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PUBLIC VERSION

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In the published version of this decision, some information has been omitted, pursuant to articles 24 and 25 of Council Regulation (EC) No 659/1999 of 22 March 1999 laying down detailed rules for the application of Article 93 of the EC Treaty, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...].

PUBLIC VERSION

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Subject: **State aid SA.41884 (2015/N) – Germany**
Evaluation plan- Central Innovation Programme for SMEs (*Zentrales Innovationsprogramm Mittelstand ZIM 2015*)

Sir,

1. PROCEDURE

Seiner Exzellenz Herrn Frank-Walter STEINMEIER
Bundesminister des Auswärtigen
Werderscher Markt 1
D - 10117 Berlin

- (1) By electronic notification of 13 May 2015, Germany submitted a summary information sheet pursuant to Article 11(a) of Commission Regulation (EU) No. 651/2014 declaring certain categories of aid compatible with the internal market in application of the Article 107 and 108 of the Treaty¹ (hereinafter "GBER") concerning the Central Innovation Programme for SMEs (hereinafter: "the scheme") which was put into effect on 14 April 2015.
- (2) The aid scheme, with an average annual budget exceeding EUR 150 million constitutes a large scheme in the meaning of Article 1(2)(a) of the GBER. Under this provision, aid schemes are exempted only for a period of six months after their entry into force, unless a longer period of exemption is authorised by the Commission following the assessment of an evaluation plan for the scheme to be notified by the Member State concerned.
- (3) To obtain that prolongation, Germany notified an evaluation plan for the scheme on 13 May 2015, which was registered by the Commission under SA.41884 (2015/N). By letter of 24 June 2015 the Commission asked for supplementary information, provided by Germany on 22 July 2015. The Commission considered the information submitted still not sufficient to take the final view on the submitted evaluation plan and asked Germany for additional information by letters of 13 August, 21 and 30 September 2015. Germany replied to these requests on 16 September 2015, 23 September 2015 and 1 October 2015.
- (4) By e-Mail dated 25 September 2015, Germany agreed to waive the rights conferred upon it by Article 342 TFEU and Article 3 of the Regulation (EC)1/1958² and to have the present decision adopted and notified in English language.

2. DETAILED DESCRIPTION OF THE KEY ELEMENTS OF THE NOTIFIED EVALUATION PLAN

- (5) As required by Article 2(16) of the GBER and in line with best practices recalled in the Commission Staff Working Document on Common methodology for State aid evaluation³ (hereinafter: "Staff Working Document"), the notified plan contains the description of the following main elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the data collection requirements, the proposed timing of the evaluation including the date of submission of the final evaluation report, the description of the criteria that will be used for the selection of the independent body conducting the evaluation and the modalities for ensuring the publicity of the evaluation.

i) Description of the aid scheme to be evaluated

¹ 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.

² Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385).

³ Commission Staff Working Document on Common methodology for State aid evaluation, Brussels, 28.5.2014, SWD (2014) 179 final.

- (6) The scheme is one of the key instruments of innovation policy in the Federal Republic of Germany. In July 2008 the scheme consolidated the PRO INNO II⁴, INNO-WATT⁵ and INNO-NET⁶ funding aid schemes. Although the funding conditions have been amended several times since then⁷, the scheme's basic character remained largely the same: first and foremost, the scheme supports small and medium-sized enterprises (SMEs)⁸ and other middle-sized enterprises⁹. engaged in market-oriented research and development projects (R&D projects) with the help of non-repayable grants. As the scheme is open to all kinds of technology and sectors, it targets a large number of beneficiaries, each receiving a relatively small amount of financial aid. Under the new guidelines, too, the number of R&D projects is expected to remain in the region of several thousand per year. The maximum grant amount per enterprise and project is limited to EUR 210 000, with the average grant expected to be little more than half of this amount.
- (7) The different support measures are operationalised under the scheme using various types of projects:
- Independent undertakings working on specific technology projects with their own human resources are supported in the framework of individual R&D projects. The projects generally last approximately two years.
 - The category of R&D collaboration projects comprises two different types: collaboration between at least two undertakings or at least one undertaking and one research organisation. The nature of the projects is similar to that of individual R&D projects: clearly defined projects with a clear division of labour that pursue a specific technological objective within a relatively short time frame.
 - The support of collaboration networks, consisting of at least six SMEs plus any research partners and other partners, helps undertakings by supporting them through a funded network management organisation. In addition to providing indirect support for undertakings, these network enterprises and research organisations carry out R&D projects in a competitive manner in the framework of the aforementioned types of projects.

