for Investment Promotion' ([8]). This scheme has as its legal basis 'Decree 1/2001 (I.5.) of the Minister of Economy on the Earmarked Scheme for Entrepreneurship' and 'Decree 19/2004 (II. 27.) of the Minister of Economy and Transport on Detailed Rules of Certain Aid Schemes of the Ministry'.

(b) The Ministry of Finance will grant a tax allowance based on the scheme 'Development Tax Benefit' ([9]). This scheme was established by 'Act LXXXI of 1996 on Corporate Tax and Dividend Tax' and by 'Government Decree 275/2003 (XII.24.) on the Development Tax Benefit'.

2.7. **Aid amount and aid intensity**

(26) The total nominal aid amount is HUF 15 591 223 750 (EUR 62,55 million), which corresponds to HUF 9 793 809 933 (EUR 39,29 million) in present value. On the basis of the eligible costs indicated in paragraph 23 above, this corresponds to an aid intensity of 22,44 % in net grant equivalent (NGE) ([10]).

([7]) Calculated, in accordance with the rules of the underlying aid scheme, on the basis of an exchange rate of 249,28 HUF/EUR (applicable on 31 August 2004) and a reference rate of 8,59 %.

([8]) HU 1/2003 'Earmarked Scheme for Investment Promotion' was submitted under the interim procedure and accepted by the Commission as existing aid within the meaning of Annex IV, Chapter 3, paragraph (1)(c) (under Article 22) of the Treaty of Accession of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary Malta, Poland, Slovenia and Slovakia to the European Union.

([9]) HU 3/2004 'Development Tax Benefit Scheme' was submitted under the interim procedure and accepted by the Commission as existing aid within the meaning of Annex IV, Chapter 3, paragraph (1)(c) (under Article 22) of the Treaty of Accession of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary Malta, Poland, Slovenia and Slovakia to the European Union. The amendment of the scheme was notified to the Commission (case number N 504/2004) and approved by the Commission on 23 December 2004 (ref. C(2004) 5652).

([10]) In this decision, the net grant equivalent (NGE) is calculated on the basis of the standard corporate tax rate applicable in Hungary (16 %).

(27) The aid is being provided in the form of the following two aid instruments. First, the Ministry of Economy and Transport is making a grant with a total amount in nominal value of HUF 3 592 000 000 (EUR 14,41 million) dispersed over the years of 2005 till 2007. Second, the Ministry of Finance is providing a corporate tax allowance ([11]) estimated at HUF 11 999 223 750 (EUR 48,14 million) in nominal value disbursed over the years 2007 until 2016. The grant in present value amounts to HUF 3 118 450 763 (EUR 12,51 million) and the tax allowance in present value is HUF 6 675 359 170 (EUR 26,78 million).

(28) The Hungarian authorities specified that aid in the amount of HUF 7 411 828 735 (EUR 29,73 million) in present value (HUF 11 745 422 640 or EUR 47,12 million in nominal value) had already been granted to IBIDEN HU on the basis of the existing regional aid schemes ([12]) up to the individual notification threshold established in paragraph 24 of the MSF 2002. For the first phase of the investment project the Ministry of Finance granted aid on 25 February 2005 in the amount of HUF 4 832 595 058 (EUR 19,39 million) in present value (HUF 8 773 422 640 or EUR 35,20 million in nominal value) and the Ministry of Economy and Transport granted aid on 3 March 2005 in the amount of HUF 1 875 354 000 (EUR 7,52 million) in present value (HUF 2 142 000 000 or EUR 8,60 million in nominal value). For the second phase of the investment the Ministry of Economy and Transport granted aid in the amount of HUF 703 879 677 (EUR 2,82 million) in present value (HUF 830 000 000 or EUR 3,33 million in nominal value) on 22 December 2006.

(29) Thus, according to the Hungarian authorities, the aid amount, which is subject to the notification, is the difference between the total amount of aid and the support already granted, *i.e.* HUF 2 381 981 198 (EUR 9,56 million) in present value (in nominal value this amount is HUF 3 845 801 110 or EUR 15,43 million).

(30) Regarding the remaining aid amount to be granted for the second phase of the investment, the Hungarian authorities have suspended the decision-making process until the decision of the European Commission. Thus, the authorisation of the notified aid is subject to Commission approval.

([11]) The tax allowance is capped in terms of its overall present value.
([12]) HU 1/2003 'Earmarked Scheme for Investment Promotion' and N 504/2004 (ex HU 3/2004) 'Development Tax Benefit Scheme'.

(31) The Hungarian authorities confirm that the aid for the project cannot be cumulated with aid received for the same eligible costs from other local, regional, national or Community sources.

(32) The Hungarian authorities confirm that the aid applications for the first phase of the investment project were submitted on 5 December 2003 at the Ministry of Economy and Transport and on 16 September 2004 at the Ministry of Finance. The aid applications for the second phase of the investment project were submitted on 28 March 2005 and on 31 May 2005 respectively. Therefore, the respective aid applications had been made before work started on the first phase on the project on 6 October 2004 and on the second phase of the project on 20 June 2005.

2.8. **General commitments**

(33) The Hungarian authorities committed themselves to submit to the Commission:

— within two months of granting the aid, a copy of the signed aid/investment contract(s) between the granting authority and the beneficiary;

— on a five-yearly basis, starting from the approval of the aid by the Commission, an intermediary report (including information on the aid amounts being paid, on the execution of the aid contract and on any other investment projects started at the same establishment/plant);

— within six months after payment of the last tranche of the aid, based on the notified payment schedule, a detailed final report.

3. **GROUNDS FOR INITIATING THE FORMAL INVESTIGATION PROCEDURE**

(34) The notified project concerns the production of '*ceramic substrates for diesel particulate filters*' (hereafter: DPF), which are installed in diesel passenger cars and light duty trucks. The ceramic part, which is produced by IBIDEN HU, is an intermediate product (TIER 3), which is then sold under market conditions to independent companies, which apply a precious metal coating of the substrate to form a coated DPF (TIER 2). The coated DPFs are then sold to exhaust manifold producers (TIER 1), which are the direct suppliers of car assembly factories.

