

The European Advanced Translational Research Infrastructure in medicine EATRIS

Scientific area:	Medical Sciences
Host country:	Netherlands
Infrastructure type:	Distributed
Dutch node or similar:	EATRIS-NL
Legal Entity	ERIC
Established:	2013
The Netherlands member since:	2013
Phase:	Operational

Duration of agreement

Ongoing

Terms of withdrawal

12-month notice and withdrawal becomes effective at the end of a financial year and after the withdrawing member has fulfilled its obligations.

Access to facilities

Access to researchers from both universities and industry according to certain Access Criteria.

Access to data

Open data - FAIR at source however under the responsibility of the institutions and under contracting

User definition

Infrastructure user: PI/Project Leader or similar requesting use of a facility for a single research project;
Educations and Training participants: (F2F and virtual educational events) does not include viewers of post-event recordings such as youtube videos.

Description

EATRIS is the European infrastructure for translational medicine and strives to accelerate product development by utilising cutting edge enabling technologies. Academic researchers, companies and charities are provided access to the clinical expertise and high-end infrastructure that is available within the 127 (2022) top tier academic centers across Europe that comprise EATRIS. EATRIS focus on preclinical and early clinical development of drugs, vaccines and diagnostics. EATRIS is an ERIC that is supported by 14 European countries and is coordinated from Amsterdam.

Financial details

Mean Dutch membership over 5 year period (€K): 107,5 (*)

Mean Dutch share of contribution over 5 year period (%): 7,25 %(*)

Year	Total income (k€)	Total expenditure (k€)	Total income membership fees (k€)	Dutch membership fee (k€)
2016	1.768	1.784	1.425	100
2017	1.631	1.842	1.370	100
2018	1.723	2.200	1.413	100
2019	2.285	1.918	1.728	130
2020	n/a	n/a	n/a	n/a

* *Comment RI (2020):* EATRIS-NL has never received MS financing

Employee statistics

	Female	Male	Other	Total
Total	6	7	0	14
Of which Dutch*	n/a	n/a	n/a	n/a

Employee statistics for 2019, Full Time Equivalents (FTE)

Use of the infrastructure

User information

	Number of users		Dutch share of users (%)	Type of users		
	NL	Other countries		Senior Scientists	Students	Technical personnel
2016	5	52	9	75	20	5
2017	11	61	15			
2018	7	152	4			
2019	19	295	6			
2020	n/a	n/a	n/a			

Comments by the RI:

We do not collect information on gender of our users. The numbers above include users of educational programme at EATRIS, as the next generation is arguably the most important element of our stakeholder base. User numbers of EATRIS research services without education: [2016]: 29; [2017]: 43; [2018]: 23; [2019]: 30. It is important to realise that translational research within academia is still a 'strange animal'. Academics are rewarded for discovery, not validation and application. They also work in functional siloes, whereas translation needs teams from different areas and sectors to work together. Thus a lot of our work in EATRIS is in structuring of the community and building capacity, especially around improving quality and reproducibility, validation and subsequent making available of high value resources, and improving collaboration conditions. We see continued strong growth in our user base, and given that EATRIS has never had funds for trans-national access, our user base reflects true scientific added value. There was a reduction in 2018 users due to long term leave of our industry liaison manager, but growth is now back to original trends as that situation is resolved. Translational research has a much lower volume than basic research, as only a small percentage of basic research is of high enough quality and potential to develop towards application and patient benefit. Generally, projects take a lot of work just to get to initiation (20-100 person-hours at EATRIS to bring user and provider to project start, and no cost to user. Projects tend to be more complex and costly than basic research. Our range thus far has been €1.5k - €1.2million for a single project. In short: translation is few projects, high investment.

Number of Dutch users: Despite a lack of local funding for outreach, we have good user numbers from NL. However, with local investment we can truly maximize potential for NL researchers by making them aware of the high value services we provide. Right now we suffer from chronic under-visibility, even though we are part of Health-RI.

