

# Annual Report 2022



**Eurotransplant**

*Cooperating saves lives*

# Contents

## Foreword

1. The Eurotransplant community
2. Eurotransplant: donation, allocation, transplantation and waiting lists
3. Report of the Board and the central office
4. Histocompatibility Testing
5. Reporting of non-resident transplants in Eurotransplant
6. Transplant programs and their delegates in 2022
7. Scientific output 2022
8. Eurotransplant personnel related statistics
9. Abbreviated financial statements

## List of abbreviations



This document is optimized  
for Acrobat Reader on desktop  
for best viewing experience.

[Download Acrobat Reader](#)

A high resolution version of this  
document is also available.

[Download high resolution pdf](#)

*All rights reserved. No part of this publication  
may be reproduced, stored in a retrieval system or  
transmitted, in any form or by any means, electronic,  
mechanical, photocopying or otherwise, without prior  
permission of Eurotransplant.*

*For permissions, please contact:*

[communication@eurotransplant.org](mailto:communication@eurotransplant.org)



# Foreword

It is our pleasure to present the annual report of Eurotransplant. Our report provides a comprehensive overview of the significant achievements, challenges and initiatives of Eurotransplant and its community in the past year. The report also includes important statistics on waiting list dynamics, donation rates, transplantations and more. For more detailed information visit our [online statics library](#).

The start of 2022 was erratic. Less donors were reported in January compared to the previous year. However, in February, the number of donors was at the same level as in 2021, with fewer donors being reported in the following months. A clear recovery was seen in the last 3 months of 2022. Despite the poor start we can report an increase of used donors of 2% (+ 41) and transplanted organs of 1% (+56).

## Virtual Crossmatch

In close cooperation with the Tissue Typing Advisory Committee (TTAC), IT development and medical staff worked on the prerequisites for introduction of the Virtual Crossmatch within Eurotransplant. With the implementation of Virtual Crossmatch in the allocation process in January 2023, unacceptable antigens can be listed for all 11 loci with the possibility to list alleles as unacceptable. In addition, a new reference panel on the allelic level for the calculation of virtual panel reactive antibodies (vPRA), as well as chance of an organ offer

was made available. The TTAC and the Eurotransplant Kidney Advisory Committee (ETKAC) worked on adapting the inclusion criteria for the Acceptable Mismatch (AM) program and setting up the Imlifidase AM program.

## Policy organ donors Sars-Cov 2 positive test

In cooperation with the competent authorities and organ procurement organizations, the Organ Process Chain Committee (OPCC), drafted the policy "Guidance for handling organ donors Sars-Cov 2 positive test (PCR)". This guideline contains the prerequisites and conditions under which these organ donors can be reported and what information is strongly recommended for the transplant centers to make a good risk assessment of the organ offer. This policy was published on March 8, 2022.

In the aftermath of the Sars-Cov 2 pandemic, transplant medicine gradually returned to the usual. After three years we were also able to organize an on-site Annual Meeting in The Netherlands where our community could meet again.

## Projects

Eurotransplant recognizes the importance of modern technology in streamlining its operations. We have made significant strides in the renewal of our IT systems, which will enable us to operate more efficiently and effectively in the years to come. In the near future, we also aim to provide enhanced data management

capabilities, thus improving the accessibility of the data for (authorized) researchers. Eurotransplant modernized its IT environment further, so that staff members can safely work anywhere and anytime using secure systems and data connections. This of course does not apply to our 24/7 allocation staff who are always on call in our Leiden office.

As we look to the future, Eurotransplant remains committed to progress in the field of organ allocation pursuing evidence based to improve graft and patient survival. This work would not be possible without the dedication of our staff, organ advisory committees, scientific societies, the collaboration of our member countries, transplant centers and donor hospitals. We are grateful for the cooperation and solidarity in the Eurotransplant community, and we thank all our partners and stakeholders for their commitment with the Eurotransplant mission.

Kind regards,

**Peter Branger,**  
General Director

**Serge Vogelaar,**  
Medical Director



# 1 The Eurotransplant community





# The Eurotransplant community

The Stichting Eurotransplant International Foundation is a non-profit international organization that facilitates allocation and cross border exchange of deceased donor organs for its members: Austria, Belgium, Croatia, Germany, Hungary, Luxembourg, the Netherlands, and Slovenia. In this international collaborative framework, the participants include all transplant hospitals, tissue typing laboratories and hospitals where organ donations take place. The Eurotransplant region is serving a total population of around 137 million people. The organizational structure is democratic, with a Supervisory Board, Board of Management, Assembly, two advisory Councils and eight Advisory Committees, of which four organ specific (kidney, liver/intestine, heart/lung, pancreas) and four in charge of organ procurement, tissue typing, ethics and registry. With this structure, the national authorities in the member countries, the national transplant societies and the Eurotransplant transplant programs have input in the policy and practice of Eurotransplant International Foundation. Information on the current organizational structure can be found on the [Eurotransplant website](#).

## 1.1 Mission

Organ transplantation offers lifesaving and quality-of-life enhancing treatment options to patients with end-stage organ failure. Aiming to fulfill this potential, Eurotransplant was established and acts as a mediator

between donor hospitals and transplant centers, for the benefit of such patients.

As such, Eurotransplant manages the complex process of achieving the best possible match between available donor organs and patients on the transplant waiting list. Eurotransplant acts transparently and in accordance with the regulations and ethical principles of the European Union. This means that Eurotransplant fully complies with the national legislation of the Member States. The Eurotransplant Foundation is actively involved in developing best practice recommendations and policies to further improve organ allocation and transplantation results, based on robust data collection and state-of-the-art scientific research.

To achieve its mission Eurotransplant has set the following goals:

- To achieve an optimal use of available donor organs.
- To secure a transparent, objective, and fair allocation system, in compliance with national rules, based upon medical and ethical criteria.
- To support donor procurement to increase the supply of donor organs and tissues.
- To further improve the results of transplantation through collection and evaluation of donor, recipient, allocation, transplantation and follow-up data, scientific research and to publish and present these results.
- The promotion, support and coordination of organ donation and transplantation in the broadest sense of terms.

More information on Eurotransplant's aims can be found on the [Eurotransplant website](#).

## 1.2 Method of working

The allocation of organs is an information-intensive process which depends on an effective and efficient information and communication system. Therefore, Eurotransplant continuously develops and maintains information systems that are required to support this process. These systems process the vast amount of information, support the analysis of processes, of allocation rules and of other information and transform this into effective information systems. It is an integrated automated system designed to collect, store, and share information pertinent to the services provided by Eurotransplant.

Eurotransplant adequately tests all procedures and systems and maintains a quality system to assure this.

Eurotransplant is committed to protecting the privacy of individuals and ensuring the security of their personal health information. It has designed a privacy and security framework which enables an effective coordination of privacy and security policies. The Information Security Policy and the data policies are living documents which are updated as the privacy and security programs evolve over time. The documents are available on the [Eurotransplant website](#).

## 1.3 Finances

The activities of Eurotransplant are financed by the health insurance companies in the participating countries. The organization's budget and the resulting registration fees are negotiated annually with the financiers and/or the national competent authorities.



# 2 Eurotransplant: donation, allocation, transplantation and waiting lists



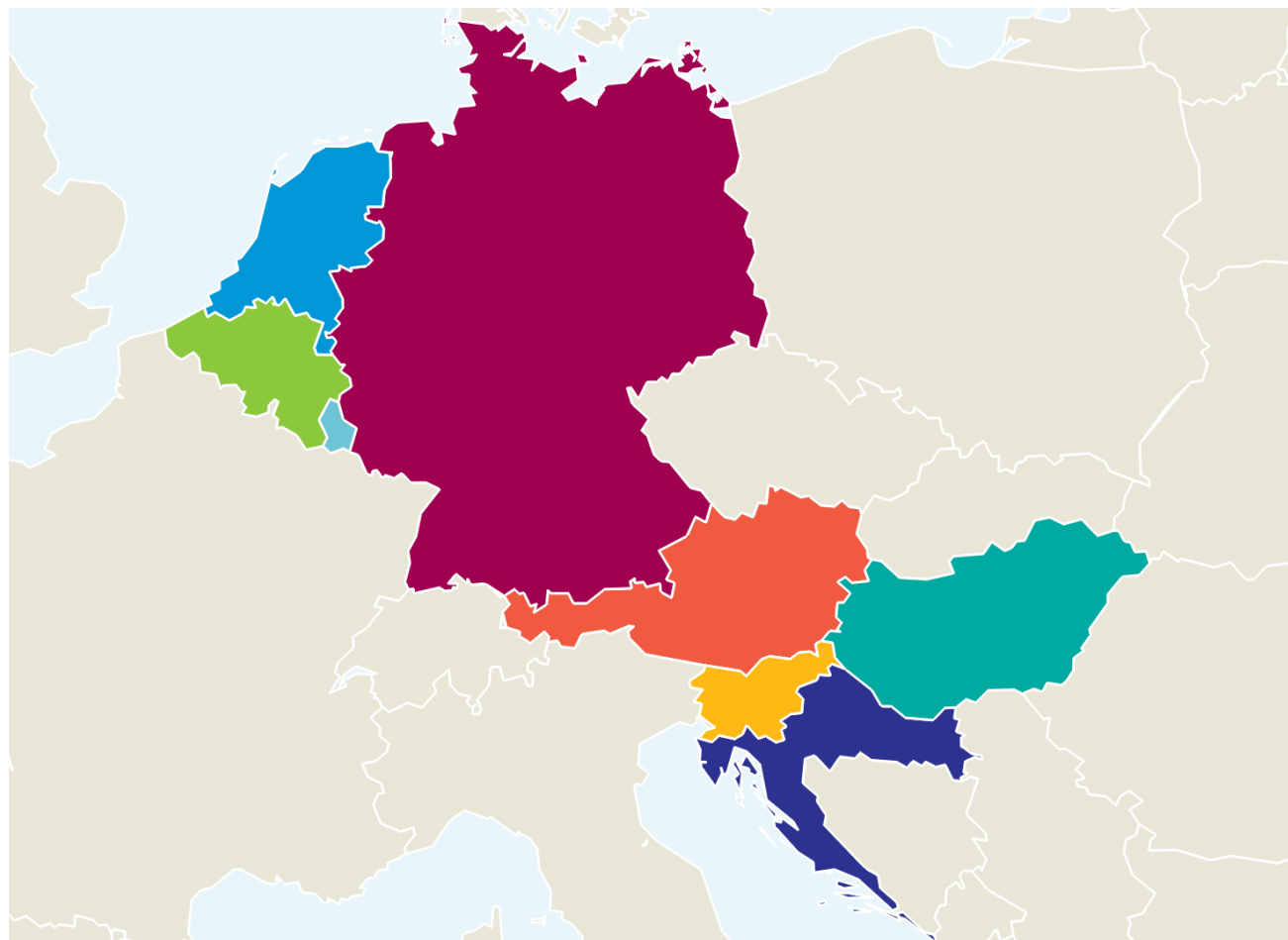
# Eurotransplant: donation, allocation, transplantation and waiting lists

This chapter presents a statistical overview of the donation, allocation, transplantation and waiting list management activities of Eurotransplant and the member states in 2022, along with historical trends.

This Annual Report presents key statistics per country and per organ. Detailed information is publicly available on-line in the [Eurotransplant Statistics Library](https://statistics.eurotransplant.org) at [statistics.eurotransplant.org](https://statistics.eurotransplant.org) (Eurotransplant members have access to more specific information).

'Non-ET' in this chapter refers to other countries (of which 17 over the years) with which Eurotransplant has an agreement whereby organs which cannot be allocated in a country can be offered to a suitable recipient in another country.

## Eurotransplant Member States



A - Austria

B - Belgium

D - Germany

H - Hungary

HR - Croatia

L - Luxembourg

NL - Netherlands

SLO - Slovenia

## Clickable table of contents

Below a clickable table of contents which facilitates in direct navigation to specific statistics.

### 2.1 Deceased donors used for transplantation

- 2.1.1 Deceased donors (any organ) used for transplant in Eurotransplant in 2022, by donor country
- 2.1.2 Deceased donors (any organ) used for transplant in Eurotransplant in 2022, by donor country
- 2.1.3 Deceased donors used for transplant in Eurotransplant in 2022, by donor country
- 2.1.4 Deceased donors used for transplant in Eurotransplant, by organ
- 2.1.5 Deceased donors (any organ) used for transplant in Eurotransplant, by donor country
- 2.1.6 Deceased donors used for transplant in Eurotransplant, by donor country

### 2.2 Donation rate (deceased donors)

- 2.2.1 Population (millions) of Eurotransplant member states in 2022
- 2.2.2 Deceased donors used for transplant in Eurotransplant in 2022, per million population, by donor country
- 2.2.3 Deceased donors used for transplant in Eurotransplant in 2022, by donor country
- 2.2.4 Deceased donors used for transplant in Eurotransplant, per million population, by organ
- 2.2.5 Deceased donors (any organ) used for transplant in Eurotransplant, per million population, by donor country

### 2.3 Donor age (deceased donors)

- 2.3.1 Age distribution of deceased donors used for transplant (any organ) in Eurotransplant in 2022, by donor country
- 2.3.2 Age distribution of deceased donors used for transplant (any organ) in Eurotransplant in 2022, by donor country
- 2.3.3 Median age (years) of deceased donors used for transplant in Eurotransplant in 2022, by donor country, by organ
- 2.3.4 Median age (years) of deceased donors used for transplant in Eurotransplant, by organ
- 2.3.5 Median age (years) of deceased donors used for transplant (any organ) in Eurotransplant, by donor country

### 2.4 DBD/DCD donation

- 2.4.1 DBD/DCD donors (any organ) used for transplant in Eurotransplant in 2022, by donor country
- 2.4.2 DBD/DCD donors used for transplant in Eurotransplant in 2022, by donor country, by organ
- 2.4.3 DCD donors (any organ) used for transplant in Eurotransplant, by donor country

### 2.5 Organ allocation

- 2.5.1 Allocation of deceased donor organs in Eurotransplant in 2022
- 2.5.2 Allocation of deceased donor organs in Eurotransplant in 2022

### 2.6 International organ exchange

- 2.6.1 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin
- 2.6.2 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin
- 2.6.3 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin - special patient groups
- 2.6.4 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin - special patient groups