(35) The Commission, in the Decision to initiate the formal investigation procedure indicated that the Hungarian authorities suggested a broad definition of the relevant market, covering both key parts of the exhaust gas treatment system of diesel engine vehicles, namely Diesel Oxidation Catalysts (hereafter: DOC), which treat gases (*i.e.* CO and HC) and to a certain extent the soluble organic fraction (SOF) of particulate matter (PM); and Diesel Particulate Filters (hereafter: DPF) ([13]), which are effective in treating the insoluble fraction of particulate matter, *i.e.* soot. They argue these devices are very similar to each other, since both aim to reduce harmful substances from emissions, and therefore belong to the same relevant market. They also argue that the production processes and technologies to manufacture the two components are very similar.

(36) The Commission, in the Decision to initiate the formal investigation procedure in the present case, noted that it had doubts on the compatibility of the aid with the common market based on Article 87(3)(a) of the EC Treaty and on the MSF 2002. The Commission also noted that the approach of the Hungarian authorities with regards to the relevant market was also not supported by the two independent market studies (the study by *Frost & Sullivan Ltd (F&S)* ([14]) and by *AVL List GMBH (AVL)*) ([15]), which were submitted by the Hungarian authorities.

(37) In particular, the Commission expressed doubts whether DOC and DPF can be considered as substitutes, which belong to the same relevant product market of after-treatment devices and, at the moment of the initiation of the formal investigation procedure, the Commission considered that the relevant product market was narrower and covered only substrates of Diesel Particulate Filters to be fitted in diesel exhaust systems.

(38) First, the Commission noted that the DPF's main function is to treat solid inorganic and insoluble particulate matter (*i.e.* soot), while the DOC aims to clean hazardous gases and the soluble organic fraction (SOF) contained in particulate matter, without being able to collect soot. While it is true that there is some overlap between the two functions insofar as the coated DPF treats as well harmful gases to a certain extent, this does not eliminate the need for a separate DOC in the exhaust gas treatment system. Both components will continue to co-exist and have to be installed together in the period to be considered (*i.e.* until 2008). For future Euro 5-6 technologies DOCs will continue to be used for oxidation of CO, HC and SOF. Thus, the Commission noted that there appeared to be no substitutability on the demand side, as these are two separate and complementing devices.

(39) The Commission also noted in the decision to initiate the formal investigation procedure that, according to one of the studies, a truly multi-functional product, which integrates on one ceramic monolith the functions of both DOC and DPF, had recently been introduced by the company Eberspächer and it was used in the Volkswagen Passat. However, the Commission doubted whether IBIDEN HU's product is suitable for such a complete multi-functionality.

(40) Second, the Commission noted that the substitutability on the supply side was also questionable. No concrete evidence of substrates for DOCs producers, which are also capable of producing substrates for DPFs with the same equipment without major additional investment costs, or vice versa, were provided. Furthermore, substitutability is also doubtful because the price of the DPF is around four times higher than the price of the DOC.

(41) Finally, the Commission observed that while the aid appears to meet the conditions of the Guidelines on national regional aid 1998 ([16]), the Commission had doubts whether the market share of the beneficiary in the relevant market is below 25 % as required by paragraph 24(a) of the MSF 2002. The market studies submitted by the Hungarian authorities indicate that the share in volume terms of IBIDEN in the DPF market in Europe substantially exceeds the 25 % threshold both before and after the investment. Thus the condition under paragraph 24(a) of MSF 2002 is not respected if the DPF is regarded as the relevant market. However, in the combined market of the DPF and DOC, which is considered as relevant by the Hungarian authorities, IBIDEN's market share would remain below 25 % both before and after the investment in volume terms.

4. COMMENTS FROM INTERESTED PARTIES

(42) In response to the publication of its Decision to open the formal investigation procedure in the *Official Journal of the European Union*, the Commission received observations by the following interested parties:

(a) the aid beneficiary IBIDEN Hungary Gyártó Kft.;

([13]) Differences in the intended use between the end products, DPF and DOC, are a reflection of the different uses of their respective substrates. Therefore, hereafter in the decision *DPF* will be used alternatively to *substrate of DPF*.

([14]) 'Strategic analysis of the European market for Diesel Particulate Filters', October 2006. The firm Frost & Sullivan is active in market/industry consulting and research.

([15]) 'Market survey on PM reduction after-treatment devices', March 2007. AVL List is closely involved with the design and development of internal combustion engines. The AVL study, which was commissioned by IBIDEN HU for the present case, argues that both DOC and DPF belong to the same relevant product market, however, the data and analysis presented in the AVL study do not confirm this argument, *i.e.* various elements/information in the study indicate the absence of substitutability, and not the opposite.

([16]) OJ C 74, 10.3.1998, p. 9.

(b) Aerosol & Particle Technology Laboratory, Thermi-Thessaloniki, Greece, a centre for research and technology;

(c) Saint-Gobain Industrie Keramik Rödental GmbH, Rödental, Germany, a competitor (hereafter: Saint-Gobain);

(d) an interested party, which, pursuant to Article 6(2) of the Council Regulation (EC) No 659/1999 ([17]), requested the Commission to withhold its identity.

(43) The arguments put forward by the above-mentioned interested parties can be summarised as follows.

4.1. **Relevant product market according to IBIDEN HU and Aerosol & Particle Technology Laboratory**

(44) The aid beneficiary IBIDEN HU and Aerosol & Particle Technology Laboratory are in favour of taking a broad market definition, which would cover all components (mainly DOC and DPF) in the exhaust gas treatment system of diesel engine vehicles. They observe that DOC and DPF are very similar to each other, since both aim to reduce harmful substances from emissions, and therefore belong to the same relevant product market.

(45) According to this opinion, both DOC and DPF would be regarded as PM removal components, although IBIDEN HU acknowledges that DOC is ineffective in treating the insoluble part of PM (*i.e.* soot). The interested parties argue that due to the fact that IBIDEN HU's product is able to filter HC and CO in addition to its main function of filtering soot, it belongs to the same market as DOC. It is up to car manufacturers to decide whether to construct the exhaust gas treatment part from independent components for detoxifying gaseous harmful substances and for treating the particle substances or to use the multifunctional component.

