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**Subject: State aid SA.40098 (2015/N) – Finland  
Evaluation plan- Aid scheme for funding of research and development projects**

Sir,

#### **1. PROCEDURE**

- (1) By electronic notification of 29 January 2015, Finland submitted a summary information sheet pursuant to Article 11(a) of the 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 Treaty<sup>1</sup> (hereinafter "GBER") on the Aid scheme for funding of research and development projects (hereinafter: "R&D aid scheme") which it had put into effect on 1 January 2015 in application of the Article 1 (2) (a) on the Scope of the GBER and plans to implement until the end of 2020. This submission was registered as SA.40749 (2015/X).
- (2) This 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

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<sup>1</sup> Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty.

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Commission following the assessment of an evaluation plan for the scheme to be notified by the Member State concerned.

- (3) To obtain that prolongation, following a pre-notification on 9 December 2014, Finland notified an evaluation plan for the scheme on 29 January 2015, which was registered by the Commission under SA.40098 (2015/N). By letter of 12 March 2015 the Commission asked for supplementary information, provided by Finland 13 April 2015. By E-mail of 23 April the Commission's services asked Finland to complement their replies to the information request with additional information and documents. Finland provided the requested information and the revised evaluation plan on 8 May 2015. The Commission considered information submitted still not sufficient to take the final view on the submitted revised evaluation plan. By letter of 11 May the Commission sent a second request for information to Finland, to which Finland answered by letter of 18 May 2015 and e-mails of 2 June 2015 and 5 of June 2015.
- (4) By letter dated 1 June 2015, Finland agreed to waive the rights conferred upon it by Article 342 TFEU and Article 3 of the Regulation (EC)1/1958<sup>2</sup> and to have the present decision adopted and notified in English language due to a risk of potential scheme's suspension.

## **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 evaluation<sup>3</sup> (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*

- (6) The maximum annual budget of the R&D aid scheme is EUR 400 million. The proposed duration of the R&D aid scheme is 1.1.2015-31.12.2020. The national legal basis for the scheme is Government decree on funding for research, development and innovation (1444/2014) (hereafter the Government Decree), in particular its chapters 1 (common provisions) and 2 (specific provisions on R&D aid scheme). The granting authority of the scheme is Tekes<sup>4</sup>, the largest public funding agency of research in Finland.

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

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

<sup>4</sup> [www.tekes.fi](http://www.tekes.fi).

- (7) The aim of the R&D aid scheme is to generate sustainable economic, social and environmental development and improve net wellbeing. The R&D aid scheme is targeted to R&D projects with high technological challenge aiming at significant breakthroughs, and which are expected to provide the largest benefits for the economy and society in the long-term.
- (8) According to the Government Decree (Art. 11), in line with Art. 25 of the GBER) eligible activities funded under the R&D aid scheme are research and development activities that fulfil the definition of fundamental research, industrial research or experimental development as defined in Art. 2 of the Decree<sup>5</sup>. The definitions are in accordance with the respective definitions of the GBER.
- (9) According to the Government Decree (Art. 12), the funded projects may include collaboration between several companies or between companies and research organisations within the meaning of Art. 25 (5)(b)(i) of the GBER. In accordance with Art. 12 of the Government Decree, the R&D aid scheme covers also projects the results of which will be widely disseminated (in line with Art. 25 (5)(b)(ii) of the GBER).
- (10) The R&D aid scheme is a horizontal scheme targeting all companies. An estimated 40-50 % is allocated to companies participating in nationally important thematic programmes. The rest is allocated to companies based on a continuous open call without any predefined thematic or sector preference.
- (11) Funding is available to firms through an open continuous competitive call. Funding decisions are based on a detailed project plan. Each project application in the R&D aid scheme is analysed by a team of 2-4 experts employed by Tekes (hereafter the ex-ante evaluation team). Each ex- ante evaluation team contains technical, business and financial expertise. The final funding decision is made by a Tekes decision maker at a given hierarchy level (not a member of the ex-ante evaluation team) depending on the amount of funding applied for. In order for a project to be funded it must fulfil the eligibility criteria and the selection criteria. Tekes does not use any scoring system for project selection but different criteria are balanced / weighed against each other in order to choose the projects that are expected to provide the best impacts. Funding is granted to projects that gain the most of the given public funding by generating the most valuable results to be exploited in the businesses of the beneficiaries.
- (12) According to the Government Decree (Art.3), funding for R&D projects in the R&D aid scheme is in the form of either grants or loans. Choice of the funding instrument depends on the stage of the project. Grants are mainly used for more challenging R&D (industrial research, experimental development with longer time to market) and loans for closer to market experimental development (e.g. pilot and demonstration projects).