### 2.7 Transplants (deceased donor)

- 2.7.1 Organs transplanted (deceased donor) in Eurotransplant in 2022, by transplant country
- 2.7.2 Organs transplanted (deceased donor) in Eurotransplant in 2022, by transplant country
- 2.7.3 Transplants (deceased donor) in Eurotransplant in 2022, by transplant country, by organ combination
- 2.7.4 Transplants (deceased donor) in Eurotransplant, by organ type
- 2.7.5 Transplants (deceased donor, any organ) in Eurotransplant, by transplant country
- 2.7.6 Transplants (deceased donor) in Eurotransplant, by transplant country

### 2.8 Transplants (living donor)

- 2.8.1 Kidney transplants in Eurotransplant in 2022, by country, by donor type
- 2.8.2 Liver transplants in Eurotransplant in 2022, by country, by donor type
- 2.8.3 Transplants (living donor) in Eurotransplant in 2022, by country
- 2.8.4 Transplants (living donor) in Eurotransplant, by organ
- 2.8.5 Kidney transplants (living donor) in Eurotransplant, by country
- 2.8.6 Liver transplants (living donor) in Eurotransplant, by country

### 2.9 Active waiting list

- 2.9.1 Active waiting lists in Eurotransplant at year-end 2022, by country
- 2.9.2 Active waiting lists in Eurotransplant at year-end 2022, by country
- 2.9.3 Active waiting lists in Eurotransplant, by organ
- 2.9.4 Active waiting list (any organ) in Eurotransplant, by country
- 2.9.5 Active waiting lists in Eurotransplant, by country

### 2.10 Waiting list registrations

- 2.10.1 Waiting list registrations in Eurotransplant in 2022, by country
- 2.10.2 Waiting list registrations in Eurotransplant in 2022, by country
- 2.10.3 Repeat waiting list registrations in Eurotransplant in 2022, by country
- 2.10.4 Waiting list registrations in Eurotransplant, by organ
- 2.10.5 Waiting list (any organ) registrations in Eurotransplant, by country
- 2.10.6 Waiting list registrations in Eurotransplant, by country

### 2.11 Waiting list removals

#### (deceased or unfit for transplant)

- 2.11.1 Waiting list removals (deceased or unfit) in Eurotransplant in 2022, by country
- 2.11.2 Waiting list removals (deceased or unfit) in Eurotransplant in 2022, by country
- 2.11.3 Waiting list removals (deceased or unfit) in Eurotransplant, by organ
- 2.11.4 Waiting list (any organ) removals (deceased or unfit) in Eurotransplant, by country

### 2.12 Waiting list dynamics

- 2.12.1 Kidney waiting list dynamics in Eurotransplant
- 2.12.2 Heart waiting list dynamics in Eurotransplant
- 2.12.3 Lung waiting list dynamics in Eurotransplant
- 2.12.4 Liver waiting list dynamics in Eurotransplant
- 2.12.5 Pancreas waiting list dynamics in Eurotransplant

### 2.13 Waiting list outcome

- 2.13.1 Kidney waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome
- 2.13.2 Heart waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome
- 2.13.3 Lung waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome
- 2.13.4 Liver waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome
- 2.13.5 Pancreas waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome
- 2.13.6 Median time (in months) to transplant (deceased donor) in Eurotransplant by year of transplant, by organ



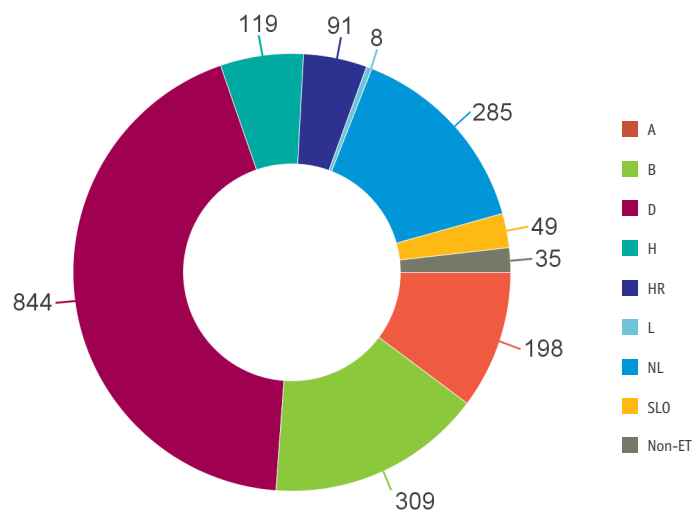
## 2.1 Deceased donors used for transplantation

Eurotransplant reports on the number of donors used, or Utilized donors, where at least one organ has been used for transplantation.

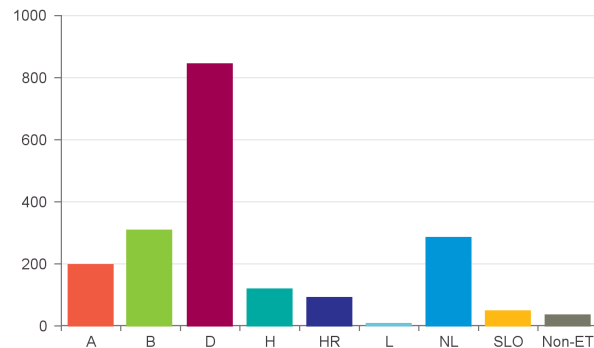
Eurotransplant does not report on the number of Actual donors, where an organ has been recovered for the purposes of transplantation, but not necessarily transplanted. The number of Actual donors is slightly higher than the number of Utilized donors.

Donors are reported by the year in which the donor was reported to Eurotransplant for organ allocation. Transplants are reported by the year in which the transplant took place.

### 2.1.1 Deceased donors (any organ) used for transplant in Eurotransplant in 2022, by donor country



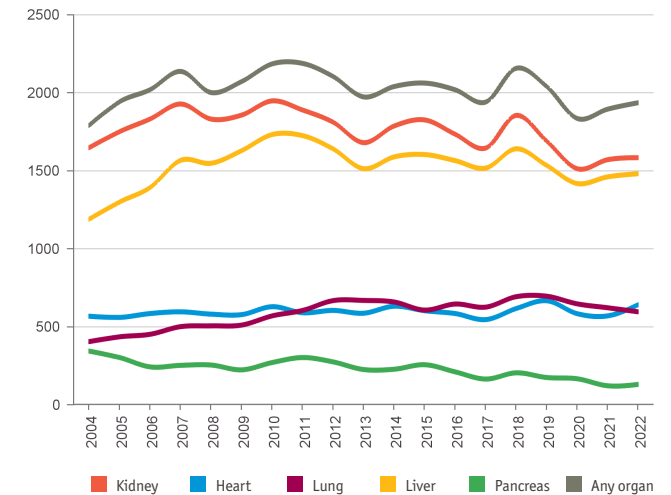
### 2.1.2 Deceased donors (any organ) used for transplant in Eurotransplant in 2022, by donor country



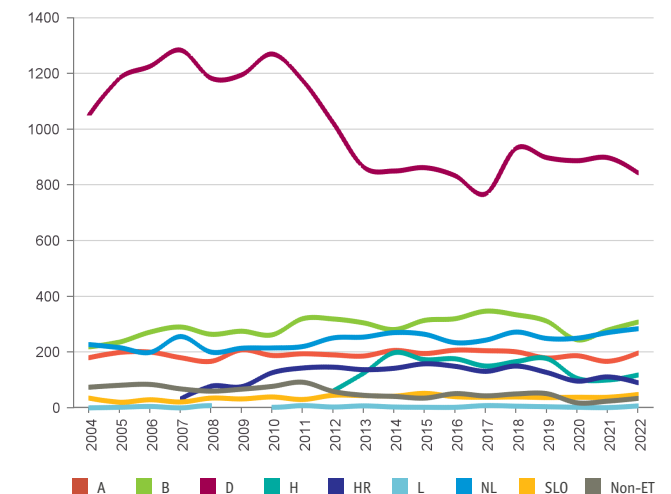
### 2.1.3 Deceased donors used for transplant in Eurotransplant in 2022, by donor country

	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
Kidney	157	227	734	102	64	8	255	38	1	1586
Heart	71	70	311	50	34	4	59	24	21	644
Lung	71	91	242	24	18	2	118	20	12	598
Liver	152	269	656	79	87	7	196	34	3	1483
Pancreas	17	24	41	4	6	2	38	1		133
Intestine		1	2		1	1	1			6
Any organ	198	309	844	119	91	8	285	49	35	1938

### 2.1.4 Deceased donors used for transplant in Eurotransplant, by organ



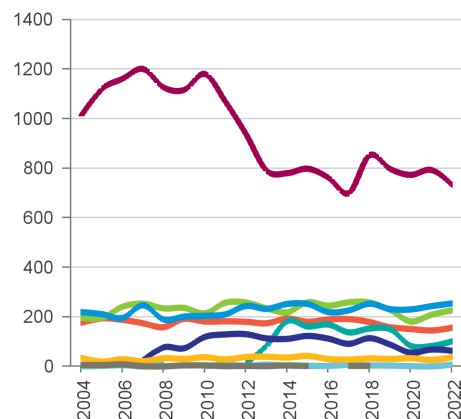
### 2.1.5 Deceased donors (any organ) used for transplant in Eurotransplant, by donor country



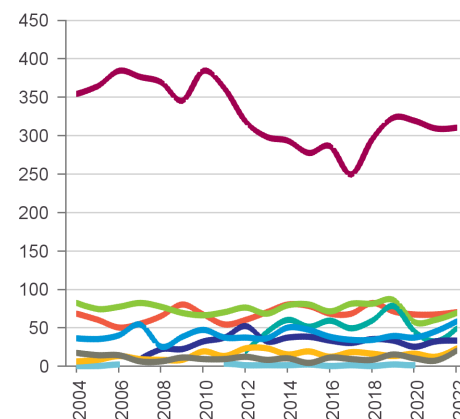
### 2.1.6 Deceased donors used for transplant in Eurotransplant, by donor country



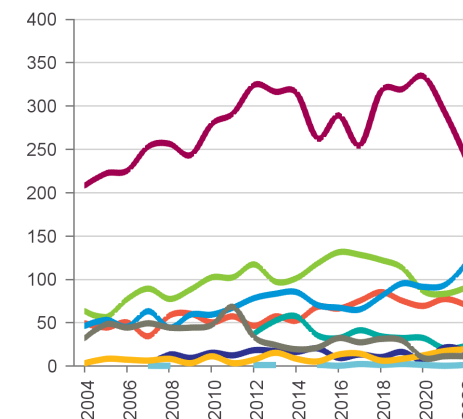
#### Kidney donors



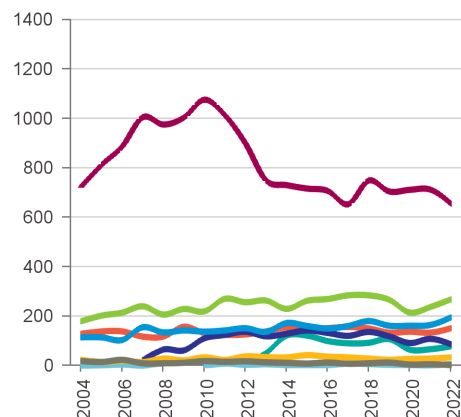
#### Heart donors



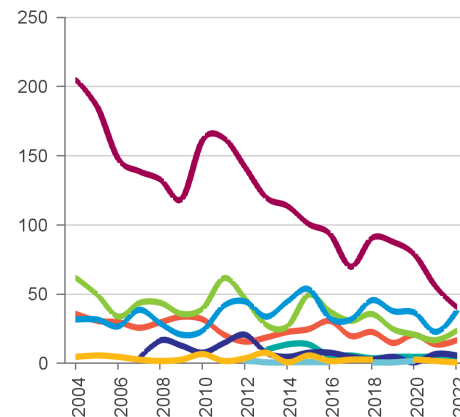
#### Lung donors



#### Liver donors



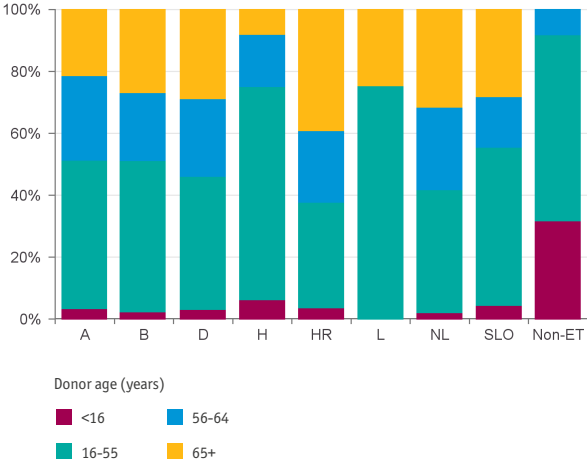
#### Pancreas donors





## 2.3 Donor age (deceased donors)

### 2.3.1 Age distribution of deceased donors used for transplant (any organ) in Eurotransplant in 2022, by donor country



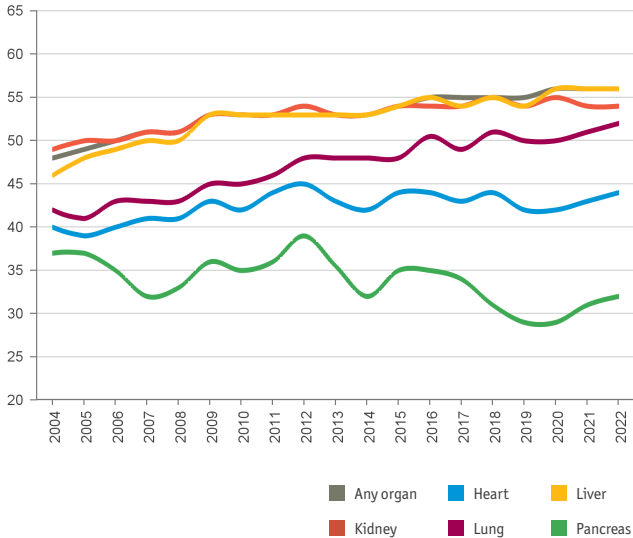
### 2.3.2 Age distribution of deceased donors used for transplant (any organ) in Eurotransplant in 2022, by donor country