(46) Nevertheless, IBIDEN HU acknowledges in its submission that in spite of the additional function of IBIDEN HU's DPF that helps cleaning gases (HC and CO) more efficiently, the combined use of DPF and DOC is necessary to ensure compliance with emission regulations. A high quality, well-developed DPF can reduce the size and sophistication of the DOC that car manufacturers need to install in their cars, thus, the DPF has had a huge impact on the DOC, and vice versa, which means that as one device becomes more sophisticated, the other device has to correspond to these changes.

(47) Both IBIDEN HU and Aerosol & Particle Technology Laboratory refer to a trend in the technological development of DOC and DPF leading to a new generation of filters, which could incorporate the advantages, characteristics and former technologies in one unit, thereby combining the DOC and DPF on the same monolith substrate (for instance, Volkswagen has already introduced fourth generation after-treatment components to its Passat model, using just one DPF with no DOC). IBIDEN HU however indicated that it currently produces the 'third generation' ([18]) DPF and carries out continuous product improvement so that it can be converted into the 'fourth generation' DPF capable of fully incorporating the functionalities of the DOC.

(48) IBIDEN HU also indicated that, although the Commission in the Decision to open the formal investigation procedure suggests the opposite, in reality the price of IBIDEN's product is not four times more than the price of a DOC. IBIDEN HU manufactures a semi-finished product, and therefore the final product (coated DPF) is much more expensive than IBIDEN HU's semi-finished product. The current industry experience shows that the market price of the device after the coating, canning and application of the mat is 2,5 times higher than that of the substrate, the product of IBIDEN Group: for example, in 2007 the market price of a DPF was EUR 453 and the price of the substrate (semi-finished product) was only EUR […], while the market price of a DOC was EUR 102 in 2007 ([19]).

(49) Moreover, regarding the supply side substitution, IBIDEN HU indicates that the production technologies of DOC and DPF are very similar: the only main differences are that in the case of DPF a plugging process is added to that of DOC's and the phase of cutting is earlier than in the case of DOC.

(50) Furthermore, IBIDEN HU claims that according to several studies, including a document by Johnson Matthey Japan, there are manufacturers that produce both DOC and DPF, so the distinction between DOC manufacturers and DPF manufacturers is blurred.

([17]) OJ L 83, 27.3.1999, p. 1.

([18]) The concept of subsequent generations of the product is used by IBIDEN HU to refer to the evolution of the technology.

([19]) However, as regards the DOC's market price of EUR 102, as provided in the AVL study, it seems that it refers to the DOC price after coating at TIER 2 as well, and therefore the price of the DOC substrate would need to be adjusted downwards the same way as IBIDEN adjusted DPF's substrate prices.

4.2. **Relevant product market according to Saint-Gobain and the interested party whose identity is withheld**

(51) Two of the four interested parties — Saint-Gobain and the party whose identity is withheld — supported the Commission's doubts expressed in the Decision to open the formal investigation procedure. According to them, DOC and DPF cannot be considered as substitutes and thus they do not belong to the same relevant product market. Therefore, they argue that in the present case the DPF market alone is the relevant product market. According to these parties, the main reasons for this are the following:

4.2.1. *No demand side substitution*

(52) The interested parties indicate that the main characteristics of the substrates for a DOC and a DPF are different: a DOC substrate is usually made from non porous cordierite which must resist 400 °C temperatures or from stainless metal foil. A DPF substrate is in general made of porous silicon carbide which must resist 1 000 °C (resistance to such high temperature is needed to burn-off soot and avoid blockage of the coated filter). Thus, due to very different thermal characteristics, customers cannot switch between substrates for DPF and substrates for DOC in case of relative price increase for one of the products.

(53) According to Saint-Gobain, since the materials used for the substrates for DPF are higher performance materials, there is also a difference in prices between the two components: a substrate (without the cost of catalyst coating and canning) of a DPF on average costs EUR 120, while a substrate of a DOC on average costs between EUR 12-EUR 20 (also without the cost of catalyst coating and canning). Therefore, as Saint-Gobain claims, DPF manufacturers can obviously not switch to a DOC substrate for technical reasons (which they would otherwise do given the price difference) and a DOC producer would not substitute a DOC substrate with a DPF substrate as he/she would get a much more expensive product without an oxidation function comparable to a DOC substrate.

(54) Saint-Gobain and the party with withheld identity also emphasize the differences in the use of a DOC and a DPF ([20]): the primary purpose of a DOC is to oxidise certain gases by way of chemical reaction, while the primary function of a DPF is to filter out soot by way of mechanical process. While, under certain circumstances, a DPF performs — as a collateral effect — some of the functionality of the DOC, the full oxidation effect cannot be achieved without the installation of both devices. Even the coated DPF that uses the substrate produced by IBIDEN HU does not have the full functionality of a DOC, since it only serves the purpose of providing sufficient temperature for the burning-off the soot, but it does not have the same purification effect as a full-function DOC. They indicate that, according to the expectations of many car manufacturers and automotive suppliers, a DOC and a DPF will remain separate devices installed next to each other in the gas exhaust line.

([20]) Differences in the intended use between the end products, DPF and DOC, are a reflection of the different uses of their respective substrates.

4.2.2. *No supply side substitution*

(55) Further, Saint-Gobain and the party with withheld identity also indicate that the production process of the DOC and DPF substrates are very different: the non porous cordierite used for the DOC substrate is sintered in the air at 400 °C temperature. While silicon carbide, the material used for a DPF substrate (which is also the material of IBIDEN HU's substrate), must be prepared at very high temperature (above 2 000 °C) in the oxygen free atmosphere. This difference of temperature alone is so vital that one of the most essential and costly production elements cannot be used to produce both types of product.

(56) Further, a substrate for the DOC is always a single block honeycomb cylinder, the channels of which are not plugged. A substrate for the DPF is normally formed by gluing several filtering elements, and channels of the DPF are plugged. For the manufacture of DPF substrates a non-oxide high temperature sintering furnace, gluing and plugging equipment are needed, which are not necessary for the production of substrates for DOC. Thus, the interested parties argue that it is not possible to produce DPF on the DOC's production lines or vice versa.