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

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<sup>5</sup> Innovation aid to SMEs (Art. 28 of the GBER) is also covered by the scheme to the extent that costs for obtaining and validating (not defending) industrial property rights (mainly patents) generated in the R&D project can be accepted as eligible costs for SMEs. Finnish authorities have confirmed that this aid only covers a minor part of the scheme, i.e. the estimated total annual budget being less than one per cent of the total budget of the scheme.

(13) The specific objectives of the scheme are the following:

Objective 1: Increase innovative effort, technological development and innovation in the economy. This is expected to spur innovation-driven growth and net welfare.

Objective 2: Increase output, employment, and productivity, and accelerate company growth and internationalization. This is expected to strengthen the economic performance of the business sector and improve welfare.

Objective 3: Improve the functioning of the innovation system by increasing co-operation and networking in R&D activities. This is expected to facilitate further utilisation of existing knowledge and spur knowledge spillovers.

Objective 4: Induce technology spillovers to generate societal benefits from innovation externalities. This is expected to result in larger net societal gains from the scheme by increasing gross social returns.

Objective 5: Minimize adverse effects on product markets and competition. This is expected to result in larger net societal gains from the scheme by reducing gross social costs.

(14) Finland does not expect significant negative effects of the R&D aid scheme on the domestic market. Nevertheless, according to Finland, possible negative effects that could be associated with the aid scheme is the crowding out of private investments and negative sectoral effects linked to concentration of funding to some sectors. Even though the R&D aid scheme is horizontal, certain sectors might receive more funding than the others based on the size and importance of the sector or based on the structural changes in the Finnish economy.

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

(15) Finland indicates that based on the experiences from the previous aid scheme<sup>6</sup>, an economic recession could be considered as a specific risk or constraint likely to affect the implementation of the scheme, its expected impact and the achievement of its objectives. An economic recession could cause reluctance or incapability of companies to carry out R&D activities.

(16) Changes in the State budget can be mentioned as another possible constraint or risk including decrease in the total annual budget of Tekes or changes in the share of funding between funding instruments.

iv) *Evaluation questions and results indicators*

(17) The evaluation questions are based on the objectives described in point ii) above. Each question on the scheme's impact is linked to the relevant objective(s) (see

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<sup>6</sup> SA.23513 (N 356/2007) approved by the Commission decision C(2008)/436 of 31 January of 2008 and block-exempted under SA.23513(MX/2011).

recital (13) for objectives). The identified results indicators<sup>7</sup> are linked to evaluation questions and scheme's objectives.

- (18) The evaluation questions address both the direct effects of the scheme on the beneficiaries and the indirect effects of the scheme, as well as the proportionality and appropriateness of the scheme.
- (19) The direct impact of the scheme on the aid beneficiaries will be addressed by the evaluation questions on input<sup>8</sup>, output<sup>9</sup> and behavioural<sup>10</sup> additionality. The questions on input additionality will measure to what extent the aid scheme led to an increase of innovative efforts of the aid beneficiaries, namely, increase in R&D inputs and its magnitudes (Objective 1). The questions on output additionality will evaluate the impact of the scheme for instance on the beneficiaries R&D output, but also on the general beneficiaries' performance (Objectives 2 and 3). The questions on behavioural additionality will measure the impact of the scheme on the change in behaviour of aid beneficiaries for instance by measuring increase of networking and collaboration in R&D activities (Objective 4).
- (20) The indirect effects of the scheme will be captured by studying the performance of the unsupported firms. The evaluation questions on the indirect effects<sup>11</sup> of the aid scheme will in general measure i) the technology spill overs and social benefits generated from innovation externalities as well as ii) any adverse negative effects on the products market and competition.
- (21) The evaluation questions on appropriateness and proportionality of the aid scheme will in particular assess the efficiency of the aid scheme's design by investigating whether the same effects could have been achieved with different structures of aid instruments.

v) *Envisaged methodology to conduct the evaluation*

a. *Methodology for the estimation of the scheme's direct impact*

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<sup>7</sup> Input additionality: e.g. Share of firms deciding to invest in RDI (supported vs. non-supported firms); Innovation expenditures as a percentage of turnover (supported vs. non-supported firms), number of RDI jobs created (supported vs. non-supported firms); Output additionality: e.g. Share of firm which filed new patent applications, number of patents created (supported vs. non-supported firms), Behavioural additionality: Share of firms which collaborate with universities and research institutions (supported vs. non-supported firms); share of firms which collaborate with customers/competitors/universities and research institutions (supported vs. non-supported firms).