⁴ OJ C 67 of 17.3.2004, p. 9.

⁵ OJ C 76 of 28.3.2003, p.28.

⁶ OJ C 76 of 28.3.2003, p. 28.

⁷ The last amendment was made when the current guidelines entered into force on 15 April 2015, which included changes to the funding rates for different types of projects. Important changes in the past included the temporary extension of the target group to include companies with up to 1 000 employees and the significant budget increase of the scheme in the framework of the German Government's Economic Stimulus Package to overcome the economic crisis of 2009/10.

⁸ As defined in the Annex I of the Commission Regulation (EU) Nr. 651/2014 of 17 June 2014 declaring some categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 187, p. 1.

⁹ Enterprises, including their partner and linked enterprises, which at the time of grant employ less than 500 employees and which have an annual turnover not exceeding EUR 50 million or an annual balance sheet not exceeding EUR 43 million.

- SMEs can also, in addition to the funded R&D projects, apply for funding for services and consultation related to marketing activities.
- (8) The annual budget of the scheme for the period until 31.12.2019 is EUR 543 Mio. The national legal basis of the scheme is the programme's Guidelines "*Zentrales Innovationsprogramm Mittelstand (ZIM)*"¹⁰ (hereinafter: "ZIM Guidelines"). The scheme is implemented by several projects promoters.
- (9) The majority of the funds available under the scheme is used for R&D projects, with collaborative R&D projects accounting for a much larger part than individual R&D projects. On the other hand, the support for network management and for advisory services related to marketing activities plays only a minor budgetary role.

ii) *Objective and expected impacts of the aid scheme to be evaluated*

(10) According to the German authorities, the logic behind the scheme's intervention is closely linked to its objectives. The ZIM Guidelines state that the scheme's aim is 'to sustainably increase the innovative capacity and competitiveness of SMEs, including craft businesses and independent professions, and in doing so contribute to their growth and the generation of new jobs'. The scheme, therefore, focuses on supporting innovative capacity in enterprises, which should ultimately have a positive influence on competitiveness, growth and jobs.

(11) These scheme's general objectives are made up of more specific objectives, as laid down in the guidelines. The subsidies are designed to contribute to

- reducing the projects' technical and economic risks associated with R&D;
- providing incentives for undertakings to put more effort into market-oriented R&D and technological innovations;
- strengthening the collaboration between undertakings and research organisations and improving technology transfers, as well as increasing commitment to R&D collaborations and participation in innovation networks;
- swiftly turning R&D results into effective market innovations;
- improving innovation, collaboration and network management in SMEs.

iii) *Constraints and possible risk affecting the scheme's objectives and expected impact*

(12) Firstly, it should be mentioned that evaluations of the scheme have to address the fact that the scheme is very broad, not only offering various types of funding but also addressing a very broad range of different projects for all kinds of technology and sectors. It is therefore to be assumed that the funding effects are heterogeneous. As average effects only account for a part of the whole range of impacts, the evaluation should, where possible, analyse potentially heterogeneous impacts of the scheme for example with regard to different types of undertakings (size, R&D&I intensity) or regions (e.g. East or West Germany) and according to the different types of projects.

¹⁰ BAnz AT 05.05.2005 B1, p. 1-23.

- (13) In addition, the German authorities stress that R&D projects require more time to show any impact than other kinds of investment projects. The duration of projects funded under the scheme is typically around two years during which the aid will be paid in instalments. Although the scheme is an application-oriented R&D programme, follow-up work is often needed before the technological innovation can be converted into marketable results, for example where prototypes need to be developed further until they are ready for mass production or where certification processes are required. It usually takes years before undertakings can reap the benefits in terms of sales and even more time is needed until the innovations reach their full market potential. Although national evaluations of previous schemes have shown, according to the German authorities, that many projects lead to exploitable results relatively quickly because of their close proximity to applied science, it has to be assumed that long-term impacts (in terms of revenue and job creation) will not come to fruition until four to six years after the end of the project, i.e. six to eight years after the project's start. With regard to effects at output level (e.g. R&D spend by the undertakings, R&D collaboration behaviour) the expected time delay is considerably less.
- (14) Other aspects relevant to the evaluation include the fact that small enterprises (10-49 employees) make up the highest portion of the funded projects, but micro-enterprises (< 10 employees) also account for a significant part, i.e. around 20 %, of the beneficiaries.