5. **COMMENTS FROM THE HUNGARIAN AUTHORITIES**

(57) The Hungarian authorities support the view of Aerosol & Particle Technology Laboratory and IBIDEN Hungary Gyártó Kft. in relation to the relevant product, market, price, demand side and supply side specificities.

(58) According to the Hungarian authorities, modern diesel emission control is based on the integration of different functionalities at system level. The close interdependency of all sub-units (such as DOC and DPF) in a diesel emission control system, has led to multi-player supply-chains, linking substrate, coating and exhaust system manufacturers, and the performance characteristics of each individual sub-unit create challenges to the entire supply-chain. Therefore the diesel emission control system or diesel after-treatment system should be defined as the relevant product.

(59) They also argue that the product of IBIDEN HU is a multifunctional part fitted into the exhaust pipe system. The combination of this product and a DOC creates the third generation after-treatment device. Furthermore, the product of IBIDEN HU is a semi-finished product due to the fact that it will be coated at a further level. Without coating the product is not fully-functional and may not be classified as a finished product in terms of third-generation DPF. This is also supported by the fact that the final product is much more expensive than IBIDEN HU's semi-finished product: currently the market price of the final device is 2,5 times higher than that of the filter produced by IBIDEN HU.

(60) Further, the Hungarian authorities indicate that, in practice, DPFs are installed in most diesel-engine cars, and manufacturers that need a DOC also need a DPF. The demand creates a common market for the products, as the same manufacturers use the same methods, infrastructure and efforts to obtain the products. On the supply side, DOC and DPF manufacturers usually use the same manufacturing processes, production technology and materials. In terms of materials, both DOCs and DPFs use cordierite. In production they undergo the same processes, such as material preparation, mixture, tempering, and moulding, drying, finishing and firing. The only differences between the production process of the two products are an extra stage (plugging) and the rescheduling of another stage (cutting). Consequently, the same manufacturers will be involved with supply, and DOC and DPF compete with each other in the exhaust gas after-treatment market.

(61) The Hungarian authorities emphasize that IBIDEN HU is able to produce substrates for particulate filters with the same equipment without any significant investment, as any manufacturer with the same production technology could. As the DPF is a form of developed DOC, the cost of the modification is not an initial investment in another product line, but an essential development of production assets.

(62) In addition, the Hungarian authorities indicate that a clear trend can also be seen in the technological development of DOC and DPF, which is leading to a new generation of filters which could incorporate the advantages, characteristics and former technologies in one unit, thereby combining a DOC and a DPF. When defining the relevant market and calculating the market share, the DOC should also be taken into account as it constitutes a combined after-treatment device with a DPF, and together they ensure compliance with the regulations.

(63) In view of the above arguments, the Hungarian authorities consider that the only supportable definition of the relevant market is the whole diesel after-treatment devices market, including both DPF and DOC. According to the study prepared by an independent market research company AVL, IBIDEN's market share in the diesel after-treatment devices market remains below 25 % both before and after the investment, thus, fulfilling the condition in paragraph 24(a) of MSF 2002. Therefore, the Hungarian authorities consider that the Commission should terminate the Article 88(2) procedure by a positive decision.

6. **ASSESSMENT OF THE AID**

6.1. **Existence of State aid in the meaning of Article 87(1) of the EC Treaty**

(64) In the Decision to initiate the formal investigation procedure, the Commission concluded that the financial support given by the Hungarian authorities to IBIDEN Hungary Gyártó Kft. on the basis of the existing regional aid schemes (HU 1/2003 'Earmarked Scheme for Investment Promotion' and N 504/2004 'Development Tax Benefit') in the form of a grant and a tax credit constitutes State aid within the meaning of Article 87(1) of the EC Treaty. The Hungarian authorities have not contested that conclusion.

6.2. **Notification requirement, legality of the aid, and applicable law**

(65) By notifying the measure in 2006, the Hungarian authorities complied with the individual notification requirement of paragraph 24 of the MSF 2002.

(66) In line with paragraph 63 and footnote 58 of the Guidelines on national regional aid for 2007-2013 ([21]), the Commission assessed the aid measure under the provisions of the Guidelines on national regional aid 1998 (hereafter: RAG) and the MSF 2002.

6.3. **Compatibility of the aid with the RAG**

(67) In the Decision to initiate the formal investigation procedure, the Commission indicated that the aid is granted in conformity with the existing regional aid schemes ([22]) and concluded that the standard compatibility criteria laid down in the RAG (such as compatibility criteria concerning initial investment in the region eligible for regional aid, eligible costs, own contribution, incentive effect, maintenance of the investment, cumulation) are respected.

([21]) OJ C 54, 4.3.2006, p. 13.
([22]) HU 1/2003 'Earmarked Scheme for Investment Promotion' and N 504/2004 (ex HU 3/2004) 'Development Tax Benefit Scheme'.

6.4. **Compatibility of the aid with the MSF 2002 provisions**

6.4.1. *Single investment project*

(68) Paragraph 49 of the MSF 2002 states that an investment project should not be artificially divided into sub-projects in order to escape the provisions of the framework. A 'single investment project' includes all the fixed investments on a production site in a period of three years ([23]). A production site is an economically indivisible series of fixed capital items fulfilling a precise technical function, linked by a physical or functional link, and which have clearly identified aims, such as the production of a defined product.

(69) As IBIDEN HU already received regional aid in the past for the first phase of the investment project on the same location and as the notification refers to the second phase of the investment project, it is necessary to establish whether the two phases form part of the same single investment project.

(70) In this regard the Commission observes that the two investment phases concern the same production site (the Dunavarsány Industrial Park, the region of Central Hungary), the same company (IBIDEN HU), the same product (ceramic substrates for Diesel Particulate Filters) and the start of works on each project were commenced within a period of three years (the first phase started in 2004, while the second phase started in 2005). Consequently, the Commission considers that the criteria of the definition of a 'production site' in paragraph 49 of the MSF 2002 are fulfilled and that the two phases of the investment form part of the same single investment project.