Donor age (years)	A	B	D	H	HR	L	NL	SLO	Non-ET	All-ET
<16	6	6	23	7	3	5	2	11	63	
16-55	95	151	363	82	31	6	113	25	21	887
56-64	54	68	212	20	21		76	8	3	462
65+	43	84	246	10	36	2	91	14		526
Total	198	309	844	119	91	8	285	49	35	1938

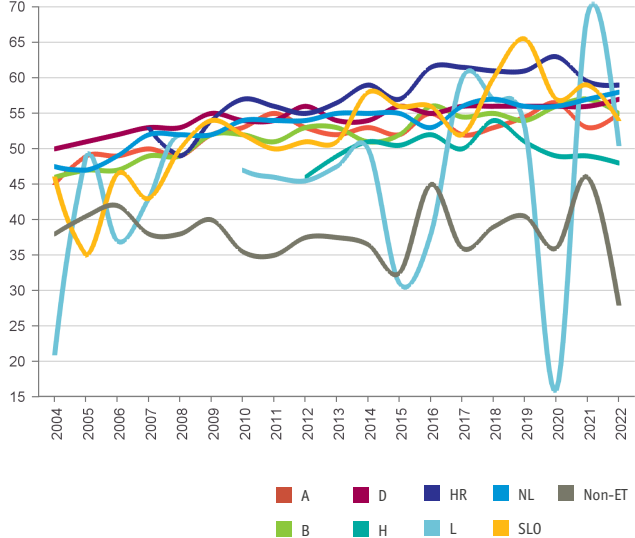
### 2.3.3 Median age (years) of deceased donors used for transplant in Eurotransplant in 2022, by donor country, by organ

Organ	A	B	D	H	HR	L	NL	SLO	Non-ET	All-ET
Kidney	53	51	56	47	56	50.5	57	49	0.4	54
Heart	43	42	47	40	44	41	40	41	20	44
Lung	52	53	54	42	46	59	56	44	51	52
Liver	55	55	57	47	60	50	57	52	2	56
Pancreas	32	38	31	41	16	41	28	33		32
Any organ	55	55	57	48	59	51	58	54	28	56

### 2.3.4 Median age (years) of deceased donors used for transplant in Eurotransplant, by organ



### 2.3.5 Median age (years) of deceased donors used for transplant (any organ) in Eurotransplant, by donor country





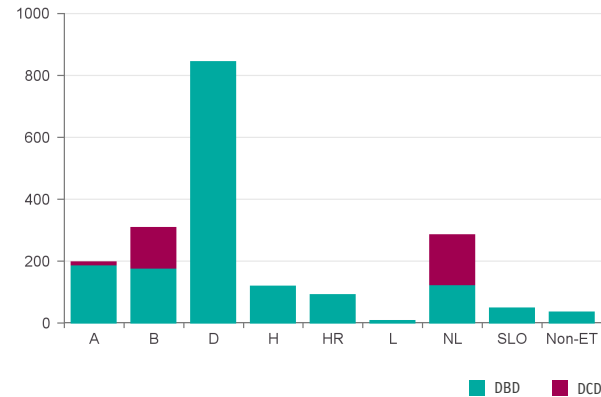
## 2.4 DBD/DCD donation

**DBD** = donation after brain death  
(Heart beating)

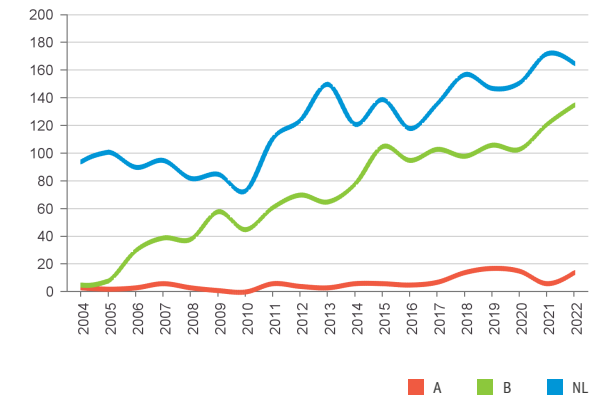
**DCD** = donation after circulatory death  
(Non-heart beating)

(DCD donation and transplantation within Eurotransplant is only performed in Austria, Belgium and the Netherlands)

2.4.1 DBD/DCD donors (any organ) used for transplant in Eurotransplant in 2022, by donor country



2.4.3 DCD donors (any organ) used for transplant in Eurotransplant, by donor country



2.4.2 DBD/DCD donors used for transplant in Eurotransplant in 2022, by donor country, by organ

Deceased donors	A	B	D	H	HR	L	NL	SLO	Non-ET	All-ET
DCD kidney	10	91					152			253
DCD heart	1	7					17			25
DCD lung	4	32					61			97
DCD liver	6	116					89			211
DCD pancreas	1	2					14			17
DCD any organ	14	135					165			314
DBD any organ	184	174	844	119	91	8	120	49	35	1624

## 2.5 Organ allocation

Organs deemed suitable for transplantation are reported to Eurotransplant for allocation to a suitable recipient. At any stage in the reporting, offering and accepting process, an organ can still be found to be unsuitable for transplantation.

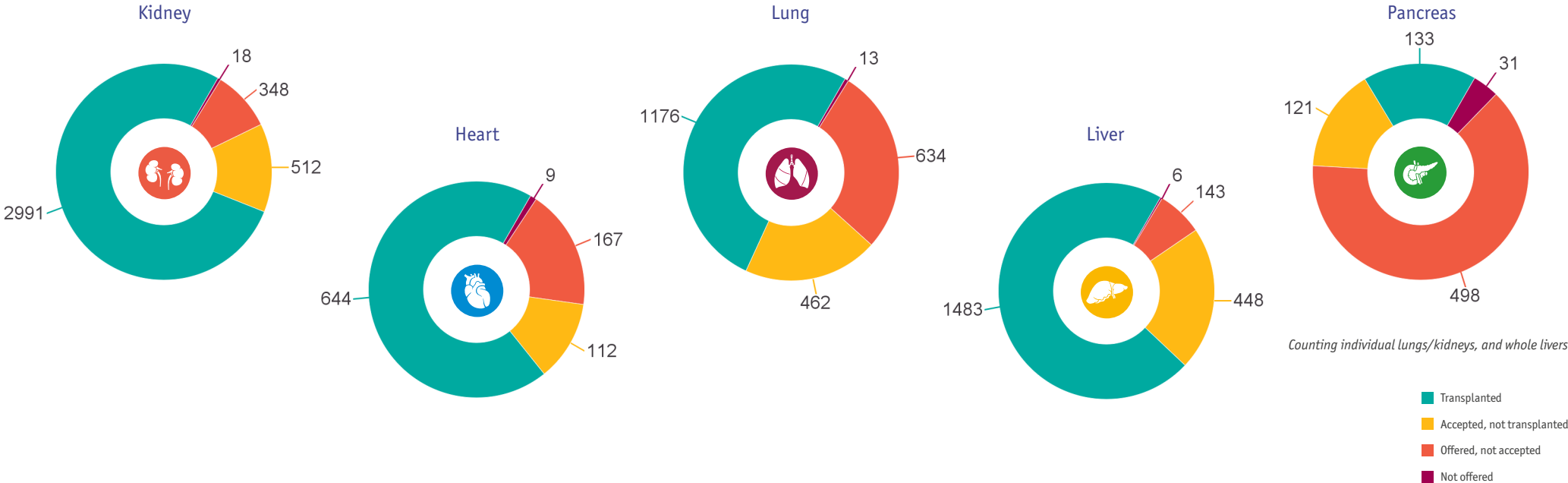
If the standard allocation procedure is not successful, then a 'center rescue' procedure is started, where local transplant centers competitively select a suitable recipient.

### 2.5.2 Allocation of deceased donor organs in Eurotransplant in 2022

	Donors reported	Organs reported	Organs transplanted	% Organs transplanted	Rescue allocations	% Rescue allocation
<b>Kidney</b>	1952	3869	2991	77%	369	12%
<b>Heart</b>	932	932	644	69%	149	23%
<b>Lung</b>	1148	2285	1176	51%	228	19%
<b>Liver</b>	2080	2080	1483	71%	261	18%
<b>Pancreas</b>	783	783	133	17%	21	16%
<b>Any organ</b>	2295	9949	6427	65%	1028	16%

*Counting by year of donor registration*

#### 2.5.1 Allocation of deceased donor organs in Eurotransplant in 2022



2.6 International organ exchange

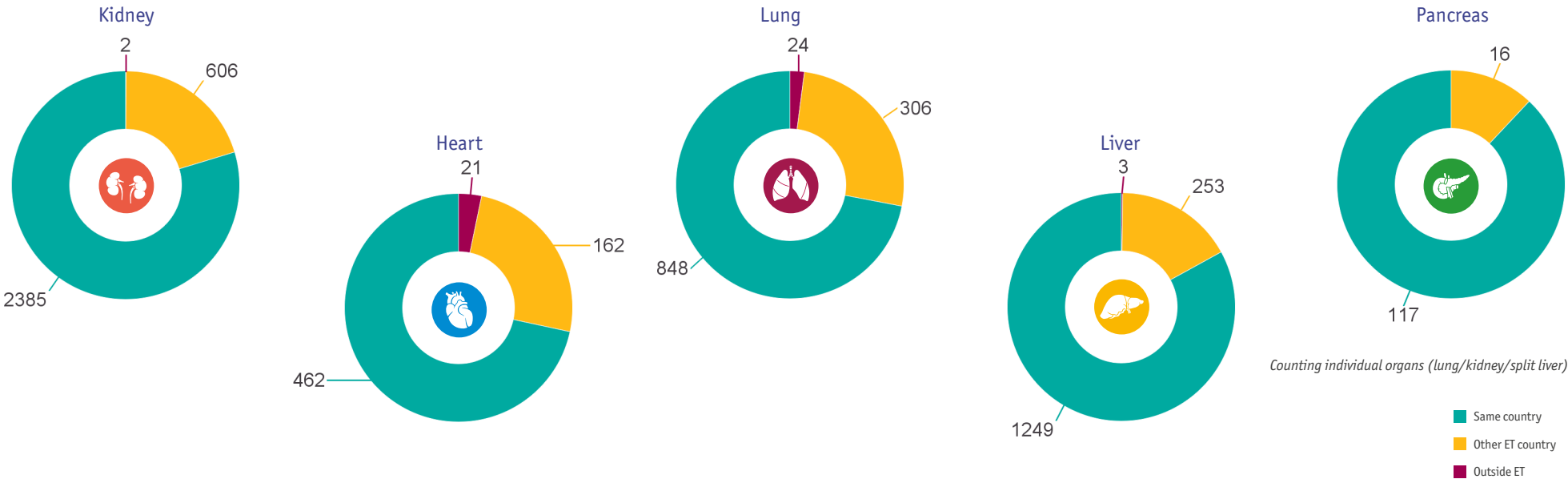
Donor organs are often transplanted in another Eurotransplant member state. This is determined by the Eurotransplant matching algorithms, which are based on rules specified by the organ advisory committees and agreed upon by the competent authorities of the Eurotransplant member states. Cross border organ exchange primarily concerns patients with a high urgency status, pediatric patients, immunized kidney patients, and kidney patients with a ‘000-mismatch’ HLA typing with the donor.

2.6.2 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin

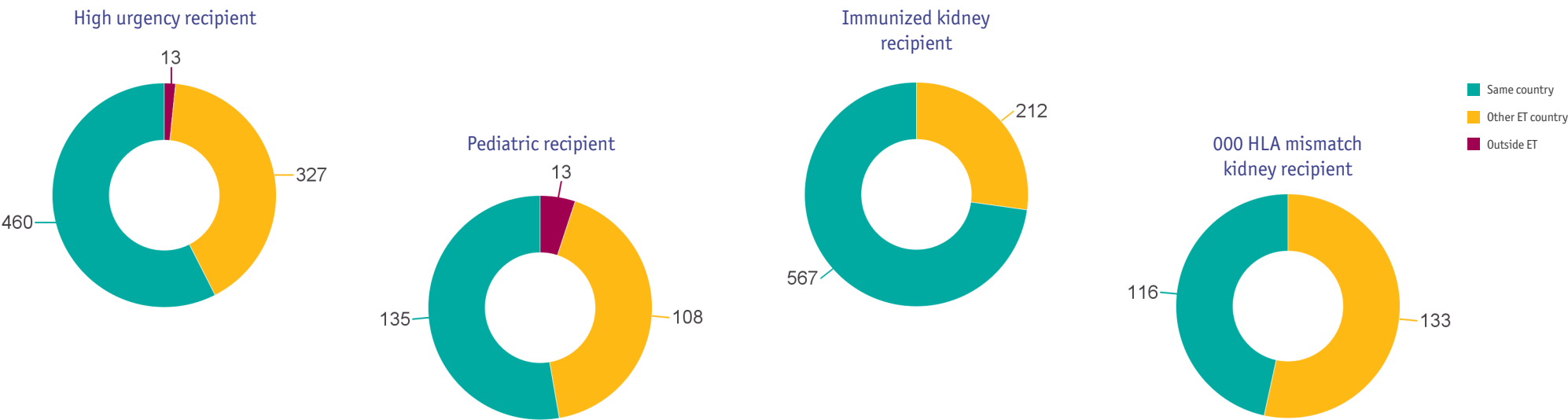
Organ	Same country	Other ET country	Outside ET	Total
Kidney	2385	606	2	2993
Heart	462	162	21	645
Lung	848	306	24	1178
Liver	1249	253	3	1505
Pancreas	117	16		133
Intestine	3	3		6
Total	5064	1346	50	6460

Counting by year of transplant

2.6.1 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin



2.6.3 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin - special patient groups



2.6.4 Organs transplanted (deceased donor) in Eurotransplant in 2022, by donor origin - special patient groups

Patient group	Same country	Other ET country	Outside ET	Total transplants
High urgency	460	327	13	800
Pediatric	135	108	13	256
Immunized (kidney)	567	212		779
000 HLA mismatches (kidney)	116	133		249

Counting individual organs (lung/kidney/split liver). 'High urgency' includes High LAS.



2.7 Transplants (deceased donor)

Transplants are reported by the year in which the transplant is performed, which can sometimes differ from the year the donor was reported.

