Estonia – Evaluation and monitoring procedure

1. Ex-ante Impact Assessment
1.1. Methodology and procedures conducted (if applicable)
Not applicable or no information presently available.

2. Procedure for selection of the research infrastructures to be included in the roadmap
2.1. Objectives of the evaluation
Not applicable or no information presently available.
2.2. Eligibility conditions
Not applicable or no information presently available.
2.3. Evaluation criteria for the selection of the RI to be included in the RI national roadmap
The following aspects of a roadmap application were assessed: • Importance, comprehensiveness and competitiveness for R&D in the national and international context • Relevance of the vision and development goals • Importance to the industry and enterprises Relevance of the roadmap's components, investments and operation costs
2.4. Evaluation method and procedures conducted (organisation in charge, timing, selection of reviewers, configuration of panels, indicators, etc.) for the selection of the RI to be included in the RI national roadmap
The first Estonian research infrastructure Roadmap was created in 2010. Although the Roadmap is a long-term planning instrument for the research infrastructure, with a longer than ten-year perspective, it was required that the Roadmap be updated every three years and the interim reports on projects that are already in the roadmap be evaluated. To carry out this task, the Estonian Research Council created a Research Infrastructure Expert Group whose members include people from the public, private and academic sector with the executive board directive No. 1–1.4/13/43 from 11 April 2013. The tasks of the Expert Group included a) participation in the updating of the Estonian research infrastructure roadmap, b) evaluation of current roadmap objects and the projects submitted to the roadmap, and c) making propositions to the Estonian Research Council on updating the roadmap. Based on the aforementioned directive and the document from 17 April 2013 approved by the research infrastructure Expert Group "Updating the Estonian Research Infrastructure Roadmap 2013", the Expert Group started work in April 2013. The first Roadmap (2010) Working Group had developed a detailed method for evaluating applications and the new Expert Group took this as the basis for their work. Aiming for integration with the European research environment, especially that of Finland and the other Nordic countries, the Expert Group used Finland's roadmap evaluation questionnaire and form. The Expert Group's task was to evaluate the objects on the 2010 Roadmap and their activities so far as well as new submitted projects. Thus, unlike in the first round, the projects belonged to three groups—Roadmap projects that had received funding, those that had not received funding (not operating as of yet or partly funded), and new roadmap applications for which the conditions for applying were complemented. In order to minimise the bureaucracy for the research community, it was decided the roadmap would be updated in two parallel parts. Based on the information in the 2010 applications and the reports received by the Estonian Research Council, the existing roadmap objects were sent a pre-filled interim report form by the Council. This only included questions about the vision for the next five years along with investment requirements, a request to confirm the pre-filled data and add the information not included in the pre-filled form. Funded objects were also asked how they are keeping to the action plan and schedule. Proposals for new infrastructures were

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asked on a separate improved application form in English. Applying began with an information day which introduced the task of updating the roadmap, procedures and application forms and provided answers to numerous questions. The deadline for submitting the interim reports and new proposals was 9 September 2013 and by that time all 20 Roadmap objects had submitted the interim reports and there were 12 new infrastructure proposals.

For evaluating the new proposals, the Expert Group used foreign experts with a strong research background who also held knowledge on building and/or managing research infrastructures on a national level. The following aspects of a roadmap application were assessed: importance, comprehensiveness and competitiveness for R&D in the national and international context, the relevance of the vision and development goals, importance to the industry and enterprises, and the relevance of the roadmap's components, investments and operation costs. Each proposal was evaluated by 1–5 foreign experts, while several experts evaluated 3–4 proposals to gain a better point of comparison. Experts were recruited by the Estonian Research Council with the help of the Academy of Finland and the Swedish Research Council, and following the Council's recommendations on experts from Latvian and Lithuanian Ministries of Education. There were experts from Norway and Denmark as well. In addition to their opinions, the experts scored each evaluation criterion but these scores were not summarised and no ranking was compiled.

The Expert Group evaluated interim reports as well as new proposals. All Expert Group members were asked to present written evaluations on all the parameters about all the projects in advance and these were submitted for reviewing to all members before the Expert Group meetings. The interim reports of objects that had already received funding were also evaluated in view of their conformity to the promises and action plans that served as the basis for the funding application, and the decision of whether or not the project was to remain in the roadmap was made accordingly.

Evaluation meetings were held in three parts. The first meeting was for analysing the interim reports of the current roadmap objects and making pre-decisions on which objects would continue, which require additional information and which will not continue to be in the roadmap. The second evaluation meeting was for analysing new proposals. It was determined which proposals require additional information and their authors were asked additional questions and the presentation of propositions which had to be provided either in written form or at the presentation. Four representatives of current roadmap objects and five representatives of new proposals were asked to make a presentation (in the third meeting of the Expert Group). The third meeting formed the decisions whether current objects would continue or not continue in the roadmap and whether new proposals would be accepted as well as provided recommendations and comments. All decisions and formulations of all the meetings are consensual.