(71) In addition, the Commission observes that the Hungarian authorities agree that the two phases of the investment by IBIDEN HU in the Dunavarsány Industrial Park have to be considered as a single investment project.

6.4.2. *Aid intensity*

(72) As the first and second phases of the investment are considered to form a single investment project, they both are taken into account to calculate the maximum aid intensity of the project.

(73) Given that the planned eligible expenditure in present value is HUF 41 953 072 670 (EUR 168,30 million) and the applicable standard regional aid ceiling is 40 % (NGE), the adjusted maximum aid intensity in NGE resulting from the scaling down mechanism of paragraphs 21 and 22 of the MSF 2002 is 23,34 %.

(74) Since the aid intensity for the project is 22,44 % NGE and thus is below the maximum aid intensity allowed under the scaling down mechanism (23,34 % NGE), the proposed intensity of the overall aid package complies with the adjusted regional aid ceiling.

6.4.3. *Compatibility with the rules under paragraphs 24(a) and (b) of the MSF 2002*

(75) Since the total aid amount of HUF 9 793 809 933 (EUR 39,29 million) in present value exceeds the individual notification threshold of EUR 30 million, the compliance of the notified aid with paragraph 24(a) and (b) of the MSF 2002 has to be assessed.

(76) The Commission's Decision to allow regional aid to large investment projects falling under paragraph 24 of the MSF 2002 depends on the market share of the beneficiary before and after the investment and on the capacity created by the investment. To carry out the relevant tests under paragraph 24(a) and (b) of the MSF 2002, the Commission has first to identify the product(s) concerned by the investment, and to define the relevant product and geographic markets.

6.4.3.1. Product concerned by the investment project

(77) According to paragraph 52 of the MSF 2002, 'product concerned' means the product envisaged by the investment project and, where appropriate, its substitutes considered to be such, either by the consumer (by reason of the product's characteristics, prices and intended use) or by the producer (through flexibility of the production installations). When the project concerns an intermediate product and a significant part of the output is not sold on the market, the product concerned will be deemed to include the downstream products.

(78) The notified project concerns the production of '*ceramic substrates for diesel particulate filters (DPF)*'. DPF is an automotive part, which is fitted into the exhaust gas treatment system of diesel engine vehicles and which cleans the exhaust gas generated by engine combustion ([24]).

([23]) Because investment projects may continue over several years, the three year period is calculated, in principle, from the start of works on each project.

([24]) DPF is not yet required by the current European legislation, but is already installed in certain motor vehicles. From September 2009 onwards, new limit values will become mandatory for new types of diesel passenger cars (category M_1) and light duty commercial vehicles (category N_1 class I) with a reference mass not exceeding 2 610 kg (these limits will apply for classes II and III of N_1 and N_2 vehicles as from September 2010). This will in practice result in the instalment of DPFs in order to fulfil the limit values.

(79) The ceramic part, which is produced by IBIDEN HU, is an intermediate product. After having produced it in the factory (TIER 3), it is sold under market conditions through IBIDEN Deutschland GmbH ([25]) to independent companies (the main customers are […], […] and […]), which perform the precious metal coating of the substrate, and thus the DPF becomes a coated DPF (TIER 2). The coated DPFs are then sold to exhaust manifold producers (TIER 1), which are the direct suppliers of car assembly factories. The end users of ceramic substrates are diesel passenger cars and light duty trucks.

(80) No other products for sale on the market or use by other IBIDEN Group's plants will result from the investment project. The Hungarian authorities confirmed that no other products than those notified and assessed will be produced at the aided facility for five years after the end of the project/full production.

(81) Following the above, the Commission will consider the ceramic substrate for DPF, which is installed in diesel passenger cars and light duty trucks as the product envisaged by the investment project.

6.4.3.2. Relevant product and geographic markets

(82) The definition of the relevant product market requires the examination of what other products could be considered as substitutes to the product envisaged by the investment project within the meaning of paragraph 52 of the MSF 2002. In this regard and, having taken into account the comments from the interested parties and the Hungarian authorities, the Commission has looked which products could be considered as substitutes for DPF. The summary of this analysis is presented below.

1. ***General overview of the exhaust gas treatment system***

(83) Emission reduction is a complex area with many inter-actions between technologies, impact on fuel economy, driving performance, durability and costs. Emission reduction measures can be divided into two main areas:

(a) combustion system developments to reduce engine-out emissions; and

(b) emission control technologies using 'after-treatment' of engines exhaust gas (only the latter is relevant for the present case).

(84) The exhaust gas of diesel engines contains hazardous substances: significant amounts of particulate matter ('PM', such as soot and Soluble Organic Fraction (SOF) ([26])), and hazardous gases (such as hydrocarbons (HC), carbon oxides (CO_x), nitrogen oxides (NO_x)). These materials are treated by the *exhaust gas treatment system* installed in vehicles.

(85) Accordingly, there are certain components within the system which clean hazardous substances. In general, these can be devices: (1) which clean the gas components and (2) which clean the particulate matter (including soot). The following two emission after-treatment devices, which are relevant for the present case, are used in diesel passenger cars and light duty trucks:

(a) 'DOC' — Diesel Oxidation Catalyst, which is intended to suppress hazardous gases (mainly hydrocarbons (HC), carbon oxides (CO_x)) and, as a collateral effect, it also eliminates to a certain extent SOF (soluble organic fraction of particulate matter), but which cannot treat soot. A DOC, similarly to a DPF, is composed of an inner-solid substrate through which the exhaust gases are channelled. When flowing through the channels, the exhaust gas enters into chemical reactions with the catalysers (platinum and palladium) deposited on the wall of the substrate. Since 2000 DOCs have been introduced in practically all diesel passenger car models in EEA in order to comply with more stringent emission norms, with regard to the limits of harmful gases in the emissions.

