Estonia – National embedment

1. RI definition	
In which points does the National Roadmap deviate from the ESFRI Roadmap?	
Categories	**National Roadmap**
Funding	
Categorisation of RI	x
Access to RI	x
Organisation within national procedure	x
RI is the means (laboratories, equipment, devices, collections, etc.), knowledge, methods, material, and the related activities and used for the creation of new knowledge and the transfer, mediation and storage of knowledge. The Estonian research and development strategy intends the development of the RI, including the development of the digital infrastructure. Facilities, resources and services that are used by the research communities to conduct research and foster innovation in their fields. They include major scientific equipment (or sets of instruments), knowledge-based resources such as collections, archives or scientific data and e-infrastructures such as data and computing systems and communication networks. Such infrastructures may be 'single-sited', 'virtual' or 'distributed'. (European Commission, 2010b; ESFRI, 2011)	

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2.   RI players in the national R&I system

The RI players within the R&I system are displayed in figure 4.
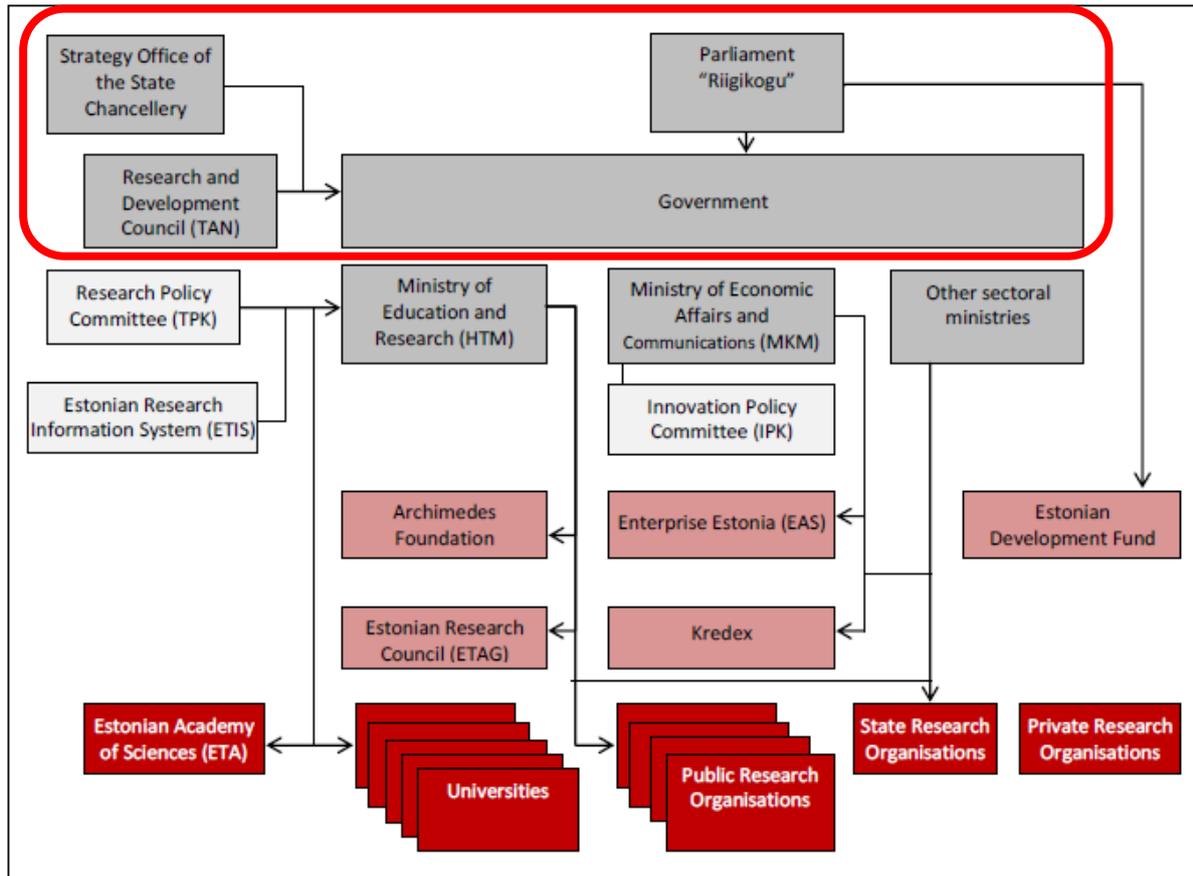
Source: ERAC Peer-Review of the Estonian Research and Innovation System, 2012; updated by the author. Note: Estonian acronyms are given in brackets.

Figure 4: Organisational chart of the R&I system of Estonia (Ruttas-Küttim and Stamenov 2016 p. 17). Red colour indicates the bodies with the main decision power regarding RI.

National relevance of RI

A systematic development of an adequate infrastructure in Estonia appears to be a crucial precondition in order to secure further continuation of research, development and innovation activities necessary for transition to a knowledge based society. A special strategy elaboration measure for the corresponding activities is provided within the European Union in the form of the RM, which is a long-term planning instrument (with 10 to 20 year perspective) that includes a list of nationally significant objects, either new or in need of renovation, pertaining to the RI. The roadmap is a list of RI, intended to link the development ideas and activities of different research groups and institutions to improve international competitiveness. (Estonian Ministry of Education and Research, 2010, p. 10)

Embedding of RI in the national R&I system

The main entity responsible for RI is the Ministry of Education and Research. Support for RI is provided by different funding instruments. The Estonian Research Council responsible for the Estonian Research Infrastructures Roadmap, support for research infrastructures of national importance, coordination of Estonian participation in international research infrastructures, and support for core facilities at the Estonian R&D institutions.

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3.	RI in the National R&I System

The Estonian R&I system is centralised. **The Ministry of Education and Research (HTM) is responsible for all areas of education and research in Estonia.** Fundamental and scientific research is the responsibility of the HTM, while the Ministry of Economic Affairs and Communications and the Ministry of Entrepreneurship are responsible for technological development and innovation. The HTM is assisted by twelve agencies, but it is not itself responsible for the development of R&D guidelines, by financing and evaluating the results of the work. These agencies include: Language Inspectorate, the National Examination and Qualification Center, the Estonian Educational and Research Network, the Estonian Youth Work Center (EYWC), the Tiger Leap Foundation, the Estonian Science Foundation, the Archimedes Foundation, the Estonian Information Technology Foundation, the INNOVE Foundation For Lifelong Learning, Estonian Sports Information Center, AHHAA Foundation Science Center, Estonian Qualification Authority. **At institutional level, the Estonian Research Council is in charge for supporting the Estonian RI.**

The HTM implements the national research policy and organises research and development activities, prepares proposals concerning the research policy, submits them to the Government and organises the financing of research and development at research and development institutions. The MKM organises technological development and innovation policy, prepares proposals concerning technological development and innovation policy and submit them to the Government. It is also responsible for organising the funding of applied research, development and innovation. (Ruttas-Küttim and Stamenov 2016, p. 15)

4.	Major national strategies for international cooperation in R&I and strategic integration of RI

R&I strategic objectives and principles of management and financing are set in two main strategies: "Knowledge Based Estonia 2014-2020" and the "Entrepreneurship growth strategy for 2014-2020". While updating the RI Roadmap in 2013, Estonia had quite comprehensive consultations with Finland, as Finland also updated their Research Infrastructure Roadmap. Foreign experts were also involved in the process of evaluation of new infrastructure proposals for the Roadmap.

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