Application information

Year	Number of applications/requests		Number of approved applications/requests		Percentage of approved applications/requests to use (%)	
	NL	Other countries	NL	Other Countries	NL	Other Countries
2016	6	76	5	56	83	74
2017	15	91	12	64	80	75
2018	11	207	10	189	91	91
2019	27	400	25	386	93	96
2020	n/a	n/a	n/a	n/a	n/a	n/a

Sample information

Year	Number of sample requests		Number of approved sample requests		Rate of approval of sample requests (%)	
	NL	Other countries	NL	Other Countries	NL	Other Countries
2016	1	2	1	2	100	100
2017	2	8	2	8	100	100
2018	0	3	0	3	n/a	100
2019	0	4	0	4	n/a	100
2020	n/a	n/a	n/a	n/a	n/a	n/a

Comments by the RI:

Sample access is not our core business - most of the time we try to reroute users to BBMRI (samples) and ELIXIR (datasets) but we also do occasionally support users in such projects. Dutch number of sample requests: Health-RI in NL to support access to samples and data.

Data request information

Year	Number of data requests		Number of approved data requests		Rate of approval of data requests (%)	
	NL	Other countries	NL	Other Countries	NL	Other Countries
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	3	0	0	3	0	100
2019	0	0	0	0	0	0
2020	n/a	n/a	n/a	n/a	n/a	n/a

Comments by the RI:

Not EATRIS core business - data requested through CORBEL open call. Health-RI in NL to support access to samples and data.

Contributions provided by organisations or companies in the participating countries

Year	Contributions by organisations/companies (k€)		Dutch contributions provided (%)	
	NL	Other countries	Academic	Non-Academic
2016	44	0	0	100
2017	33	0	0	100
2018	24	22	48	52
2019	65	5	7	93
2020	n/a	n/a	n/a	n/a

Comments by the RI:

Most of the equipment deliveries etc is to the consortium members, not the ERIC. The above figures are specialised IT services and resources, as well as regulatory expertise needed for services delivery. NL: Our IT infrastructure is provided and maintained by NL supplier.

Total sum spent on other deliveries such as equipment, services and consumables

n/a

Dutch percentage out of total sum spent on other deliveries such as equipment, services and consumables:
n/a

Comments by the RI

We have no further specialised services/infrastructure than those above described

Income from user fees

Year	Income from user fees (k€)		Dutch user provided (%)	
	NL	Other countries	Academic	Non-Academic
2016	799	1220	43	57
2017	130	197	0	100
2018	1348	273	100	0
2019	2089	6443	28	72
2020	n/a	n/a	n/a	n/a

Comments by the RI:

Academic users generally 'pay' for services through grants - EATRIS service form part of a joint grant proposal. Industry users pay out of pocket. Income varies widely due to huge range of project costs and also goes with ebb and flow of grant cycle. Some years (e.g. 2017) have very few trans-national grant calls open. The vast majority of EATRIS income goes to the institutions, not the ERIC. NL institutions are a valuable part of our infrastructure offering. What we need now are local investments so that local users can be aware of EATRIS and make use of us. NL can help drive our user growth by making targeted investments!

Additional questions to the RI (2020)

What is the Dutch contribution to the RI?

In the EATRIS-GSK immune inflammation imaging hub, GSK (to 10 global pharmaceutical company) fully finances projects in 3 NL institutions to develop new imaging technologies. With no requirement for intellectual property, this pre-competitive initiative is unique in the world. Only Sweden participates besides NL, showing the global strength of NL imaging for drug development and translation. NL is leading in biomarkers and imaging for EATRIS and for instance through EATRIS-Plus project is developing tools of global relevance for personalised medicine development. EATRIS on its own and in collaboration with Health-RI has huge societal benefit due to our patient centric approach. All of our work is about bringing knowledge to society. All of our activities directly support the translation of a finding into a new personalised medicine, vaccine or diagnostic. To that end, everything we do is directly on the path to impact, and we are working hard to improve Europe's innovation capacity, seeking to break the innovation paradox in a highly complex field. Bio-pharma Industry - an €800 billion sector - in the early 2000s started leaving the early translation phase due to its complexity. EATRIS, with the support of Member States, has stepped in focus on getting innovation through that space, and we are showing great growth and potential to that end. However, we need to deepen our ties with the Member States and increase our capacities through national level investment, without which the EATRIS potential will not be maximised

Currently, are there any RI's that provide similar kinds of research infrastructure and services as yours in the world?