(b) 'DPF' — Diesel Particulate Filter, which is intended to retain the insoluble fractions of the particulate matter, *i.e.* soot. This is achieved by mechanical filtering. The exhaust gas flows into the channels of the DPF honeycomb structure and is forced to flow through the walls since the channels are alternatively plugged. The substrate serves as a filter and the soot is deposited on its walls. However, the DPF becomes saturated with soot and in order for it to remain functional the soot needs to be eliminated by burning it (regeneration of the filter).

([25]) The Hungarian authorities confirmed that IBIDEN Deutschland GmbH is a trade and marketing company, and it does not produce exhaust gas treatment parts. No other IBIDEN Group's company carries out any further processing on the parts produced by IBIDEN HU.

([26]) SOF: soluble organic fraction like organic material derived from engine lubricating oil and from fuel.

(86) DPFs first appeared in series production in 2000 in the Peugeot 607 diesel car and have since become more and more widespread, witnessing a tremendous growth in the last 3-4 years. This growth is due partly to the tax incentives offered on diesel vehicles equipped with DPFs in several countries, partly to the more environmental conscious approach of the consumers, and also to the anticipation of tightening emission norms, notably, with regard to PM limits (in the EEA emission reduction is regulated by the 'Euro' emission standards). It is expected that before Euro 5 ([27]) comes into effect in 2009, an increasing share of diesel cars will already be equipped with DPF. This trend will ensure a further expanding market for DPFs in the coming years.

(87) Different types of DPFs can be distinguished on the basis of the material of the filter (for instance, ceramic, cordierite or metal) and the filter regeneration strategy. Regeneration is necessary in order to eliminate (*i.e.* burn-off) the accumulated particles. In practice this is achieved either through an additive mixed with the fuel which lowers the oxidation temperature (the latter is known as an 'uncoated DPF with fuel borne catalyst') or through a precious metal coating covering the walls of the substrate which helps in the burn-off process (the latter is referred to as a 'coated DPF' or as an 'impregnated catalysed DPF').

(88) Due to the precious metal coating, this type of coated DPF also treats, to a limited extent, HC and CO gases by way of a chemical oxidation process. IBIDEN HU's product belongs to this category. It is a ceramic substrate which is subsequently coated at TIER 2, and then integrated into the exhaust manifold system at TIER 1.

2. ***The definition of the relevant product market following the interested parties' and Hungarian authorities' comments***

(89) In the Decision to open the formal investigation procedure, the Commission expressed several doubts, which have been summarised above, whether DOC and DPF can be considered as substitutes, which belong to the same relevant product market.

(90) The Commission considers that the arguments put forward by the aid beneficiary IBIDEN HU, the interested party Aerosol & Particle Technology Laboratory and by the Hungarian authorities do not dispel the initial doubts of the Commission, which were confirmed by the comments of Saint-Gobain and the interested party whose identity is withheld. In particular the Commission observes the following:

(91) The substrates of DPF and DOC do not belong to the same relevant product market as their product characteristics are different, as a consequence of which there is neither demand side nor supply side substitution between the two products.

(92) From the demand side perspective, the Commission observes that there are significant differences in product characteristics, intended use and price between substrates for DPF and substrates for DOC:

(a) As demonstrated by the interested parties, the substrates for DOC are mostly made of the non-porous cordierite. The material used for the DOC substrate must resist an internal temperature of approximately 400 °C present inside the DOC. The reference material used for the substrates for DPF is silicon carbide. The DPF substrate must be porous in order to ensure the soot filtration. Due to the necessary regeneration of DPF, the substrate must be made of material resisting to very high temperatures (approximately 1 000 °C in case of a coated DPF) and to repeated thermal shocks. Thus, due to their different thermal characteristics, customers will be unable to switch between substrates for DPF and substrates for DOC in the event of price increase for one of the products.

(b) As far as the price is concerned, the Commission supports the view of Saint-Gobain and the interested party with withheld identity in this regard and observes that there is a big price difference between substrates of DOC and DPF, since the materials used for the substrates for DPF are higher performance materials whose production implies higher costs (for example, the use of a non-oxide high temperature sintering furnace is required). According to the submission from the interested parties, the average price per unit of the substrate for DPF ranges between EUR 120-180 (without the cost of the catalyst coating and the canning cost), whereas the price of the substrate for DOC ranges between EUR 12 and EUR 20 (also without the cost of the catalyst coating and the canning cost). Such a price difference indicates that substrates for DPF do not belong to the same market as substrates for DOC, because DPF TIER 2 manufacturers cannot switch to purchasing a DOC substrate for technical reasons (otherwise they would do so because of a big price difference) and a DOC producer would not substitute a DOC substrate with a DPF substrate as s/he would get a more expensive product without an oxidation function comparable to a DOC substrate.

([27]) Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p. 1).

(c) As far as the intended use is concerned, on the basis of the submissions from the interested parties, the Commission observes that the primary purpose of a DOC is to oxidise certain gases contained in the diesel exhaust into less harmful substances by way of a chemical reaction. The primary function of a DPF is to filter out soot by way of a mechanical filtering process. While, under certain circumstances, a DPF performs — as a collateral effect — some of the functionality of the DOC, the full oxidation effect cannot be achieved without the installation of both devices. Moreover, a DOC device does not fulfil any functionality of a DPF, as it does not filter soot. According to the expectations of car manufacturers and automotive suppliers, DOC and DPF will remain separate devices installed next to each other in the gas exhaust line ([28]).

(d) The oxidation performed by the catalysts of IBIDEN HU DPF substrate serves the purpose of providing sufficient temperatures for the burning of the soot, but it does not have the same purification effect as a full-function DOC. As has been pointed out in the submissions from the interested parties, the so-called multi-functional product by IBIDEN HU does not eliminate the need for a separate DOC in the exhaust gas treatment system. The Hungarian authorities and the aid beneficiary also admit that, due to the current legislation, IBIDEN HU's so-called multi-functional product still needs to be installed together with the DOC.

(e) The Commission observes that the belief expressed by the IBIDEN HU and the Hungarian authorities concerning the tendency to use a combined single solution (of DOC and DPF) might reflect the future trend of the emission control technologies, however, it does not reflect the current situation, which is subject to the Commission's analysis. Thus both DPF and DOC will continue to co-exist and will be installed together in the period to be considered (from 2003 to 2008 *i.e.* one year before the start of and one year after full completion of the investment project). As illustrated by market data estimates in one of the studies, DOCs remain the major emission control component to be installed in all diesel cars in the period concerned. The study also confirms that for future Euro 5 and Euro 6 technologies DOCs will continue to be used for oxidation of CO, HC and SOF.