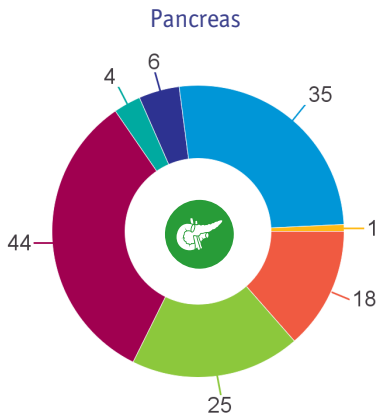
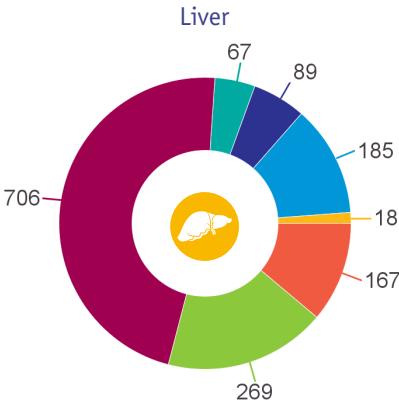
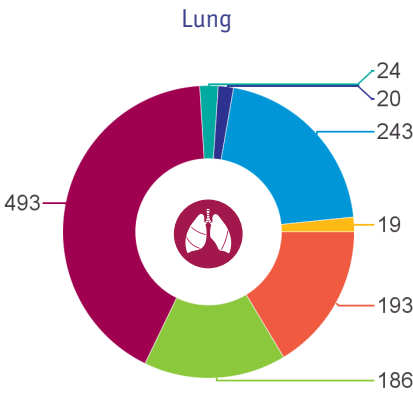
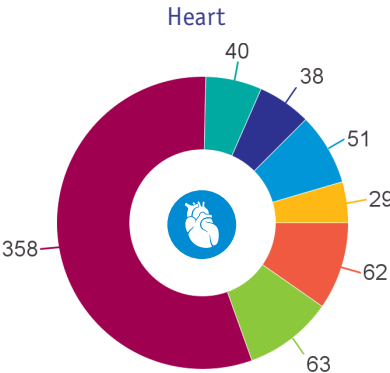
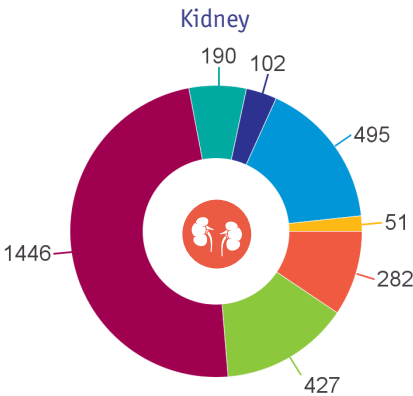
2.7.2 Organs transplanted (deceased donor) in Eurotransplant in 2022, by transplant country

Organ type	A	B	D	H	HR	NL	SLO	Non-ET	Total
Kidney	282	427	1446	190	102	495	51		2993
Heart	62	63	358	40	38	51	29	4	645
Lung	193	186	493	24	20	243	19		1178
Liver	167	269	706	67	89	185	18	4	1505
Pancreas	18	25	44	4	6	35	1		133
Intestine		2	2		1	1			6
Total	722	972	3049	325	256	1010	118	8	6460

Counting each individual organ (lung/kidney/split liver), multiple organ transplants are counted for each organ type

2.7.1 Organs transplanted (deceased donor) in Eurotransplant in 2022, by transplant country\*

\* no active transplant program in Luxembourg in 2022



Counting each individual organ (lung/kidney/split liver)

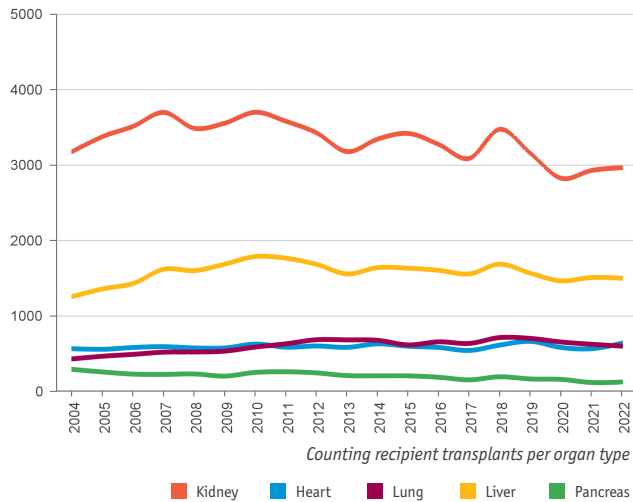


## 2.7.3 Transplants (deceased donor) in Eurotransplant in 2022, by transplant country, by organ combination

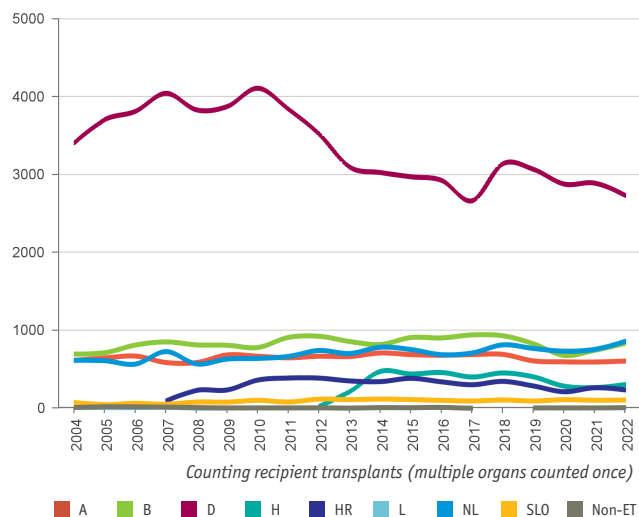
Organ combination	A	B	D	H	HR	NL	SLO	Non-ET	Total
kidney	258	385	1367	181	92	466	47		2796
kidneys en-bloc	1	4	15			3			23
heart	60	60	353	38	38	49	27	4	629
lung	11	4	15			1	1		32
lungs	90	90	232	12	10	120	9		563
liver	157	245	649	64	84	182	17	4	1402
split liver	5	2	41						48
pancreas	1		3			5			9
pancreas islets		7				9			16
heart + lungs	1		5			1			7
heart + liver		1				1			2
heart + kidney	1	2		2			2		7
lungs + liver		1	2						3
liver + pancreas			1						1
liver + pancreas + intestine		1	2		1				4
liver + kidney	5	19	10	3	4	2	1		44
split liver + kidney			1						1
pancreas + kidney	17	13	38	4	5	21	1		99
pancreas + intestine		1							1
intestine						1			1
Total	607	835	2734	304	234	861	105	8	5688

Counting recipient transplants (multiple organs counted once)

### 2.7.4 Transplants (deceased donor) in Eurotransplant, by organ type



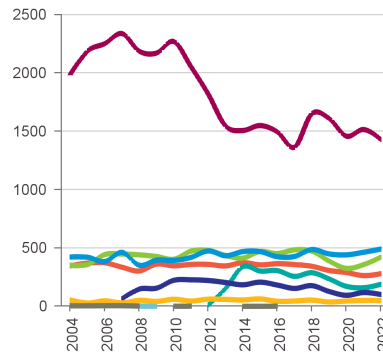
### 2.7.5 Transplants (deceased donor, any organ) in Eurotransplant, by transplant country



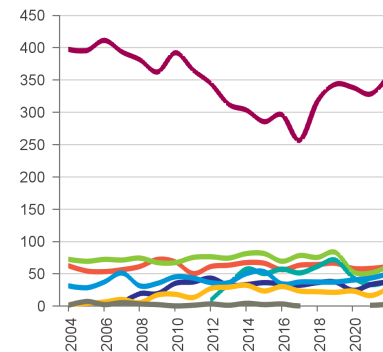
### 2.7.6 Transplants (deceased donor) in Eurotransplant, by transplant country



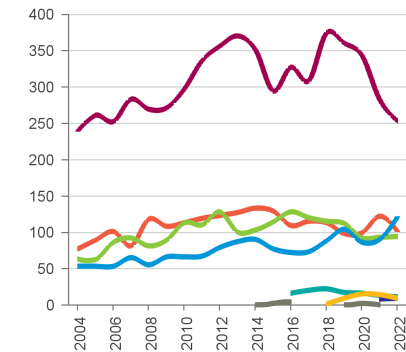
Kidney



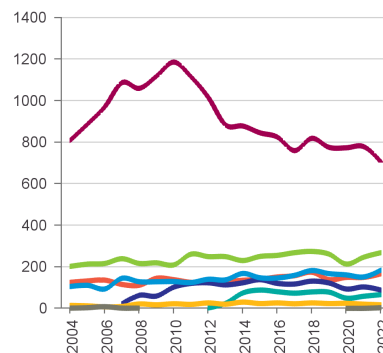
Heart



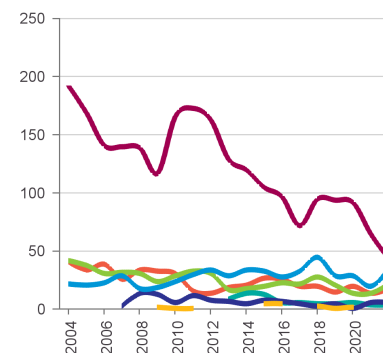
Lung



Liver



Pancreas



Counting recipient transplants per organ type

Legend: A, B, D, H, HR, L, NL, SLO, Non-ET

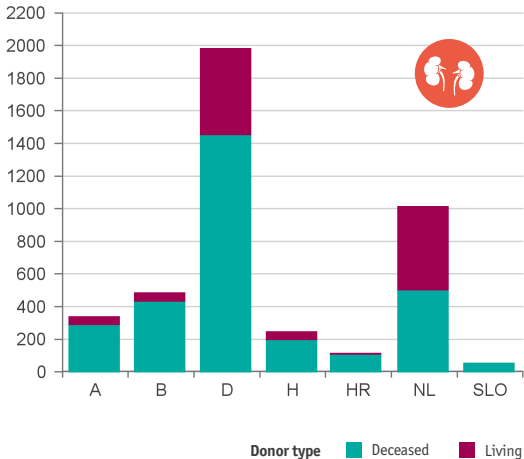
## 2.8 Transplants (living donor)

Living donor organs are not allocated by Eurotransplant, but are regulated by the transplant center and national transplant organizations. However, information on all living donor transplants in the Eurotransplant member states are recorded at Eurotransplant. Living donor transplant recipients are registered on the Eurotransplant waiting lists.

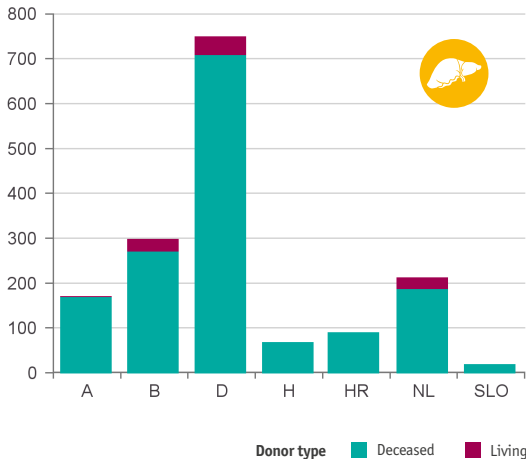
Most common living donor transplants are kidney and liver (partial/domino). Also possible is a lung (lobe) living donor transplant, of which there were 15 in the period 2000-2022.

Occasionally a transplant recipient's own heart or liver is suitable for and transplanted into another recipient. This is known as a living donor domino transplant. In the period 2000-2022 there were 6 domino heart transplants, and 160 domino liver transplants.

2.8.1 Kidney transplants in Eurotransplant in 2022, by country, by donor type



2.8.2 Liver transplants in Eurotransplant in 2022, by country, by donor type

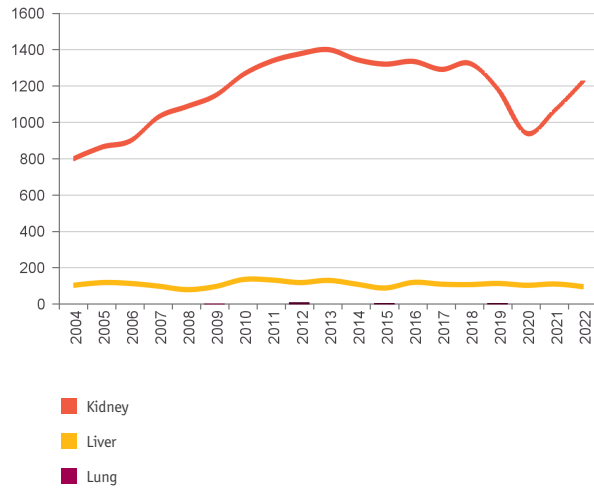


2.8.3 Transplants (living donor) in Eurotransplant in 2022, by country

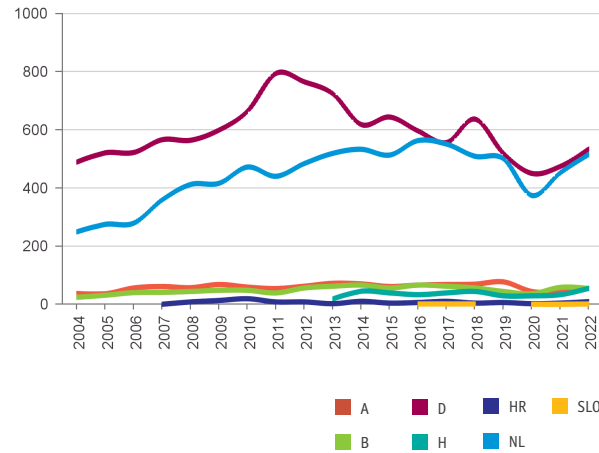
Organ	A	B	D	H	HR	NL	SLO	Total
Kidney	55	55	535	56	10	516	2	1229
Liver	2	28	42			26		98
Total	57	83	577	56	10	542	2	1327