<sup>8</sup> "Do supported firms increase R&D inputs as a result of public support? To what extent R&D inputs are increased?"

<sup>9</sup> "Do supported firms produce more innovative output as a result of public support? To what extent innovative output is increased? Do supported firms improve their economic performance as a result of public support? To what extent performance is increased?"

<sup>10</sup> "Do supported firms increase networking in technological development projects with other businesses and research organizations?"

<sup>11</sup> "Does public support induces input, output or behavioural additionality among unsupported firms?" and "What are the indirect effects of the scheme on the rivals of the supported scheme?"

(22) The direct causal impact of the aid scheme on the beneficiaries will be identified by employing matching methods. If there are some (observable and unobservable) characteristics that affect the probability of receiving the aid and the future R&D productivity, then the simple comparison of beneficiaries and non-beneficiaries might lead to biased estimates of the impact of the scheme<sup>12</sup>. By adopting matching methods the evaluation plan proposes to control the impact of these factors by taking into account the differences in observable characteristics. This identification strategy relies on the following assumption: i) all the variables that have impact on the attribution of R&D support and the outcome of the research activity are observable and controlled for and ii) once the impact of these observable characteristics is taken into account, the outcome of interest is independent from other unobserved characteristics that might also affect the attribution of R&D support.<sup>13</sup> For the matching method, to provide valid estimates of the direct impact of the State aid measure, it is required that all the variables that impact both the selection of beneficiaries and the outcome of interest are controlled for. The control variables identified in the evaluation plan are related to company characteristics (industry, geographical location, age, export activity, financial statement variables including total assets, turnover, and profits) and measures of research productivity and innovativeness (R&D and patenting activity in previous years), available in the R&D survey panel<sup>14</sup>.

(23) Moreover, the evaluation plan proposes to control the potential biases arising from self-selection of applicants by accounting for the decision to apply for R&D and use as control group other firms that apply for R&D support but that are not selected.

(24) According to Finland, the econometric specification employed will then minimise the risk of having other confounding unobservable factors affecting the results by including an as rich as possible set of control variables covering a vast set of company characteristics that may be conceived to result in differences in innovative performance. In this respect the evaluation plan suggests that the availability of comprehensive firm-level series of pre-determined innovative inputs and outputs for supported and unsupported (both applicant and non-applicant) companies will mitigate concerns about unobserved research effort that would otherwise bias the estimates when not properly controlled for.

*b. Methodology for the evaluation of indirect effects*

(25) The evaluation of *indirect effects* will focus on the impact of the scheme on non-supported firms. The credible examination of *indirect effects* is more challenging than in the case of direct effects. One of the challenges is for instance the identification of an appropriate control group not indirectly affected by the scheme.<sup>15</sup> The analysis of indirect effects will be based on a descriptive study examining how R&D inputs, innovative output and competitive position of the non-supported firms (both non-supported applicant firms and non-supported non-

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<sup>12</sup> This naïve comparison of beneficiaries and non-beneficiaries will most likely measure the systematic differences between the two groups and not the impact of the measure that is evaluated. This is known as the "selection problem" in the evaluation literature.

<sup>13</sup> This is known as the conditional independence assumption.

<sup>14</sup> The official annual survey of the Statistics Finland.

applicant firms) has changed compared to general trends of their market segments or the same relevant market. The analysis of the indirect effects will also examine whether any negative performance of the non-supported firms vis-à-vis the general market trends have not been caused by the aid granted under the scheme to the supported firms of the same relevant market.

(26) Furthermore, the evaluation will investigate, with a micro-econometric analysis, whether the indirect impact on non-supported firms is related to the aggregate amount of aid granted to firms in the same market segment of the non-supported firms. This analysis, by using detailed industry classification, will measure the aggregate R&D support received by each segment and identify the market segments with high and low levels of aggregate aid. The analysis will then study whether non-supported firms with high aggregate R&D support in their market segment are performing worse than similar non-supported firms with low aggregate R&D support in their market segment. The same approach applied to market segments will also be applied to technology classes (to disentangle indirect effects along the technology dimension – i.e the analysis of innovative performance of non-supported firms by high and low aggregate R&D aid across narrowly defined technology fields). As for the direct impact analysis, the evaluation plan argue that the validity of the comparisons between the non-supported firms with high and low exposure to the scheme's intervention will be guaranteed with the matching method controlling for R&D and patenting history and a rich set of other company characteristics (the same considered in the direct impact analysis).