In EU Eurobioimaging for imaging, they have the same machines but do not do translational research, which requires strong regulatory, drug development, industry and intellectual property understanding to undertake such applied research. In short, they produce publications, EATRIS produces patient benefit; EUOpenscreen - we also have screening centres, but again focus on drug discovery and repurposing, putting us a little further downstream from EU-Opensreen. ECRIN - they only do multi-national trials. We help researchers safely progress from preclinical to clinical development, with specialisation in complex phase 0 and phase I projects (single country), imaging enabled to perform better dose-ranging, assess target engagement and understand pharmacodynamics in early stage of development. EX-EU - NIH NCATS in USA, AMED in Japan. We work closely with both in

Translation Together they are well funded (NCATS annual budget USD 600 million). There are other players globally but above 2 are most relevant.

What are the overlaps and what are the main differences? To which extent do you cooperate or compete?

For all infrastructures: EATRIS performs applied research only, facilitating innovation - we start at the publication and take that to the patient, whereas other RIs finish at the publication. In this way we are completely complementary to all other RIs and form a value chain from academia to patients and society. We engage patients, clinicians on a daily basis in our efforts to maximise turning EU research investments into impact on society. We also are heavily focused on quality and reproducibility, an area of critical need in biomedicine. Besides AMRI (see below) we work with EUOpenScreen, Instruct and EUBI and are developing MoUs with each. EATRIS, together with BBMRI and ECRIN has initiated a process to harmonize our strategies, supporting the development of cross-border policies that specifically focus on facilitating highly coordinated, standardised research that is underpinned by a strong quality framework. Our vision as Medical RIs moved us to create AMRI, The Alliance of Medical Research Infrastructures, a cooperative strategy by which we will create common services and joint initiatives, facilitating user access and defragmenting the current landscape of services provided to the ERA. AMRI represents a coordinated effort that will consolidate a translational pipeline in EU reassuring an efficient translational process by which the knowledge generated by science will result in the development of solutions for unmet medical needs. The main goal of AMRI is to co-create a space for cooperation respecting the individual identities of the different RIs. We have initiated a process that will mature during the next 18 months to develop common tools and facilitate the access to services in an efficient manner. Training and Education, as well as strong communication and dissemination policies are essential parts of the DNA of the alliance. During 2018-2020 the alliance has reinforced this cooperative strategy working together in the preparation of several proposals where the alliance has provided coordinated and complementary capacities to the research teams for building several successful proposals. Some key examples of this strategy are the participation of EATRIS together with BBMRI and/or ECRIN in flagship initiatives such as EOSC-Life, EU-PEARL, PERMIT or B1MG. This cooperative strategy is also extended to ELIXIR with whom we participate in several initiatives, project- and policy-related.

What are the RI's major educational and outreach activities?

1. Training programmes for the next generation of innovation leaders (PhD, Post-Docs)

- EATRIS has been offering yearly five-day introduction workshop to Translational Medicine for PhD and Postdocs since 2016, called "TMex, Translational Medicine Explained" (99% satisfaction rate).
- A similar introduction course will be offered in 2021 and 2022 on Advanced Therapies (ADVANCE project funded by Erasmus Plus programme)
- Fellowship programmes: EATRIS is also an associate partner, training provider to two ongoing Marie Skłodowska-Curie projects (funded by H2020): P2Med (Fellowship programme for personalised and precision medicine); and ARCAID (Amsterdam Rheumatology Center for Autoimmune Diseases).

2. Additional training workshops are delivered on a regular basis for senior researchers in many strategic areas of medicines development:

- Summer School for Personalised Medicine (three upcoming editions in 2021, 22 and 23)
- Regulatory workshop for vaccine development (2020, 2022)
- Yearly workshop on public-private collaboration best practices hosted by an EATRIS node
- Additional introductory workshops are also organised on a regular basis by the EATRIS national nodes

3. Online learning: EATRIS launched its own e-learning platform in fall 2019: "TransMed Academy"

- Open access learning platform featuring e-learning courses and webinars on translational medicine
- Since 2019, EATRIS offers regular webinar series on translational tools and technologies or major challenges in the field. All webinars are made available on "[TransMed Academy](#)" platform.

4. Internal training opportunities for the EATRIS nodes:

- Twice a year, EATRIS organises internal training for EATRIS nodes coordinators on success factors for nodes development (communication, business planning, service provision, etc.)

5. EATRIS organises one yearly event for all EATRIS members, to share best practices and foster collaboration opportunities. EATRIS also carries out a dynamic business development and outreach strategy, attending ~25 industry partnering events a year.