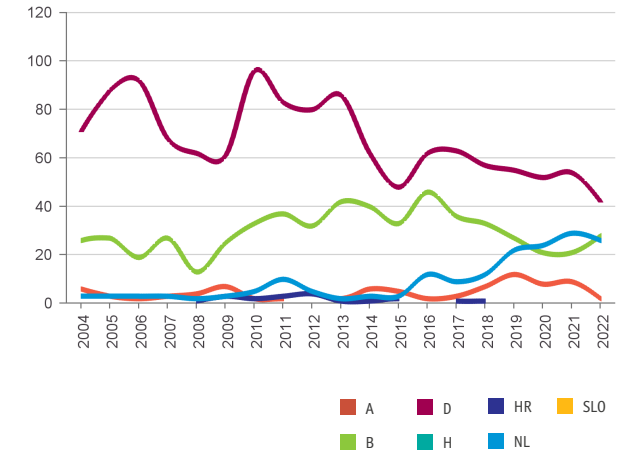
#### 2.8.4 Transplants (living donor) in Eurotransplant, by organ



#### 2.8.5 Kidney transplants (living donor) in Eurotransplant, by country



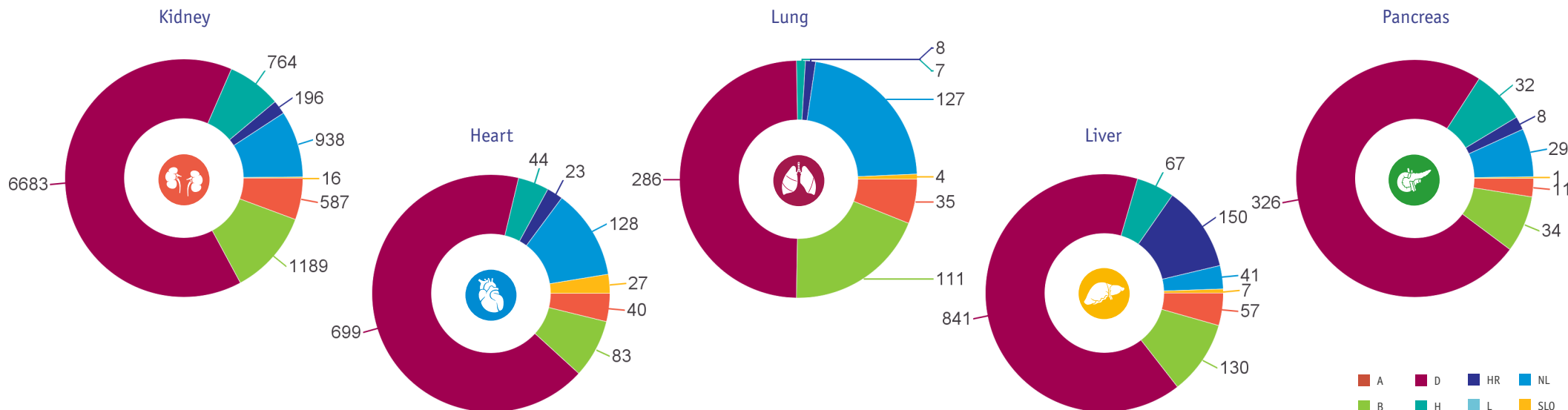
#### 2.8.6 Liver transplants (living donor) in Eurotransplant, by country



## 2.9 Active waiting list

### 2.9.1 Active waiting lists in Eurotransplant at year-end 2022, by country\*

\* no active transplant program in Luxembourg in 2022



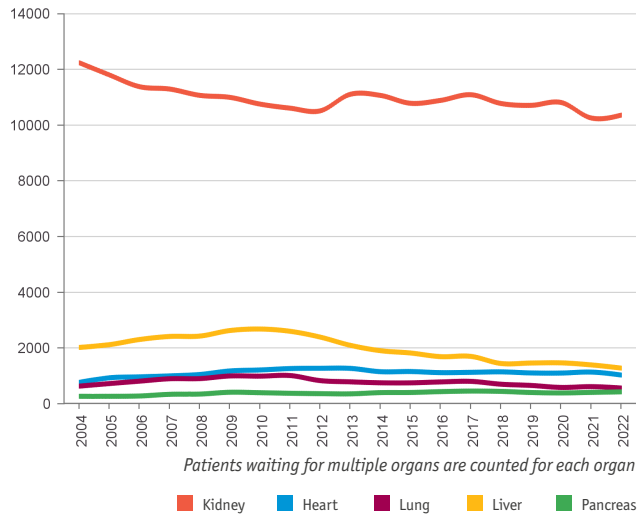
### 2.9.2 Active waiting lists in Eurotransplant at year-end 2022, by country

Waiting list type	A	B	D	H	HR	NL	SLO	Total
Kidney	587	1189	6683	764	196	938	16	10373
Heart	40	83	699	44	23	128	27	1044
Lung	35	111	286	7	8	127	4	578
Liver	57	130	841	67	150	41	7	1293
Pancreas	11	34	326	32	8	29	1	441
Intestine	1	5	4					10
<b>Total</b>	<b>731</b>	<b>1552</b>	<b>8839</b>	<b>914</b>	<b>385</b>	<b>1263</b>	<b>55</b>	<b>13739</b>
<b>Patients</b>	<b>717</b>	<b>1504</b>	<b>8505</b>	<b>877</b>	<b>375</b>	<b>1247</b>	<b>52</b>	<b>13277</b>

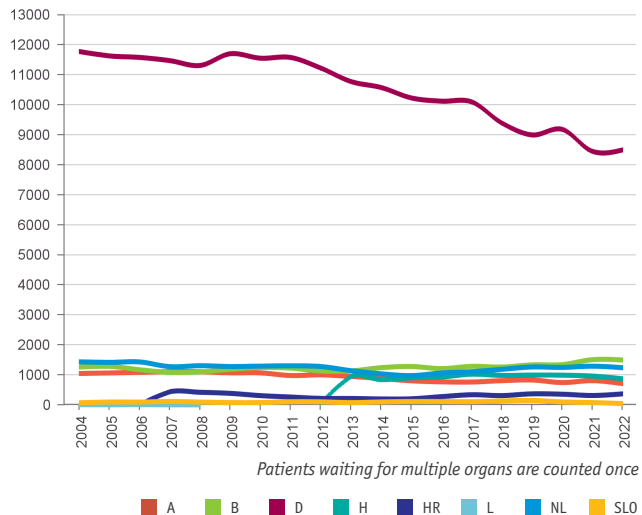
Patients waiting for multiple organs are counted for each organ type

Lung transplant patients from Croatia, Hungary and Slovenia were in the past registered on the waiting list and transplanted in Vienna, Austria. Hungary started performing lung transplants in 2016, and Slovenia in 2018. Since September 2020 the waiting list administration and transplantation is fully managed by these three countries.

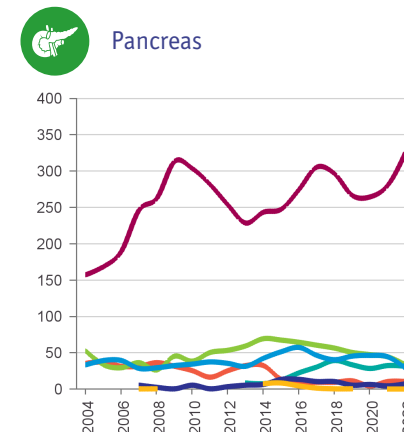
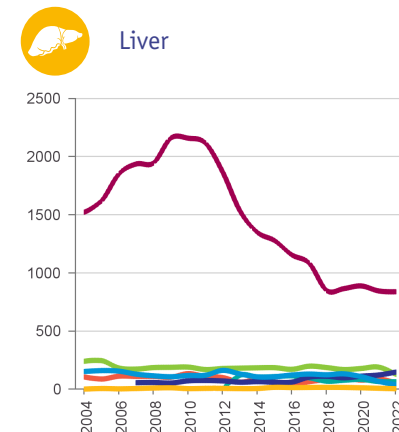
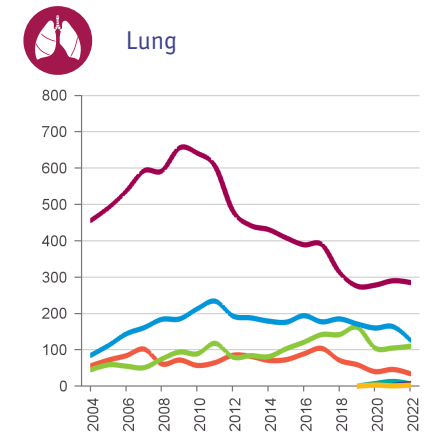
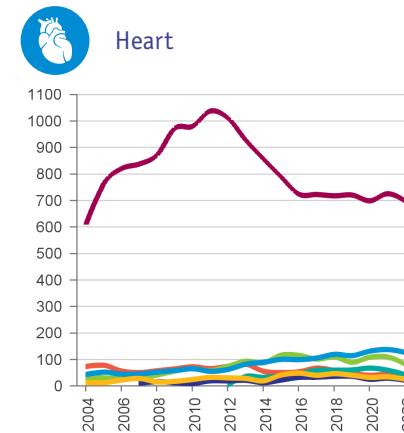
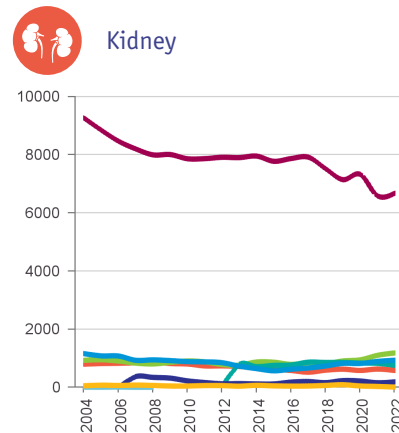
## 2.9.3 Active waiting lists in Eurotransplant, by organ



## 2.9.4 Active waiting list (any organ) in Eurotransplant, by country



## 2.9.5 Active waiting lists in Eurotransplant, by country

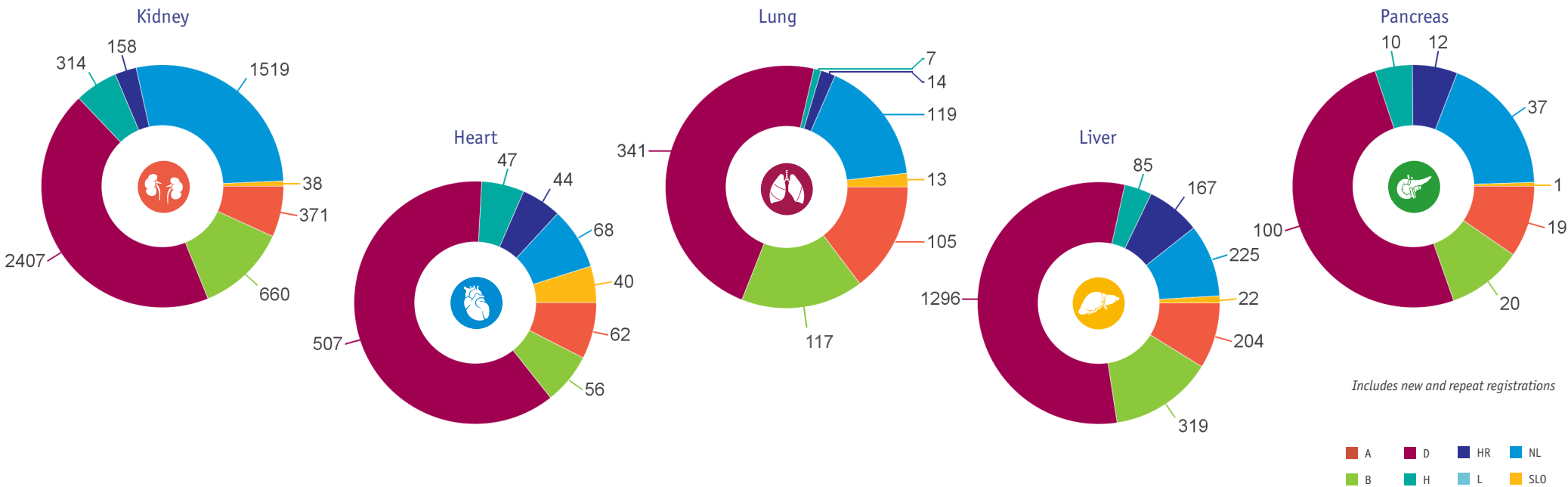


Legend: A (red), B (green), D (purple), H (teal), HR (dark blue), L (light blue), NL (blue), SLO (yellow)

2.10 Waiting list registrations

2.10.1 Waiting list registrations in Eurotransplant in 2022, by country\*

\* no active transplant program in Luxembourg in 2022



## 2.10.2 Waiting list registrations in Eurotransplant in 2022, by country

Waiting list	A	B	D	H	HR	NL	SLO	Total
Kidney	371	660	2407	314	158	1519	38	5467
Heart	62	56	507	47	44	68	40	824
Lung	105	117	341	7	14	119	13	716
Liver	204	319	1296	85	167	225	22	2318
Pancreas	19	20	100	10	12	37	1	199
Intestine	1	4	3			1		9
<b>Total</b>	<b>762</b>	<b>1176</b>	<b>4654</b>	<b>463</b>	<b>395</b>	<b>1969</b>	<b>114</b>	<b>9533</b>
<b>Patients</b>	<b>728</b>	<b>1113</b>	<b>4484</b>	<b>449</b>	<b>375</b>	<b>1933</b>	<b>108</b>	<b>9190</b>

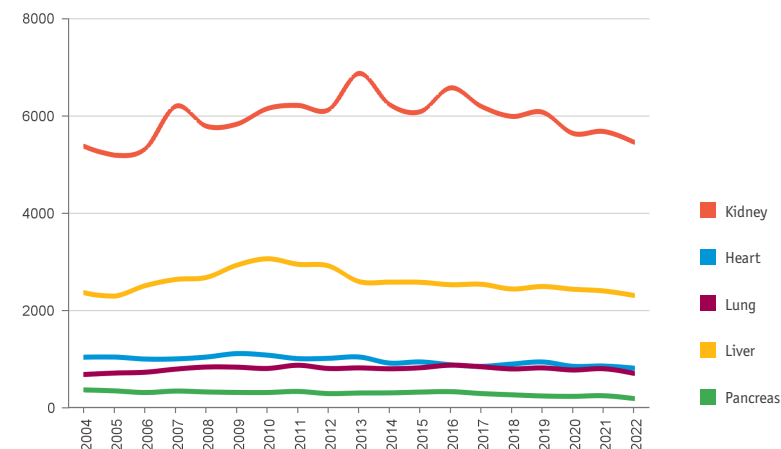
Patient registrations for multiple organs are counted for each organ type, includes new and repeat registrations