*c. Methodology for the evaluation of sectoral effects*

(27) To investigate and compare the potential heterogeneous effects of the scheme across sectors and by firm type, the analysis will be replicated for sub-samples of companies. The evaluation will be applied separately for different sectors (at as fine degree as data allows, but at least for high- and low-R&D intensity sectors separately for manufacturing and services) to disentangle the potential sector specific effects. The analysis will also be implemented by splitting the full sample by the size of the firm and by the financial position of the firm (e.g. net indebtedness) to provide further information on the success in targeting the support and whether there are any differences in the effects between companies according to their financial position.

*d. Methodology for the evaluation of the scheme's proportionality and appropriateness*

(28) The proportionality and appropriateness of the scheme will be examined by using sub-samples with only subsidy grantees or loan grantees in the treatment group.

*vi) Data collection requirements*

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<sup>15</sup> This is in particular true for nationwide scheme open potentially to all firms.

- (29) The key datasets used in the evaluation are maintained by Statistics Finland<sup>16</sup>. According to Finland, the data covers a comprehensive population of companies in the supported, applicant unsupported, and non-applicant unsupported groups. Administrative data sources and specific business surveys, including data held by Tekes, can be merged by a company-specific unique identifier code.
- (30) The external data sources used for the scheme's evaluation will be the following: Statistics Finland Annual R&D Survey<sup>17</sup>, Statistics Finland Innovation Survey<sup>18</sup> incl. Statistics Finland Patent Database<sup>19</sup>, Financial Statement Panel<sup>20</sup>, Business Register<sup>21</sup> and Enterprise Subsidy Database<sup>22</sup>.
- (31) The external data may be complemented with applicant specific application data and beneficiary-specific funding data collected by Tekes. The data can be merged with other data sources by company identification numbers.
- (32) According to Finland, Tekes databases include information of around 4000 Tekes-funded projects. The databases include basic information from the ex-ante project evaluations, monitoring and ex-post project evaluations since 1990 as well as extended evaluation and monitoring information since 1999 on all Tekes projects.
- (33) This data covers the whole life-cycle of projects including project applications, ex-ante evaluation, funding decisions, project reporting, cost statements and payments, project amendments including amendments to loans and reimbursement of loans. Information is available at company level and at project level.
- (34) All data is collected annually except for the Statistics Finland Innovation Survey (CIS) which is collected every other year. The Statistics Finland Annual R&D survey data are available for research within 16 months from the end of the relevant statistical year. CIS data becomes available within two years from the relevant time period.
- (35) Finland states that all statistical data can be accessed by any researcher for scientific and statistical purposes in the premises of Statistics Finland. Researchers within the EU can gain online access to the data via a research institution holding an online access license. The complementary Tekes data is similarly available at the level of individual companies.
- (36) Beneficiary surveys and interviews could be carried out by external evaluators if needed for the scheme evaluation. Tekes will not have access to survey or interview data of individual beneficiaries or scheme managers carried out by external evaluators. However, this data will be made available for further evaluations in the evaluators' files.

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

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<sup>16</sup> Statistics Finland is the only Finnish public authority specifically established for statistics. It produces the vast majority of Finnish official statistics and is a significant international actor in the field of statistics. [http://www.stat.fi/index\\_en.html](http://www.stat.fi/index_en.html).

*evaluation report*

- (37) According to Finland, a mid-term and a final evaluation will be carried out during the implementation of the aid scheme.
- (38) The mid-term evaluation will be carried out during 2017. The mid-term evaluation report will be submitted to the Commission by 30 June 2018 and published by Tekes during September-October 2018. The final evaluation will be carried out during 2019 and results can be published in spring 2020. The final report will be submitted to the Commission by 30 June 2020 and published by Tekes during September-October 2020.
- (39) According to Finland, some impacts may not be fully assessed during the aid scheme's operation because projects funded under the scheme will be completed in 2017 at the earliest and some of the impacts may only be measured 3-5 years after the project has been completed. In order to address this issue, Finland proposes that data on projects funded in the previous Tekes R&D aid scheme<sup>23</sup> (years 2010-14) will be used in the evaluation to complement when needed the analysis.