(f) In addition, the Commission observes that the market study by Frost & Sullivan, which is an independent industry consultant and researcher, analyses only DPF as a stand alone product to treat particulate matter and it does not refer to DOC.

([28]) This trend, as illustrated by Saint-Gobain, is underlined by the various presentations given during various expert forums in 2007 by General Motors, DaimlerChrysler, Johnson Matthey, Hyundai and Arvin Meritor.

(93) Further, from the supply side perspective, there are differences in the production processes of the DOC and DPF substrates. Since the DPF substrate must have high temperature resistance, the material (mostly silicon carbide) must be prepared at very high temperatures and under oxygen free atmosphere. The cordierite which is predominantly used for the DOC substrate is sintered in the air and at relatively much lower temperature. Moreover, the substrate for DOC is a single block honeycomb cylinder whereas the DPF substrate is formed by gluing several filtering elements and the channels of the DPF are plugged, which is not the case for DOC. It follows then that the production of the DPF substrate necessitates a non oxide high temperature sintering furnace, gluing system and plugging machines and these equipments are not necessary for the production of the DOC substrate. It appears therefore that it is not possible to produce DPF and DOC substrate on the same production lines without significant additional costs.

(94) As regards, the argument put forward by IBIDEN HU and the Hungarian authorities that there are manufacturers that produce both DOC and DPF and that the distinction between DOC manufacturers and DPF manufacturers is thus blurred, the Commission considers that it is not relevant whether the same manufacturer can produce or not both products. What is relevant is whether the same equipment can be used for the production of both substrates without significant additional costs. This was not demonstrated by the interested parties or the Hungarian authorities. Notably, no concrete evidence of DOC substrate producers, which would produce substrates for DPFs with the same equipment without major additional investment costs, or vice versa, was provided.

(95) In view of the above-mentioned arguments, the Commission considers that although a DOC and a DPF belong, together with the other components (for instance, Lean NO_x Trap, the purpose of which is to reduce the NO_x in the exhaust gas) to a diesel passenger car's or light duty truck's after-treatment/diesel emission control system, the mere fact that they exist next to each other in the same exhaust line or influence each other's development does not make them substitutes from the demand side and/or supply side viewpoint, as these are two separate components with different characteristics, prices and intended use. Moreover, as regards substitutability on the supply side, there are differences in the production processes of the DOC and DPF substrates, leading to the conclusion that there is no substitutability between DOC substrates and DPF substrates on the supply side.

(96) On the basis of the above and for the purpose of this Decision, the Commission considers that the relevant product market covers only substrates for Diesel Particulate Filters to be fitted in the exhaust systems of diesel passenger cars and light duty trucks.

3. ***Relevant geographic market***

(97) In the Decision to initiate the formal investigation procedure the Commission considered that the relevant geographical market should be EEA-wide due to the differences in emission regulation and fuel quality standards compared to third countries and the lower share of diesel vehicles in other major automotive markets ([29]). At present demand seems to be very low for after-treatment devices for diesel light duty vehicles in markets other than EEA. With the development of more advanced after-treatment devices for diesel vehicles, which will then be able to meet the requirements regarding exhaust-gas emission in some third countries, the market for after-treatment devices is expected to expand geographically only after 2008.

(98) None of the interested parties or the Hungarian authorities have contested this conclusion. On the basis of the above and for the purpose of this decision, the Commission considers that the relevant geographical market for DPF is EEA-wide.

6.4.3.3. Market share

(99) According to paragraph 24(a) of the MSF 2002, an individually notifiable investment project will not be eligible for investment aid if the aid beneficiary accounts for more than 25 % of the sales of the product concerned before the investment or will, after the investment, account for more than 25 %.

(100) To examine whether the project is compatible with paragraph 24(a) of the MSF 2002, the market share of the aid beneficiary at group level before and after the investment has to be analysed. As the investment of IBIDEN HU started in 2004 and the full capacity production of 2,4 million units per year was expected to be achieved in 2007, the Commission examined the market shares in 2003 and 2008.

(101) The Hungarian authorities confirmed that there are no joint-ventures and long-term marketing arrangements between IBIDEN and other companies in the ceramic division.

(102) The Hungarian authorities have provided market data from the following sources: Frost & Sullivan Ltd. and AVL List GmbH. The market shares of IBIDEN Group on DPF market before the start and after completion of the project in volume terms for Europe are given in Table III below.

Table III

Market share of IBIDEN at group level in Europe

(Data in units)

	2003	2008
Sales by IBIDEN group	[…]	[…]
Total DPF market	702 000	6 340 000
Share in DPF market	[…] %	[…] %

Source: Frost & Sullivan Ltd. ([30]).

(103) The studies submitted by the Hungarian authorities demonstrate that the market share of IBIDEN at Group level in the DPF market both before and after the investment amounts to […] % — […] % in Europe in volume terms ([31]) and therefore substantially exceeds the 25 % threshold ([32]). Thus the condition in paragraph 24(a) of the MSF 2002 is not respected.

([29]) According to the market study by AVL, modern exhaust after-treatment systems need sulphur free diesel fuel to ensure effective and durable performance. Low sulphur diesel fuel was introduced in the EU in 2005 and will be mandatory in 2009.

([30]) Data compiled by AVL reflect a somewhat smaller market than F&S and would result in inconsistencies as the volume of the beneficiary's sales in Europe before the investment (*i.e.* in 2003) is higher then total sales estimated by AVL. Therefore for the DPF market figures contained in the F&S study were used where no such inconsistencies arose. Moreover, taking the higher F&S data is in favour of the beneficiary, but even in this scenario, market shares are well above 25 %. The F&S study directly refers to the number of DPFs sold or expected to be sold on the market taking into account all manufacturers of DPFs. It should also be noted that although the studies refer to DPF, *i.e.* the ready-made downstream product, in practice the volume of substrates sold equals the number of DPFs sold.