## 2.10.3 Repeat waiting list registrations in Eurotransplant in 2022, by country

Repeat registrations	A	B	D	H	HR	NL	SLO	Total
Kidney	56	76	265	24	5	203	4	633
Heart	1	5	11			1		18
Lung	7	5	4		1	1	2	20
Liver	24	35	113	8	14	26	1	221
Pancreas		4	5			3		12
Intestine								
<b>Total</b>	<b>88</b>	<b>125</b>	<b>398</b>	<b>32</b>	<b>20</b>	<b>234</b>	<b>7</b>	<b>904</b>
<b>Patients</b>	<b>87</b>	<b>123</b>	<b>394</b>	<b>32</b>	<b>18</b>	<b>232</b>	<b>7</b>	<b>893</b>

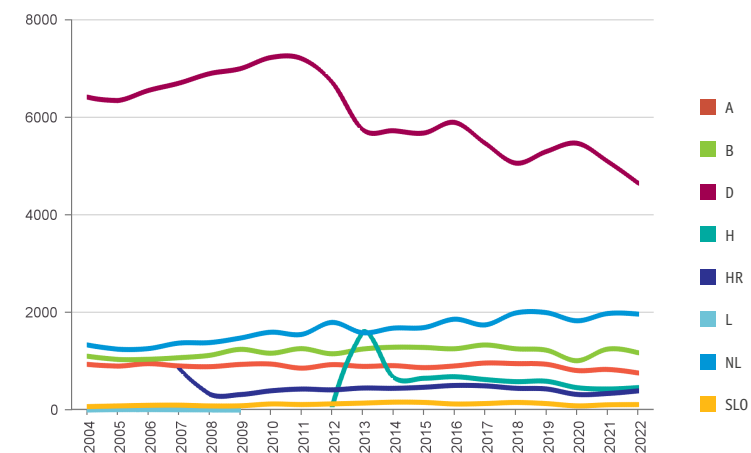
Patient registrations for multiple organs are counted for each organ type, includes only repeat registrations (for re-transplant)

## 2.10.4 Waiting list registrations in Eurotransplant, by organ



Patients registered for multiple organs are counted for each organ, includes new and repeat registrations

## 2.10.5 Waiting list (any organ) registrations in Eurotransplant, by country



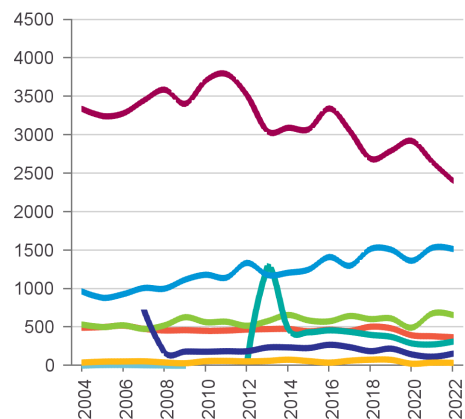
Patients registered for multiple organs are counted for each organ, includes new and repeat registrations

## 2.10.6 Waiting list registrations in Eurotransplant, by country\*

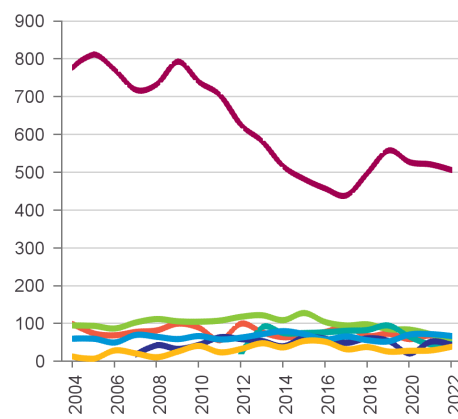
\* no active transplant program in Luxembourg in 2022



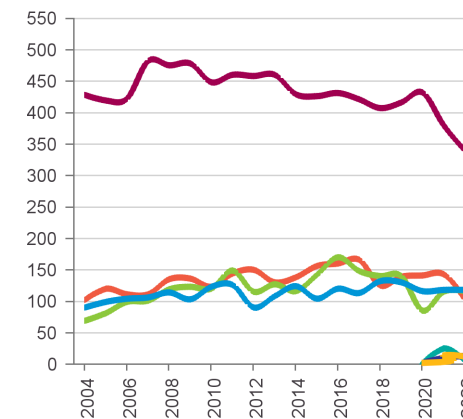
Kidney



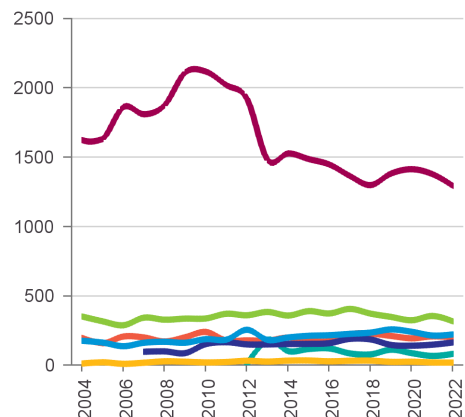
Heart



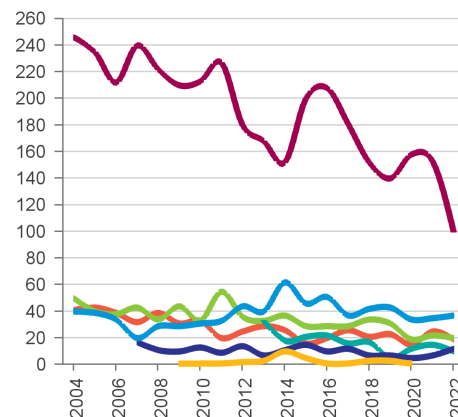
Lung



Liver



Pancreas



Includes new and repeat registrations

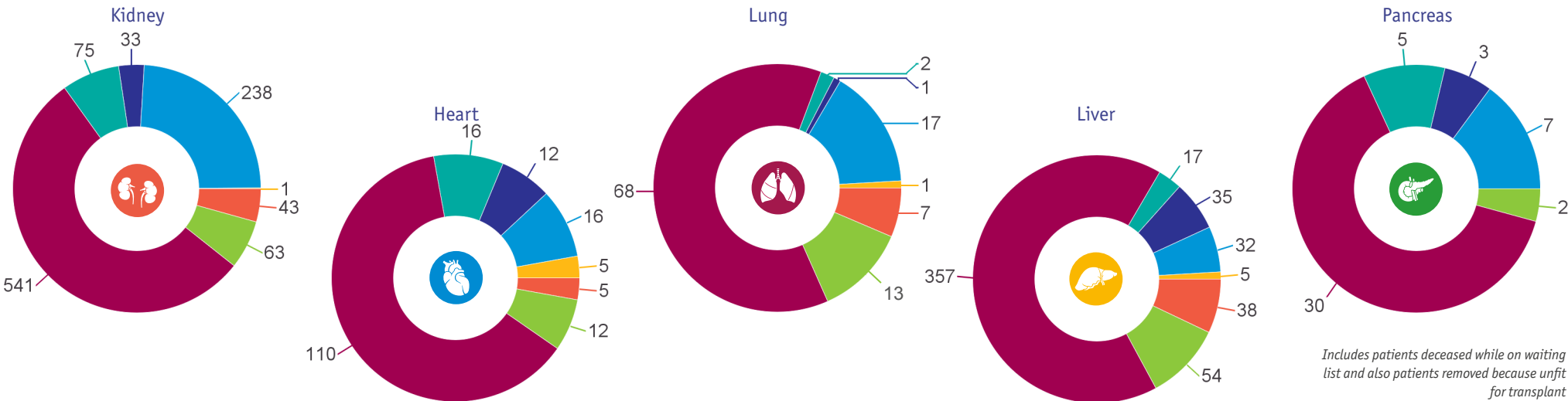




2.11 Waiting list removals (deceased or unfit for transplant)

2.11.1 Waiting list removals (deceased or unfit) in Eurotransplant in 2022, by country\*

\* no active transplant program in Luxembourg in 2022



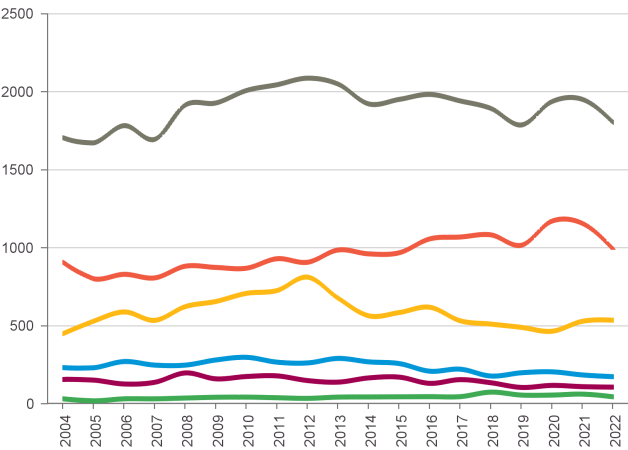
2.11.2 Waiting list removals (deceased or unfit) in Eurotransplant in 2022, by country

Waiting list type	A	B	D	H	HR	NL	SLO	Total
Kidney	43	63	541	75	33	238	1	994
Heart	5	12	110	16	12	16	5	176
Lung	7	13	68	2	1	17	1	109
Liver	38	54	357	17	35	32	5	538
Pancreas		2	30	5	3	7		47
Intestine			1					1
Total	93	144	1107	115	84	310	12	1865
Patients	92	133	1071	111	82	306	11	1806

Patient removals for multiple organs are counted for each organ type. Reported by year of removal from waiting list.  
Includes patients removed because unfit for transplant.



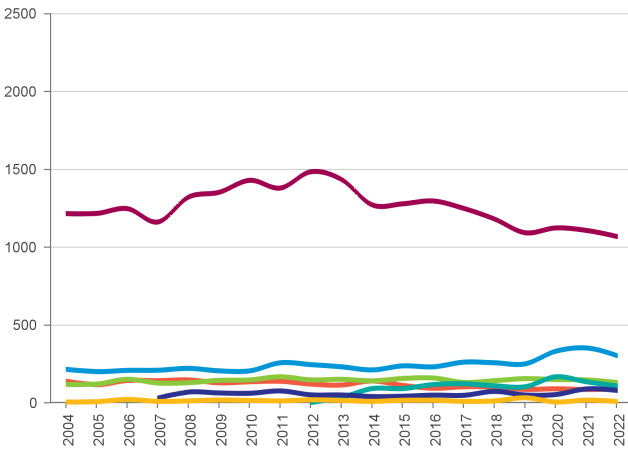
2.11.3 Waiting list removals (deceased or unfit) in Eurotransplant, by organ



Patients registered for multiple organs are counted for each organ.  
Includes patients removed because unfit for transplant.

Kidney Heart Lung Liver Pancreas Any organ

2.11.4 Waiting list (any organ) removals (deceased or unfit) in Eurotransplant, by country



Patients registered for multiple organs are counted once.  
Includes patients removed because unfit for transplant.

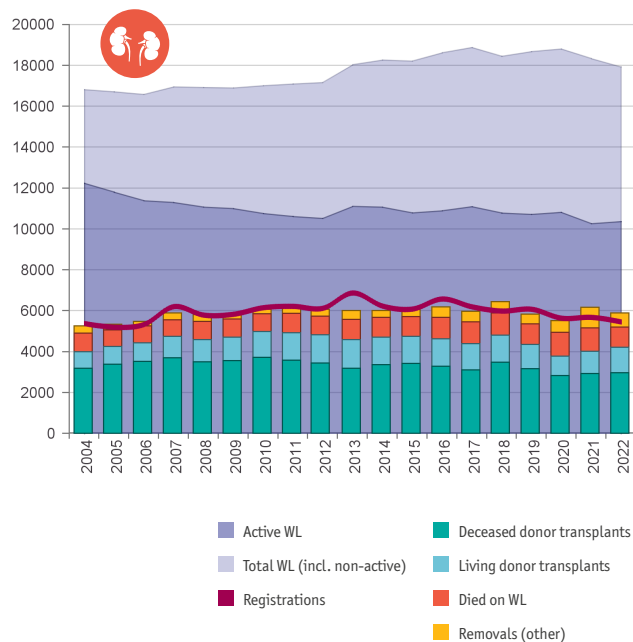
A B D H HR L NL SLO

## 2.12 Waiting list dynamics

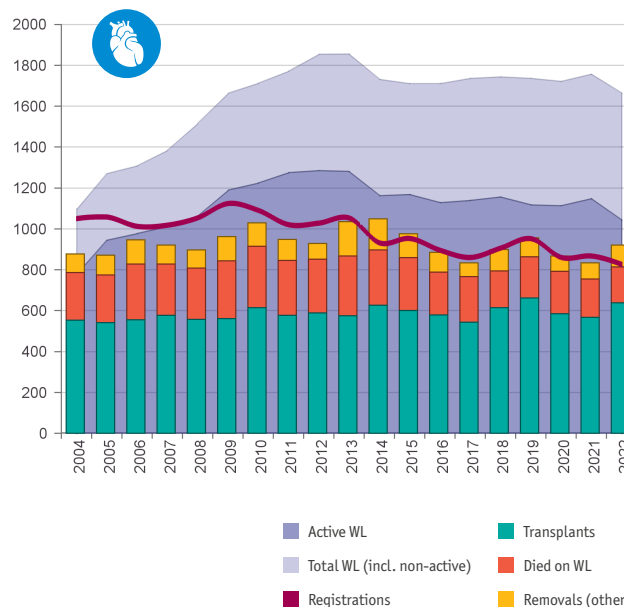
The following charts show the historical waiting list dynamics in detail:

- Registrations on the waiting list per year
- Removals (Transplanted / Died on the waiting list (including removed-unfit) / Other removals) per year (by year of actual removal from the waiting list)
- Active and Non-active waiting list (continuous)