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

- (40) The body conducting the evaluation will be independent from Tekes and from the Ministry of Employment and Economy. According to Finland, the independency

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<sup>17</sup> This is an official annual survey of the Statistics Finland. It covers all companies over 100 employees, almost all R&D active companies with less than 100 employees, and a random sample of R&D-inactive companies with less than 100 employees. The sampling frame is drawn from administrative business registries. The data cover longitudinal information on annual basis on all key innovative inputs used in the analysis (R&D expenditure, R&D employment, number of researchers, type of R&D, etc.). The data are available for researcher use within around 16 months from the end of the relevant statistical year. Currently comprehensive panel is available for the period 1995-2013.

<sup>18</sup> This is an official biannual survey of the Statistic of Finland. It is based on the Community Innovation Survey (CIS) with added country specific questions. It includes information on key innovative outputs (process and product innovation) and innovation co-operation. The survey covers all companies with at least 250 employees and a random sample of smaller companies. Latest currently available data is for the period 2010-2012.

<sup>19</sup> This database covers patents granted for and applied by Finnish companies until 2012. The data is most recent for patents applied in Finland. The data can be complemented with the most recent patent database of the European Patent Office (EPO PATSTAT).

<sup>20</sup> This data include the most essential profit and loss account and balance sheet data of basically all enterprises in Finland.

<sup>21</sup> This data include enterprises' addresses, branches of industry, size categories of personnel and turnover, dates of establishments and importer/exporter data. The data can be derived on both enterprise and establishment levels. The data sources of the Business Register are several administrative records and Statistics Finland's direct inquiries to enterprises.

<sup>22</sup> This database covers information on all subsidies and loans allocated by some major business subsidy programmes by beneficiary firm. Specifically, it covers information on Tekes loans and subsidies since 2000. This data will be complemented with more detailed data from Tekes databases (see section Tekes Internal Data).

<sup>23</sup> SA.23513 ( N 356/2007) approved by the Commission decision C(2008)/436 of 31 January of 2008 and block-exempted under SA.23513(MX/2011).

will be ensured and any conflict of interest avoided through a transparent, non-discriminatory and objective international procurement procedure.

(41) The international invitation to tender will be published in September-October 2016. Completed tenders must be delivered no later than end of November 2016. The contract period will cover both the mid-term and final evaluations. A specific conflict of interest clause will be included in the invitation of tender and in the agreement between Tekes and the evaluation body.

(42) All invitations of tender are open to all evaluators. The most economically advantageous proposal will be selected, notably based on the following criteria: skills, including knowledge and expertise on the international and the Finnish innovation research and innovation systems, and research and innovation policy, and adequate and proven experience and methodological knowledge of carrying out innovation impact assessments and econometrical analysis, and price.

*ix) Involvement of relevant stakeholders*

(43) At the end of both the mid-term and the final evaluations, validation workshops will be organised where main public bodies will be represented including the Ministry of Employment and Economy, evaluator organisations and Tekes representatives as well as relevant stakeholders including the organisations representing potential beneficiaries of the scheme (industrial associations etc.), public R&D&I agencies, policy makers (Ministries, Prime Minister's Office), and relevant research organisations with evaluation expertise.

(44) The main contribution from the stakeholders will be received during the validation workshops. After the validation workshops, evaluation reports will be published by Tekes.

*x) Modalities for ensuring the publicity of the evaluation*

(45) The evaluation plan will be published on the Tekes web page<sup>24</sup> once approved by the Commission. The evaluation results will be published in English. The evaluator will also prepare a summary in Finnish and presentation material of the main results. All evaluation reports are published in Tekes publication series <http://www.tekes.fi/tekes/julkaisut1/>.

### **3. ASSESSMENT OF THE EVALUATION PLAN**

(46) The correct application of the GBER is responsibility of the Member State. The present decision on the 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 prejudice 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.

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<sup>24</sup> [www.tekes.fi](http://www.tekes.fi).

(47) Pursuant to Article 1(2)(a) GBER, certain aid schemes<sup>25</sup> with an their average annual State aid budget exceeding EUR 150 million, should be made subject to evaluation. The annual average budget of the R&D aid scheme, namely EUR 400 million, exceeds EUR 150 million as set in Article 1(2)(a) GBER

(48) 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.<sup>26</sup>

(49) 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."<sup>27</sup>

(50) 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 Finland put the aid scheme into effect for in line with Art. 1(2)(a) of the GBER.

(51) The evaluation plan gives a concise description of the key objectives of the R&D aid scheme, and provides sufficient information to understand their 'intervention logic'. The scope of the evaluation is defined in an appropriate way. The Commission notes that the evaluation plan also describes possible constraints and risks that might affect the scheme's objectives and hence the expected effects.