Naturally, the wide range of the Roadmap allows for applications with a different influence and reach, which have different integration levels in their field. Joining similar applications might not always be a good solution; important partners might be left out. In order to achieve the best result which guarantees the integrity of the field and national interests, an additional broad-based analysis is required. Therefore, the Expert Group made two more suggestions. The social sciences field, which has an important part in the society's development, should be developed in a more coordinated manner and better integrated with the country's needs, and to achieve this, it was considered necessary to form an Expert Group that includes representatives of Statistics Estonia, Government Office, researchers of the field of social science, other ministries and related institutions, to devise a plan for the coordinated development of the social sciences research infrastructures. The second recommendation concerns participation in major international research centres/infrastructures where applications have currently been sent on the "first come, first served" principle. The Expert Group recommended treating this package as an object of the Roadmap with a list of different fields produced by the Estonian Academy of Sciences.

The Roadmap is a list of large research infrastructures, intended to link the development ideas and

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activities of different research groups and institutions to improve international competitiveness. It is not a funding decision or the only method for developing the research infrastructure.

2.5. Proposals evaluated and selected (available statistics)

The Working Group of Estonian experts set up by the Ministry of Education and Research of Estonia was responsible for compiling the first Roadmap in 2010. From the 50 proposals initially submitted (13 proposals of the total were involved with participation in international infrastructures or networks), the group selected 20 infrastructure objects to be included in the first Roadmap.

I case of Roadmap update the deadline for submitting the interim reports of roadmap objects and new proposals for the Roadmap (2014) was 9 September 2013 and by that time all 20 objects of the first Roadmap had submitted the interim reports and in addition 12 new infrastructure proposals were submitted. In the updated Roadmap (2014) there are 15 objects from the first Roadmap and 3 new projects.

3. Update / Monitoring and ex-post Evaluation of RI Roadmap
3.1. Objective of the monitoring of the RI national roadmap as a whole

Not applicable or no information presently available.

3.2. Periodicity of the RI national roadmap monitoring actions (if applicable)

According to the mission stated in the Roadmap, it will be updated regularly (at an interval of 3 years) to take into account the changing circumstances and opportunities.

Although the roadmap is a long-term planning instrument for the research infrastructure, with a longer than ten-year perspective, it was required that the roadmap be updated every 3 years and the interim reports on projects that are already in the roadmap be evaluated.

3.3. Methodology and procedures conducted (timing, approach, indicators, etc.) for monitoring the RI national roadmap

At the end of 2012, the Ministry of Education and Research ordered Estonian Research Council (ETAg) to launch a process of updating the Roadmap. In spring 2013, ETAg formed a permanent RI Expert Group with the mission to advise ETAg on long-term research infrastructures policy at national and international level. The mission includes also the update of Roadmap. The National RI Expert Group consists of 13 members from academy, industry/entrepreneurship and governmental sector.

In May 2013, ETAg launched the Roadmap update through two activities:

1. Mid-term review of existing RI's through mid-term reports;
2. Call of Proposals for new RI's.

3.4. Methodology and procedures conducted (timing, approach, indicators, etc.) for monitoring the individual RI included in the RI national roadmap

By the deadline in September 2013, all 20 RI listed in the existing Roadmap submitted their mid-term reports. In addition to that, 12 new RI proposals were submitted. The RI Expert Group will have to assess the new proposals as well as the state-of-art of existing RI's and make a decision about their continuation/exclusion from the updated Roadmap.

The external experts were used only for assessing the new proposals. Each proposal was reviewed individually by two external experts (minimum –at least one external expert per proposal). Individual review reports submitted by the experts were used by the RI Expert Group as input and complementary material in analysing the new proposals for inclusion in the Roadmap. The external experts submitted their individual review reports electronically; they were not expected to travel to Estonia.

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The individual review report is divided into four sections:

In *Section 1*, experts were asked to assess four items:

1. RI's significance for research and science, its state-of-art in international context

2. Relevance of the RI's vision and development goals.

3. RI's significance for industry and entrepreneurship.

Rating scale

5 = excellent, extremely good in international comparison – no significant elements to be improved

4 = very good, contains some elements that could be improved

3 = good, contains elements that can be improved

2 = unsatisfactory, in need of substantial modification or improvement

1 = weak, severe flaws that are intrinsic to the proposed project or the application

The experts were also asked to comment shortly their assessments.

In *Section 2*, experts were asked to assess three items:

4. Relevance of the components of the RI.

5. Relevance of the estimated investment needs.

6. Relevance of the annual operating costs.

Rating scale

For item 4: Sufficient / partially sufficient / insufficient

For items 5 and 6: Overestimated / sufficient / underestimated

The experts were also asked to comment shortly their assessments. Rates, given by experts, were not summed up. They indicated experts' general opinion about certain item.

In *Section 3*, experts were asked to classify the proposal as follows:

1. Proposed RI is mature to be included into National Roadmap.

2. Proposed RI is promising but needs improvements to be included into National Roadmap.

3. Proposed RI is immature and not suitable for National Roadmap.

The recommendations were asked in the next section.

In Section 4, the experts were asked to provide overall assessment of a proposal and to point out its main strengths and weaknesses, as well as make comments and recommendations. No overall rating was required in this section.

3.5. Methodology and procedures conducted in the case that an ex-post evaluation of the RI national roadmap is planned or has been implemented

Not applicable or no information presently available.