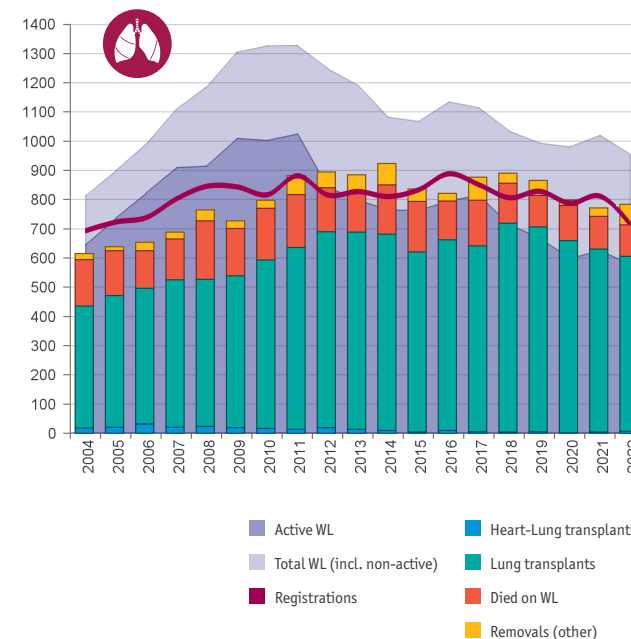
### 2.12.1 Kidney waiting list dynamics in Eurotransplant



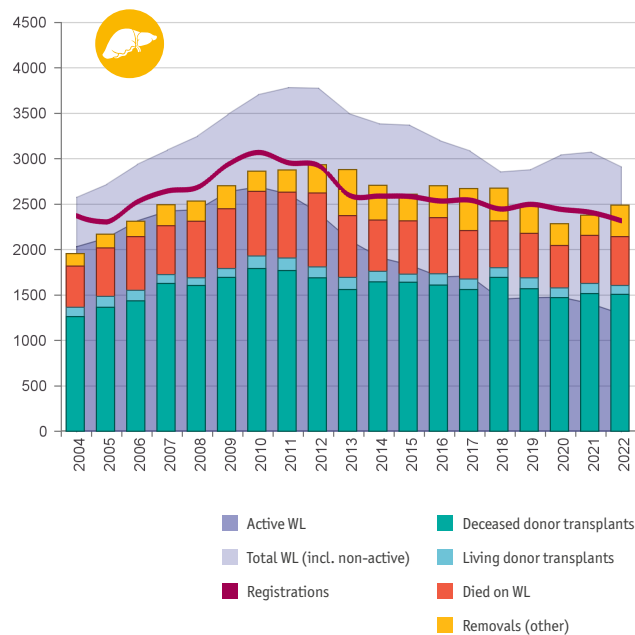
### 2.12.2 Heart waiting list dynamics in Eurotransplant



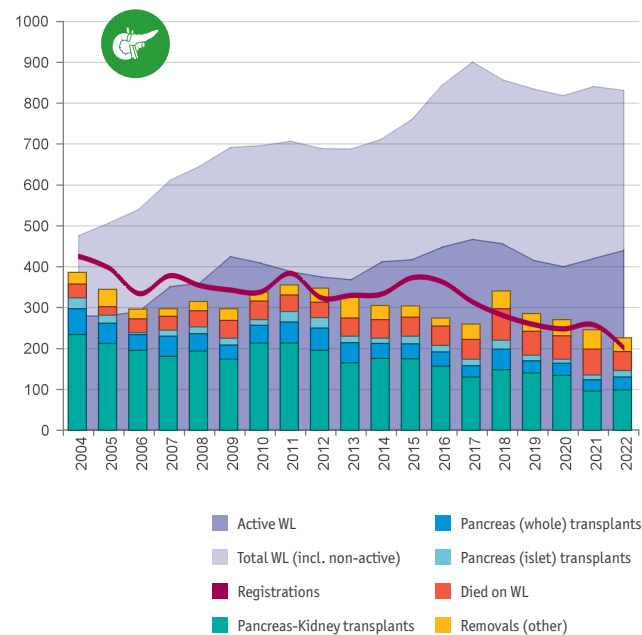
### 2.12.3 Lung waiting list dynamics in Eurotransplant



## 2.12.4 Liver waiting list dynamics in Eurotransplant



## 2.12.5 Pancreas waiting list dynamics in Eurotransplant

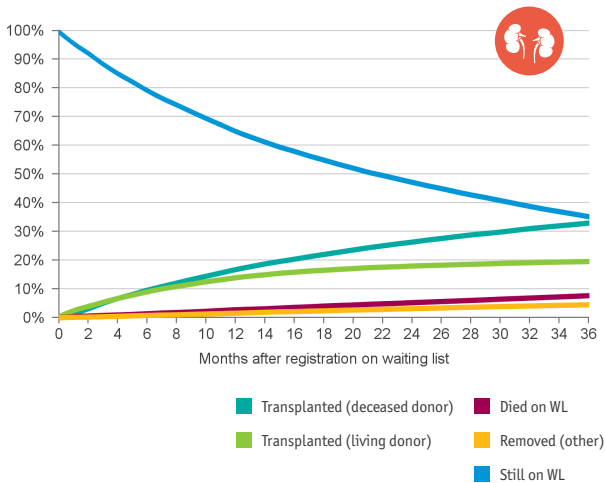


2.13 Waiting list outcome

The following charts show the probability of each waiting list outcome event, during the 3 years after registration on the Eurotransplant waiting list (based on registrations in the period 2015-2019).

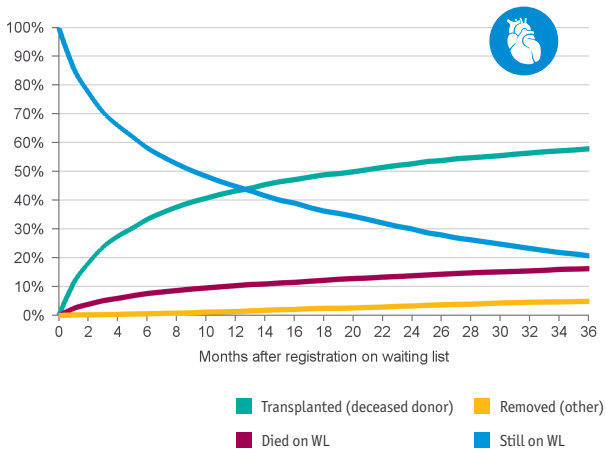
- Repeat registrations (after transplant) are excluded.
- New registrations resulting in living donor transplants are included.
- Active and Non-active status on the waiting list is included.
- Reported by month of actual removal event.
- Died on the WL includes removals because unfit for transplant.

2.13.1 Kidney waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome



Outcome	1 year	2 years	3 years
Transplanted (deceased donor)	17%	26%	33%
Transplanted (living donor)	14%	18%	20%
Died on the WL	3%	5%	8%
Removed (other)	2%	3%	5%
Still on WL	65%	47%	35%

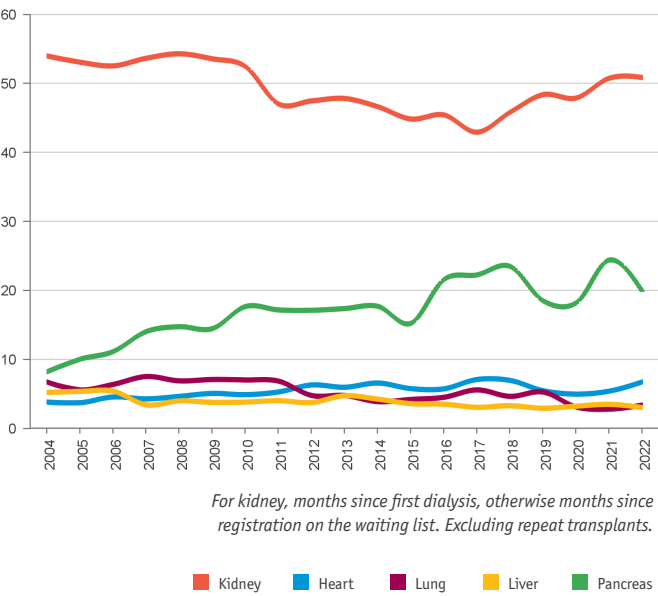
2.13.2 Heart waiting list registrations in Eurotransplant 2015-2019 - 3 year outcome



Outcome	1 year	2 years	3 years
Transplanted (deceased donor)	43%	53%	58%
Died on the WL	10%	14%	16%
Removed (other)	1%	3%	5%
Still on WL	45%	30%	21%



2.13.6 Median time (in months) to transplant (deceased donor)  
in Eurotransplant by year of transplant, by organ







# 3 Report of the Board and the central office



# Report of the Board and the central office

### 3.1 Report of the Board

Eurotransplant Governance structure:

- |  |
|--|
| 1 Board of Management responsible for the organization as a whole and overall decision-making. |
| 1 Supervisory Board supervising the Board of Management.                                       |
| 1 Council of Medicine and Science advising on organ-transcending matters.                      |
| 1 Council of Administration advising on financial and business matters.                        |
| 8 advisory committees advising on allocation rules, data collection and exchange and ethics.   |

### Governance composition per December 31, 2022

Board of Management		
Dr. P.J. Branger	General Director and Chairman	appointed January 2020
Mr. S.M. Vogelaar	Medical director	appointed February 2020
Supervisory Board		
Prof. Dr. Dirk E.M. Van Raemdonck	Portfolio of transplantation medicine	term: 2022 - 2026
<i>Vacancy</i>	Portfolio of transplantation medicine	
Mr. Guillaume J.H.C.M. Peeters, MA	Portfolio of business administration	term: 2020-2024
Mrs. Irntraut Gürkan	Portfolio of finance	term: 2020-2024
Mr. György Juhász	Portfolio of IT technology, IT applications and IT systems	term: 2020-2024

The term of two members with medical expertise in the Supervisory Board ended January 2022. The procedure for (re)appointment of new members started in the summer 2021. In line with the Articles of Association, Supervisory Board, Council of Medicine and Science and Council of Administration, were asked to nominate candidates to fill these positions. Nominated candidates need 2/3 approval from both Councils. Prof. van Raemdonck achieved this 2/3 approval from both Councils. Further attempts during 2022 to fill the vacancy in the Supervisory Board were unsuccessful. During a joint meeting of the Councils and the Supervisory Board in September 2022, the way forward was discussed. A solution will be found during 2023.



### Council of Medicine and Science

10 members A;	members representing organ/tissue typing section. All A-members are appointed by the General Assembly.
7 members B;	members representing national transplant societies. The appointment of the members referred to in this paragraph requires the prior approval of the Council of Medicine and Science.
1 member C;	the head of the Eurotransplant Reference Laboratory.
1 member D;	one member being an ethicist familiar with the field of organ transplantation.
1 observer;	nominated by and from the Council of Administration shall be invited to attend the meetings of the Council of Medicine and Science.

According to article 15.3 of the Articles of Association, the chairman of the Supervisory Board has the right to attend the meetings of the Council after consulting the Board of Management. The chairman of the Supervisory Board has no voting rights.

The chairman is appointed by the Council of Medicine and Science from the current or former members of the Council of Medicine and Science according to article 12 of the Articles of Association.

The term of two of the Members A ended October 2022. Members A are elected by the Assembly of the delegates. During the General Assembly held during the Eurotransplant Annual Meeting in September, the two members (representative Liver and Pancreas) were re-elected for another 4 years. The vacancy in the Kidney section was also filled.

### Members Council of Medicine and Science per December 31, 2022

Prof. Dr. M. Guba	Chair
Prof. Dr. G. Laufer	Vice chair / Member A for Thoracic organs (1/3)
Dr. D. Avsec	Member B – Slovenia (1/1)
Prof. Dr. F. Bemelman	Member A for Kidney (3/3)
Univ. Prof. Dr. G. Berlakovich	Member A for Kidney (1/3)
PD Dr. G. Bond	Member B – Austria (1/1)
Prof. Dr. J. Buturovic Ponikvar	Member D for Ethics (1/1)
Prof. Dr. M. Fischereder	Member A for Kidney (1/3)
Assoc. Prof. Dr. S. Heidt	Member C - Head of the ETRL
Dr. F. Ius	Member A for Thoracic (3/3)
Dr. N.P. van der Kaaij	Member B - Representative The Netherlands (1/1)
Dr. T. Kauke	Member A Representative Tissue Typing (1/1)
Dr. B. Kocman	Member B – Croatia (1/1)
PD Dr. med. G.L. Lurje	Member A Liver (2/2)
PD Dr. C. Margreiter	Member A for Pancreas (1/1)
Dr. D. Mikhalski	Member B – representative Belgium (1/1)
Prof. Dr. J. Pirenne	Member A for Liver (1/2)
Dr. L. Piros	Member B – Hungary (1/1)
Prof. Dr. J. Pratschke	Member B - Germany (1/1)
Univ. Prof. Dr. T. Soliman	Member A for Organ Procurement (1/1)
Prof. Dr. R. Vos	Member A for Thoracic (2/3)
Prof. Dr. D. van Raemdonck	Observer - Chairman Supervisory Board ETI
Dr. Jur. W. Abel	Observer - Council of Administration



**Council of Administration**

The Council of Administration consists of:

- Up to 3 representatives per Eurotransplant member state nominated and appointed by the National Competent Authority(ies) of the respective member state, including a chairman appointed by the Council of Administration from the current members of the Council of Administration according to article 16.2 of the Articles of Association;
- 1 observer nominated by and from the Council of Medicine and Science shall be invited to attend the meetings of the Council of Administration.
- According to article 15.3 of the Articles of Association, the chairman of the Supervisory Board has the right to attend the meetings of the Council after consulting the Board of Management. The chairman of the Supervisory Board has no voting rights.

The Chair of the Council of Administration resigned in December 2022, a new Chair was elected during the meeting on December 7, 2022. The position of vice-Chair will be filled early 2023.