(52) The evaluation questions are designed in a way as to assess the direct effect of the scheme on the beneficiaries compared to rejected aid applicants (i.e. non-supported

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<sup>25</sup> Schemes under Sections 1 (with the exception of Article 15), 2, 3, 4, 7 (with the exception of Article 44), and 10 of Chapter III of this Regulation (Article 1(2)(a) GBER). 'Aid scheme' means any act on the basis of which, without further implementing measures being required, individual aid awards may be made to undertakings defined within the act in a general and abstract manner and any act on the basis of which aid which is not linked to a specific project may be granted to one or several undertakings for an indefinite period of time and/or for an indefinite amount (Article 2(15) GBER).

<sup>26</sup> See the Staff Working Document cited in footnote 2 (footnote 3, section 2, second paragraph).

<sup>27</sup> Further guidance on evaluation plans is given in the Staff Working Document cited in footnote 2.

applicants) in order to measure the incentive effect of the scheme. The evaluation questions addressing indirect impacts are linked to the specificities of the R&D aid scheme, whose main objective is to enhance collaboration in R&D and to generate knowledge and technology spill-overs to economy. The evaluation questions on negative effects will likely capture the dynamic potential negative effects of the scheme on the performance of non-beneficiaries (both rejected applicant and non-applicants). Taking into account the different aid instruments used in the R&D aid scheme, namely grants and soft loan, the evaluation questions on appropriateness and proportionality are suitable.

(53) The Commission also notes that as indicated by the Finnish authorities, despite the fact that the scheme is a horizontal one, the distribution of the aid among the sectors might not be equal based on the experience from the preceding scheme. The plan therefore foresees evaluation of indirect, also negative impacts of the aid scheme on the supported sectors. The Commission also acknowledges that the indirect and negative impacts of the scheme on competition can be measured only with time-lags going beyond the planned expiry date of the scheme. Therefore, the Commission accepts that for the evaluation purposes of indirect and negative effects the project based data from the previous scheme mentioned above will complement the analysis.

(54) 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 evaluation are described clearly and in detail and most of them can be merged by company-specific identification number. The access conditions into the databases are well presented in the evaluation plan. The Commission notes that the external evaluator will be allowed to complement the existing data by surveys or interviews of aid beneficiaries, which can be used for further evaluations.

(55) The main evaluation method presented in the evaluation plan is the "matching method", an econometric approach usually adopted in the evaluation literature. The validity of this approach relies on some specific assumptions, in particular the ability to control for the variables that affects both the self-selection of beneficiaries and the outcome of interest for the evaluation. The plan proposes to satisfy this condition by establishing a suitable control group (firms with similar observable characteristics) for each analysis and by controlling for a wide range of control variables. The evaluation plan identifies a very complete dataset including project/firm database kept by Tekes (Tekes has data on 4000 projects), and it is likely that by using a rich and detailed set of control variables and using a sample of non-supported firms that have applied to the R&D scheme (for the estimation of the direct impact), the proposed evaluation methodology will sufficiently allow the identification of the causal impact of the scheme. Taking note of the other evaluation methods discussed with Finland in the context of the notified evaluation plan, the Commission welcomes the use of other appropriate evaluation methods (e.g. Difference-in-Differences, Regression discontinuity design and Instrumental Variables) that complement the measurement of the causal effects of the scheme.

(56) The proposed timeline of the evaluation is reasonable in view of the characteristics of the measures concerned and the relevant implementation periods for projects

supported under the scheme. Findings of the medium-term evaluation can serve a very important purpose of informing the early stages of scheme's revision process.

- (57) The proposed criteria for the selection of the evaluation body meet the independence and skills criteria.
- (58) 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 emerging and final findings to stimulate policy debate.
- (59) 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.
- (60) The Commission notes the commitment made by Finland 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 Finland to fulfil the obligation to transmit the final evaluation report by 30 June 2020, and that all plans to modify this aid scheme have to be notified to the Commission.
- (61) 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 2020.
- (62) 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**

- (63) 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 continue to apply to the Finnish Aid scheme for funding of research and development projects until 31 December 2020.
  - This decision shall be published.
- (64) Finally, the Commission notes that Finland agreed to have the present decision adopted 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

**CERTIFIED COPY**  
For the Secretary-General,

**Jordi AYET PUIGARNAU**  
Director of the Registry  
**EUROPEAN COMMISSION**