iv) *Evaluation questions and result indicators*

- (15) The evaluation will mostly focus on how the aid directly impacts on the behaviour of the beneficiaries. The following specific questions will be considered, among others:
- Does the aid granted under the scheme act as an incentive to the enterprises? Did enterprises with a low level of R&D&I expenditure also increase their expenditure in this area ('initialisation effect')?
 - Do the funded projects result in increased innovation outputs? In other words, did R&D&I expenditure develop differently in the beneficiaries compared with similar enterprises that were not?
 - What influence does the aid have on the R&D&I collaboration behaviour of the beneficiaries?
 - What are the heterogeneous effects of the aid on the beneficiaries? In other words, can different effects of the measures be observed, for example for particular sizes of business, sectors or regions?
- (16) In addition to these questions, the evaluation will also assess other aspects such as the development of the subsidised networks, the management of innovation projects or the way in which the strengths and potential for improvement of the scheme are perceived by the various users and stakeholders. Furthermore, indirect effects of the scheme (knowledge-, networks- and market spillovers) will be evaluated.

- (17) The evaluation will also cover questions related to the scheme's proportionality and appropriateness as well as to negative effects like for instance windfall profits.
- (18) The following set of key result indicators are defined:
- (i) general indicators for the implementation of the scheme: number of projects supported, funding volume, etc.;
 - (ii) increase in R&D&I expenditure of the beneficiaries, in general and of those with an initial low level of R&D&I expenditure in particular;
 - (iii) changes to the R&D&I collaboration behaviour of beneficiaries;
 - (iv) the intended examination of sub-groups, for example according to particular types of business, regions or sub-groups that availed themselves of particular types of funding will make it possible to map heterogeneous funding effects as well.
- v) *Envisaged methodology to conduct the evaluation*
- (19) Germany explained in its submission that the ZIM scheme had been evaluated several times, whereby a "*variety of evaluation methods were deployed in these studies which enabled the authors to address a number of research issues. No analytical-quantitative studies of the micro-effects have been undertaken so far, however. In connection with the ZIM, these could firstly show the net effects at micro-level and secondly provide a systematic examination of the possible heterogeneity of effects for the various groups of enterprises*". Germany adds that "*as part of the appraisal process in preparation of this evaluation plan, all major methods discussed in the European Commission's working document and in other pertinent sources were examined and the most suitable approach – respectively speaking- appears to be the application of quasi-experimental methods*".¹¹
- (20) According to the German authorities, the main envisaged methodology for the evaluation of the causal impact of the scheme is the so-called 'conditional Difference-in-Differences' approach, which combines two common methods: difference-in-differences, which allows for unobservable individual heterogeneity to be controlled, among other things, and matching, which aims to control for the influence of observable factors.
- (21) In order to assure the necessary rigour, the German authorities will base the construction of the control group on a wide set of structural and behavioural variables which include:
- level of staff training,
 - R&D intensity,
 - number of R&D staff (or R&D department),
 - export intensity,
 - R&D investments,
 - profit (or surplus, profit margin or return on sales),

¹¹ By contrast, randomised field experiments present legal and ethical/political difficulties and are not suitable for the ZIM, which has been established and running successfully for years. A natural experiment, which could only come about if enterprises were unable to influence any potential funding, is also not an option in the case of the ZIM.

- employees,
- revenue,
- economic sector,
- innovation output (product and process innovations)
- labour productivity

(22) As a complement, the evaluation foresees the usage of case studies, in order to have a general understanding of reasons why the causal relation inferred by the quantitative analysis took place.

vi) *Data collection requirements*

(23) The databases of the scheme's project promoters contain some important key information for evaluating the scheme (enterprise-specific details such as the company name, address, economic sector and revenue, project-specific details regarding the type of project, duration, amount of funding and technology field). According to the German authorities, the reliability of this pool of data has already been proven in many previous evaluations and it can therefore also be relied upon in the upcoming evaluation.

(24) The full range of the variables considered for the construction of the control group is mapped only once in Germany, in the Mannheim Innovation Panel [*Mannheimer Innovationspanel, MIP*] of the Centre for European Economic Research¹². This pool of data has the advantage that it contains, in addition to the minimum requirements, variables on the R&D collaboration behaviour, on the location and on other funding¹³ which seem necessary in order to enable more detailed analyses and to check for potential bias.