([31]) IBIDEN HU's ceramic substrate is an intermediary product which is subject to further processing (*i.e.* coating, canning) at subsequent levels of the value chain (carried out by independent companies). Since data in value terms contained in the submitted studies refer only to the ready made DPF whose price is substantially higher that that of IBIDEN's product, and since no reliable data has been submitted as regards the price of the intermediary product, the Commission considers that in the case at hand, analysis in volume terms should be used. In any event, if IBIDEN sells DPF substrates at close to the average market price, market shares in value terms would be comparable.

([32]) According to data provided by Saint-Gobain, even in a hypothetical market comprising substrates for both DPF and DOC (DPF + DOC market), IBIDEN's market share is above 25 % in value terms in the EEA. However, this argument is not confirmed by the AVL study (which was commissioned by the beneficiary), as it indicates substantially higher prices of DOCs and thus a market share in value terms remains below 25 % in the combined market (however, as regards the market price of the DOC as provided in the AVL study, it would seem that this refers to the DOC price after coating at TIER 2, which would explain the significantly higher price compared with the one indicated for the substrate by Saint-Gobain). Therefore, on the basis of the available information it cannot be concluded whether in such a hypothetical market IBIDEN's market share would be above or below 25 % in value terms in the EEA.

6.4.3.4. Production capacity increase/Growing market test

(104) Paragraph 24 of the MSF 2002 provides that individually notifiable projects will not be eligible for investment aid if one of the conditions stipulated in paragraph 24 is not fulfilled. Although, as indicated above, the condition in paragraph 24(a) of the MSF 2002 is not respected, the Commission has also examined whether the investment project complies with another condition stipulated in paragraph 24(b) of the MSF 2002. According to paragraph 24(b) of the MSF 2002, the individually notifiable investment project will not be eligible for investment aid if the capacity created by the project is more than 5 % of the size of the market measured using apparent consumption data of the product concerned, unless the average annual growth rate of its apparent consumption over the last five years is above the average annual growth rate of the European Economic Areas's GDP over the same period.

(105) In this context the Commission observes that, as shown in Table IV below, the average annual growth of the apparent consumption (measured as total sales) in Europe of DPF over the last five years is substantially above the average annual growth rate of the EEA's GDP ([33]).

Table IV

Growing market test

(Sales in units)

	2001	2002	2003	2004	2005	2006	CAGR (*)
DPF	29 000	290 000	702 000	1 169 000	1 791 000	2 957 000	152,17 %
GDP (millions of EUR in constant 1995 prices) (EU 27)	8 197 605,0	8 295 193,5	8 402 482,6	8 610 427,6	8 765 680,7	9 027 663,9	1,95 %

(*) CAGR: Compound annual growth rate.

(106) Consequently, the Commission concludes that the aid under scrutiny is in conformity with paragraph 24(b) of the MSF 2002, however, as shown above, the aid is not in conformity with paragraph 24(a) of the MSF 2002.

6.5. **Negative effects of the aid and conclusion**

(107) In accordance with the rules on regional aid, aid amounting to HUF 7 411 828 735 (EUR 29,73 million) in present value (HUF 11 745 422 640 or EUR 47,12 million in nominal value) had already been granted to IBIDEN HU on the basis of the existing regional aid schemes ([34]) up to the individual notification threshold established in paragraph 24 of the MSF 2002. The aid amount, which is subject to the present notification, is the difference between the total amount of aid and the support already granted, *i.e.* HUF 2 381 981 198 (EUR 9,56 million) in present value (in nominal value this amount is HUF 3 845 801 110 or EUR 15,43 million).

(108) Paragraph 24 of the MSF 2002 provides that individually notifiable projects will not be eligible for investment aid if one of the conditions stipulated in paragraph 24 is not fulfilled. As demonstrated above, the aid under the scrutiny does not comply with paragraph 24(a) of the MSF 2002 because the market share of IBIDEN at group level in the DPF market in Europe both before and after the investment substantially exceeds the 25 % threshold.

([33]) For practical reasons, EU-27 GDP figures were considered.
([34]) HU 1/2003 'Earmarked Scheme for Investment Promotion' and N 504/2004 (ex HU 3/2004) 'Development Tax Benefit Scheme'.

(109) The high market share of IBIDEN reflects the prevailing position of the company in the DPF market. According to the study by Frost & Sullivan Ltd (F&S) ([35]) and comments provided by the interested parties, IBIDEN enjoys an outstanding position in the European market for DPF, as it is one of the two major filter substrate manufacturers in the world (the other main manufacturer being NGK). The Commission observes that the DPF market in Europe has experienced tremendous growth over the last years, as all vehicle manufacturers adopt the technology to meet the Euro emission limits. It is a highly profitable market the future strong development of which also seems to be secured. The aid subject to the notification would even more strengthen the leading position of IBIDEN in this market, making it more difficult for new entrants to consolidate their position in this market. The aid subject to the notification is thus susceptible to create substantial distortion of competition.

(110) On the basis of the foregoing considerations, the Commission concludes that the aid subject to the notification is not compatible with the common market. As the aid of HUF 2 381 981 198 (EUR 9,56 million) in present value (in nominal value this amount is HUF 3 845 801 110 or EUR 15,43 million) has not been granted, there is no need for its recovery,

HAS ADOPTED THIS DECISION:

Article 1

The State aid which the Republic of Hungary is planning to implement for IBIDEN Hungary Gyártó Kft. amounting to HUF 2 381 981 198 in present value (HUF 3 845 801 110 in nominal terms) is incompatible with the common market.

The aid may accordingly not be implemented.

Article 2

The Republic of Hungary shall inform the Commission, within two months of notification of this Decision, of the measures taken to comply with it.

Article 3

This Decision is addressed to the Republic of Hungary.

Done at Brussels, 30 April 2008.

For the Commission
Neelie KROES
Member of the Commission

([35]) 'Strategic analysis of the European market for Diesel Particulate Filters', October 2006. The firm Frost & Sullivan is active in market/industry consulting and research.