(25) The MIP is part of the Community Innovation Survey (CIS) coordinated by Eurostat. The MIP is an annual written survey of approx. 7 000 independent enterprises with more than five employees, including an additional test to check for potential bias carried out by telephone on approx. 5 000 other enterprises. The MIP sample is updated every two years by a random sample of newly founded enterprises to replace any companies which may have dropped out (e.g. because of closure). The panel style of the survey means that the innovation behaviour of companies can be observed over a longer period of time. The identification number of the credit rating agency *Creditreform* makes it possible to link data in the MIP. The number is also used by the ZIM project promoters and is therefore available for all ZIM beneficiaries and for the majority of enterprises which had their funding application rejected.

(26) During the evaluation the data pool may, if necessary, be enhanced or validated with additional data from the Federal Government's own database 'Profi', which contains funding details for several R&D funding programmes of the Federal Government. In addition, Germany envisages to use additional data sources for EU funded projects as well as the transparency database of the European Commission.

¹² <http://www.zew.de/de/>.

¹³ This indicator is shown in the MIP according to the funding at different levels over the past three years.

vii) *Proposed timing of the evaluation, including the date of submission of the final evaluation report*

(27) The evaluation should be completed at the latest by mid-2019. Given the average project term of two years, the first wave of completed R&D projects is to be expected in 2017. The MIP will have entered the results from the mid-2018 survey into the pool of data by the end of 2018 so that this will then include variables for 2017 and previous years.

(28) According to the German authorities, the selection of the independent evaluators is due to be put out to public tender at the beginning of 2018. After completion of the tender, the evaluation will be ready to start by mid-2018. Whereas the evaluators will not be able to go ahead with the econometric analysis based on the MIP data before the end of 2018 due to the time constraints outlined above, they will have greater flexibility in the timing of all other aspects of the work. The BMWi will include the provision of information on interim results as a requirement in the tender, which has the advantage, among others, that it may lead to early ideas or suggestions for possible changes to the funding guidelines from 2020. The final evaluation report will be transmitted to the European Commission at the latest on 30 June 2019.

viii) *Independent body selected to conduct the evaluation, selection criteria*

(29) The body conducting the evaluation will be independent from BMWi, projects promoters and the research institutes profiting from the scheme. According to Germany, the independence will be ensured and any conflict of interest avoided through a transparent, non-discriminatory and objective procurement procedure.

(30) According to the German authorities, the public tender will ensure a very high degree of professional independence. The aim of the call for tenders will be to ensure that the evaluation is objective, thorough, unbiased and transparent.

ix) *Modalities for ensuring the publicity of the evaluation and involvement of relevant stakeholders*

(31) The German authorities committed to the publication of the evaluation plan and the findings of the evaluation on a website of the Federal Ministry for Economics and Energy accessible to the general public without restriction (www.zim-bmwi.de). Accompanying media outreach will be conducted, for example by preparing and presenting the key results to the wider public and by explaining more specific technical results to a selected expert audience. Both the evaluation and the feedback received from interested members of the public on its results are expected to give rise to useful suggestions and ideas for the continued optimisation of the scheme.

3. ASSESSMENT OF THE EVALUATION PLAN

(32) It should be recalled that the correct application of the GBER is the responsibility of the Member State. The Commission decision approving an evaluation plan does not assess whether the aid scheme to be evaluated was put into effect by the

Member State in full respect of all applicable provisions of the GBER. Therefore, this decision shall neither create legitimate expectations, nor prejudge the orientation the Commission might take regarding the conformity of the aid scheme with the GBER when monitoring it or assessing complaints against individual aid granted under it.

- (33) Aid schemes falling under the provisions of Article 1(2)(a) GBER are subject to evaluation. The annual average budget of the present aid scheme, namely EUR 543 million, exceeds EUR 150 million as set in Article 1(2)(a) GBER and, therefore, it is subject to the obligation of notification of the evaluation plan as a condition for continuing to benefit from the block exemption after the expiry of the transitional 6-month period set out in that Article.
- (34) As the Commission explained in recital 8 of the GBER, the evaluation of large schemes is required *"in view of the greater potential impact of large schemes on trade and competition"*. The required *"evaluation should aim at verifying whether the assumptions and conditions underlying the compatibility of the scheme have been achieved, as well as the effectiveness of the aid measure in the light of its general and specific objectives and should provide indications on the impact of the scheme on competition and trade."* State aid evaluation should in particular allow the direct incentive effect of the aid on the beneficiary to be assessed (i.e. whether the aid has caused the beneficiary to take a different course of action, and how significant the impact of the aid has been). It should also provide an indication of the general positive and negative effects of the aid scheme on the attainment of the desired policy objective and on competition and trade, and could examine the proportionality and appropriateness of the chosen aid instrument.¹⁴
- (35) In the light of these considerations, Article 2(16) of the GBER defines as evaluation plan "a document containing at least the following minimum elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the data collection requirements, the proposed timing of the evaluation including the date of submission of the final evaluation report, the description of the independent body conducting the evaluation or the criteria that will be used for its selection and the modalities for ensuring the publicity of the evaluation."¹⁵
- (36) The Commission considers that the notified evaluation plan, as described in Section 2 of this decision, contains these minimum elements and was notified within 20 working days after Germany put the aid scheme into effect, in line with Art. 1(2)(a) of the GBER.
- (37) The evaluation plan gives a concise description of the key objectives of the aid scheme, and provides sufficient information to understand its 'intervention logic'. The scope of the evaluation is defined in an appropriate way.
- (38) The evaluation questions are designed in a way as to assess the direct effect of the scheme on the beneficiaries compared to a 'control group' of non-beneficiaries in

¹⁴ See the Staff Working Document cited in footnote 2 (footnote 3, section 2, second paragraph).

¹⁵ Further guidance on evaluation plans is given in the Staff Working Document cited in footnote 2.

order to estimate the direct impact of the aid. The evaluation questions addressing indirect impacts are linked to the specificities of the scheme, whose main objective is to enhance market-oriented R&D, collaboration in R&D with research institutes and to generate knowledge-, networks- and market spillovers to the economy. The Commission notes that the evaluation questions addressing possible negative effects will be closely linked to the different supported measure under the scheme. Taking into account the aid instrument used in the scheme, i.e. direct grants, the Commission considers that the evaluation of appropriateness and proportionality of the scheme and the aid instrument used will be crucial.

- (39) The evaluation plan identifies and justifies result indicators that integrate the evaluation questions for the aid scheme concerned, and explains the data collection requirements and availabilities necessary in this context. The data sources to be used for the evaluation are described clearly and most of them can be merged by company-specific identification number.
- (40) The main envisaged evaluation method is the so called 'conditional Difference-in-Differences' approach. The evaluation plan identifies a rich set of structural and behavioural variables for the construction of the control group. The Commission considers that the proposed evaluation methodology should allow for a proper evaluation of the scheme.
- (41) The proposed timeline of the evaluation is reasonable in view of the characteristics of the scheme concerned and the relevant implementation periods for projects supported under the scheme.
- (42) The proposed criteria for the selection of the evaluation body meet the independence and skills criteria.
- (43) The proposed modalities for the publication of the evaluation results are appropriate and ensure transparency. In particular, the Commission takes note of the commitment to disseminate and make publicly available the final findings to stimulate policy debate.
- (44) In view of the above, the Commission considers that the evaluation plan meets all requirements laid down in the GBER, is established in line with the common methodology proposed in the Staff Working Document, and is suitable given the specificities of the large aid scheme to be evaluated.
- (45) The Commission notes the commitment made by Germany to conduct the evaluation according to the plan described in the present decision and to inform the Commission of any element that might seriously compromise the implementation of the plan. The Commission also notes the commitment by Germany to fulfil the obligation to transmit the final evaluation report by 30 June 2019, and that all plans to modify this aid scheme have to be notified to the Commission.
- (46) Therefore, pursuant to Article 1(2)(a) of the GBER, the Commission decides that the exemption for the aid scheme for which the evaluation plan will continue to apply until 31 December 2019.

(47) Alterations to this scheme, other than modifications which cannot affect the compatibility of the scheme under the GBER or cannot significantly affect the content of the approved evaluation plan, are pursuant to Article 1(2)(b) of the GBER excluded from the scope of the GBER.

4. CONCLUSION

(48) The Commission decides:

- Regulation No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty shall apply to the scheme "*Central Innovation Programme for SMEs*" from the date of the present decision until 31 December 2019.
- This decision shall be published.

(49) Finally, the Commission notes that Germany agreed to have the present decision adopted and notified in the English language.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site:

<http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent by registered letter or fax to:

European Commission
Directorate-General for Competition
State Aid Greffe
B – 1049 Brussels
Belgium
Fax No: 32 2 296 12 42

Yours faithfully,
For the Commission

Margrethe VESTAGER
Member of the Commission