**Members Council of Administration per December 31, 2022**

Dr. Jur. W. Abel	Chair/ Representative Germany (1/3)
Dr. M. Anusic Juricic	Representative Croatia (2/3)
dhr. F. Boland	Representative The Netherlands (2/3)
Mrs. I. van der Brempt	Representative Belgium (1/3)
Mrs. M. Brix-Zuleger	Representative Austria (1/3)
Dr. O. Deme	Representative Hungary (3/3)
Dr. T. Grüning	Representative Germany (2/3)
Dr. B. Kusar	Representative Slovenia (1/3)
Dr. W-D. Leber	Representative Germany (3/3)
Mr. J. Legrand	Representative Belgium (3/3)
Dr. S. Mihaly	Representative Hungary (1/3)
Dr. S. Nagy	Representative Hungary (2/3)
Dr. M. Premužić	Representative Croatia (1/3)
Dr. K. Reich	Representative Austria (2/3)
Dr. G. Roeyen	Representative Belgium (2/3)
Prof. Dr. D. Van Raemdonck	Observer - Chairman Supervisory Board ETI
Prof. Dr. G. Laufer	Observer - Council of Medicine and Science

## Advisory Committees

ET Kidney Advisory Committee (ETKAC)

ET Liver Intestine Advisory Committee (ELIAC)

ET Pancreas Advisory Committee (EPAC)

ET Thoracic Advisory Committee (ETThAC)

Organ Process Chain Committee (OPCC)

Tissue Typing Advisory Committee (TTAC)

ET Ethics Committee (ETEC)

ET Registry Advisory Committee (ERAC)

3.2 Advisory Committees

Eurotransplant has eight Advisory Committees consisting of representatives of the national transplant societies of the Eurotransplant member states, invited experts and if applicable, representatives from other advisory committees.

The advisory committees have an important role in the development of allocations rules.

The committees have among others the following tasks:

- Prepare and advice on the definition and implementation of new allocation rules for and sharing.
- The evaluation of allocation rules.
- The improvement of the allocation process data collection and support of scientific analysis

In 2022, the various Advisory Committees met 17 times and submitted 3 recommendations and 7 policies. A complete list of all recommendations and policies approved in 2022 is published under [section 3.3](#) of this chapter. Through this practice, transplant regulations throughout the Eurotransplant community have a great degree of uniformity.

The composition of the various Advisory Committees and working groups as per December 31, 2022, was as follows:

Eurotransplant Kidney Advisory Committee (ETKAC)

Name	As of	Remarks
Prof. Dr. M. Fischereder, München	12.2021	chair / representative Council of Medicine and Science
Prof. Dr. K. Eller, Graz	02.2022	vice-chair
	01.2020	representative Austria (1/2)
Dr. F. Eskandary, Wien	01.2020	representative Austria (2/2)
Prof. Dr. G. Mayer, Innsbruck	01.2016	substitute representative Austria (1/2)
Dr. D. Cejka, Linz	01.2020	substitute representative Austria (2/2)
Prof. Dr. D. Kuypers, Leuven	01.2022	representative Belgium (1/2)
Dr. L. Pipeleers, Brussels-Jette	01.2022	representative Belgium (2/2)
Dr. L. Weekers, Liège	01.2022	substitute representative Belgium (1/2)
Prof. Dr. C. Randon, Gent	01.2022	substitute representative Belgium (2/2)
Prof. Dr. N. Basic-Jukic, Zagreb	04.2018	representative Croatia (1/1)
Prof. S. Racki, Rijeka	01.2022	substitute representative Croatia (1/1)
Prof. Dr. K. Budde, Berlin	01.2016	representative Germany (1/4)
Dr. G. Einecke, Hannover	01.2022	representative Germany (2/4)
Prof. Dr. M. Koch, Mainz	01.2018	representative Germany (3/4)
Prof. Dr. B. Suwelack, Münster	01.2018	representative Germany (4/4)
Prof. Dr. M. Schiffer, Erlangen	02.2020	substitute representative Germany (1/4)

Name	As of	Remarks
Prof. Dr. U. Eisenberger, Essen	01.2020	substitute representative Germany (2/4)
Prof. Dr. B. Banas, Regensburg	01.2020 - 10.2022	substitute representative Germany (3/4)
Prof. Dr. F. Braun, Kiel	11.2022	substitute representative Germany (3/4)
Prof. Dr. U.T.Z. Settmacher, Jena	01.2020	substitute representative Germany (4/4)
Dr. L. Wagner, Budapest	06.2019	representative Hungary (1/1)
Dr. E. Szederkenyi, Budapest	06.2019	substitute representative Hungary (1/1)
Dr. P. Duhoux, Luxembourg	09.1994	representative Luxembourg (1/1)
Prof. Dr. C. Braun, Luxembourg	11.2018	substitute representative Luxembourg (1/1)
Dr. M.H.L. Christiaans, Maastricht	01.2018	representative Netherlands (1/2)
Dr. A.D. van Zuilen, Utrecht	01.2022	representative Netherlands (2/2)
Prof. Dr. M. Arnot, Ljubljana	01.2006	representative Slovenia (1/1)
Prof. Dr. G. Mlinsek, Ljubljana	01.2018	substitute representative Slovenia (1/1)
Dr. S. Heidt, Leiden (ETRL)	01.2020	representative TTAC
Prof. Dr. B. Tönshoff, Heidelberg	12.2011	representative pediatric topics
Dr. C.M. Tieken, Eurotransplant	01.2014	secretary
Drs. R.H.J. Verschuren, Eurotransplant	11.2021	substitute secretary
Mrs. J. Penic, Eurotransplant	11.2021	assistant secretary



## Eurotransplant Liver and Intestine Advisory Committee (ELIAC)

Name	As of	Remarks
Prof. Dr. J. Pirenne, Leuven	01.2020	chair / representative Council of Medicine and Science
Univ. Prof. Dr. G. Berlakovich, Vienna	07.2014	vice-chair - representative Austria (1/1)
Prof. Dr. H. Zoller, Innsbruck	04.2013	substitute representative Austria (1/1)
Prof. Dr. F. Nevens, Leuven	01.2020	representative Belgium (1/1)
Prof. Dr. H.R. van Vlierberghe, Gent	01.2012	substitute representative Belgium (1/1)
Dr. D. Mikulic, Zagreb	01.2018	representative Croatia (1/1)
Prof. Dr. S. Jadrijevic, Zagreb	01.2011	substitute representative Croatia (1/1)
Prof. Dr. M. Sterneck, Hamburg	01.2020	representative Germany (1/2)
Prof. Dr. F. Braun, Kiel	01.2018	representative Germany (2/2)
Prof. Dr. M. Melter, Regensburg	01.2018	substitute representative Germany (1/2)
	12.2020	representative pediatric topics
Prof. Dr. med. A. Pascher, Münster	01.2016	substitute representative Germany (2/2)
Dr. L. Piros, Budapest	06.2019 - 08.2022	representative Hungary (1/1)
Dr. T. Benkö, Semmelweis	09.2022	representative Hungary (1/1)
Prof. Dr. L. Kabori, Budapest	01.2018 - 08.2022	substitute representative Hungary (1/1)
Dr. G. Huszty, Semmelweis	09.2022	substitute representative Hungary (1/1)
Dr. W.G. Polak, Rotterdam	04.2021	representative Netherlands (1/1)
Drs. J. Dubbeld, Leiden	04.2021 - 01.2022	substitute representative Netherlands (1/1)
Prof. Dr. I.P.J. Alwayn, Leiden	02.2022	substitute representative Netherlands (1/1)
Prof. Dr. B. Trotosek, Ljubljana	01.2016	representative Slovenia (1/1)
Dr. K. Novak, Ljubljana	01.2018	substitute representative Slovenia (1/1)
Dr. R. Scheenstra, Groningen	02.2021	substitute representative pediatric topics
Dr. M.D. de Rosner - van Rosmalen, Eurotransplant	12.2013	secretary
Dr. M. van Bruchem, Eurotransplant	04.2021	substitute secretary
Ms. A. Warmerdam, Eurotransplant	12.2021 - 04.2022	assistant secretary
Ms. C. Voort, Eurotransplant	05.2022 - 11.2022	assistant secretary
Mrs. L.M.E.J. Sanders, Eurotransplant	12.2022	assistant secretary

## Eurotransplant Pancreas Advisory Committee (EPAC)

Name	As of	Remarks
PD Dr. C. Margreiter, Innsbruck	10.2016	chair / representative Council of Medicine and Science
Dr. V.A.L. Huurman, Leiden	02.2021	vice-chair
	01.2021	representative Netherlands (1/1)
Prof. Dr. P. Stiegler, Graz	06.2017	representative Austria (1/1)
Dr. G. Györi, Vienna	01.2018	substitute representative Austria (1/1)
Prof. Dr. P. Gillard, Leuven	03.2010	representative Belgium (1/1)
Prof. Dr. D. Jacobs - Tulleneers Thevissen, Brussels - Jette	01.2016	substitute representative Belgium (1/1)
Dr. M. Poljak, Zagreb	01.2018	representative Croatia (1/1)
Ass. Prof. S. Jadrijevic, Merkur	01.2022	substitute representative Croatia (1/1)
Prof. R. Viebahn, Bochum	01.2022	representative Germany (1/3)
PD Dr. A. Kahl, Berlin	01.2006	representative Germany (2/3)
Prof. Dr. B. Ludwig, Dresden	01.2016	representative Germany (3/3)
PD Dr. H. Arbogast, München	01.2020	substitute representative Germany (1/1)
Assoc. Prof. Dr. G.A. Molnár, Pecs	06.2021 - 05.2022	representative Hungary (1/1)
Prof. Dr. T.J. Kovacs, Pecs	06.2022	representative Hungary (1/1)
Dr. L. Piros, Budapest	01.2016 - 02.2022	substitute representative Hungary (1/1)
Dr. P. Szakaly, Pecs	03.2022	substitute representative Hungary (1/1)
Dr. C. Moers, Groningen	01.2018	substitute representative Netherlands (1/1)
Dr. A. Tomazic, Ljubljana	01.2007	representative Slovenia (1/1)
Dr. M. Petric, Ljubljana	01.2022	substitute representative Slovenia (1/1)
Prof. Dr. M.-P. Emonds, Mechelen	01.2020	representative TTAC
Dr. M van Bruchem, Eurotransplant	04.2021	secretary
Dr. M.D. de Rosner – van Rosmalen, Eurotransplant	04.2021	substitute secretary
Mrs. A.M.D. Ramsoebhag - Meijers, Eurotransplant	07.2015	assistant secretary

## Eurotransplant Thoracic Advisory Committee (EThAC)

Name	As of	Remarks
Prof. Dr. G. Laufer, Vienna	10.2001	chair, representative of the COMS
Prof. Dr. K. Hötzenecker, Vienna	04.2022	representative Austria (1/2)
Prof. Dr. A. Zuckermann, Vienna	01.2008	representative Austria (2/2)
Dr. J. Dumfarth, Innsbruck	01.2016	substitute representative Austria (1/2)
Dr. T. Schweiger, Vienna	04.2022	substitute representative Austria (2/2)
Prof. Dr. F. Rega, Louvain	01.2016	representative Belgium (1/2)
Prof. Dr. C. Knoop, Brussels	01.2018	representative Belgium (2/2)
Dr. M. De Pauw, Ghent	01.2006	substitute representative Belgium (1/2)
Prof. Dr. P. Evrard, Brussels	01.2018	substitute representative Belgium (2/2)
Prof. Dr. D. Milicic, Zagreb	04.2017	representative Croatia (1/2)
Dr. F. Dzibur, Zagreb	02.2021	representative Croatia (2/2)
Prof. Dr. med. M. Cikes, Zagreb	01.2022	substitute representative Croatia (1/1)
Prof. Dr. J. Gummert, Bad Oeynhausen	08.2016	vice chair, representative Germany (1/4)
Dr. M. Berchtold-Herz, Freiburg	08.2016	representative Germany (2/4)
Prof. Dr. C. Schulze, Jena	08.2016	representative Germany (3/4)
Prof. Dr. G. Warnecke, Heidelberg	08.2016	representative Germany (4/4)
Prof. Dr. R.S. Schramm, Bad Oeynhausen	01.2020	substitute representative Germany (1/3)
PD DR. S. Michel, Munich	01.2020	substitute representative Germany (2/3)
Prof. Dr. C. Knosalla, Berlin	01.2020	substitute representative Germany (3/3)
Dr. I. Hartyanszky, Budapest	01.2016	representative Hungary (1/2)
Dr. L.B. Bogyó, Budapest	02.2022	representative Hungary (2/2)
Dr. B. Sax, Budapest	01.2016	substitute representative Hungary (1/2)
Dr. B. Gieszer, Budapest	02.2022	substitute representative Hungary (2/2)
Dr. R.A.S. Hoek, Rotterdam	06.2018	representative the Netherlands (1/2)
Dr. M.E. Erasmus, Groningen	01.2020	representative the Netherlands (2/2)
<i>Vacancy</i>	01.2022	substitute representative The Netherlands
Prof. Dr. I. Knezevic, Ljubljana	07.2007	representative Slovenia (1/2)
Prof. Dr. T. Stupnik, Ljubljana	01.2020	representative Slovenia (2/2)
Prof. Dr. B. Vrtovec, Ljubljana	01.2018	substitute representative Slovenia (1/2)
Prof. Dr. M. Harlander, Ljubljana	01.2022	substitute representative Slovenia (2/2)

Name	As of	Remarks
Dr. J.M.A. Smits, Eurotransplant	09.2005	secretary
Dr. C.M. Tiekens, Eurotransplant	01.2014	substitute-secretary
Dr. M. van Bruchem, Eurotransplant	07.2022	substitute-secretary
Mr. J. Fijnvandraat, Eurotransplant	05.2021	assistant-secretary

Tissue Typing Advisory Committee (TTAC)

Name	As of	Remarks
Dr. S. Heidt, Leiden	03.2020	Chair, representative of the COMS
Prof. Dr. G. Fischer, Vienna	11.2012	representative Austria (1/1)
Dr. U. Posch, Graz	01.2016	substitute representative Austria (1/1)
Prof. Dr. M-P. Emonds, Mechelen	02.2006	representative Belgium (1/1)
Dr. M. S. Verheyden, Brussels	01.2020	substitute representative Belgium (1/1)
Prof. Dr. R. Zunec, Zagreb	04.2008	representative Croatia (1/1)
<i>Vacancy</i>		substitute representative Croatia
Dr. T. Kauke, Munich	02.2017	representative Germany (1/2)
Dr. N. Lachmann, Berlin	11.2014	Vice-Chair, representative Germany (2/2)
Dr. G. Einecke, Hannover	01.2016	substitute representative Germany (1/2)
PD Dr. med. D. Zecher, Regensburg	11.2022	substitute representative Germany (2/2)
Dr. A. Szilvasi, Budapest	11.2015	representative Hungary (1/1)
Dr. Z. Illes, Budapest	01.2018	substitute representative Hungary (1/1)
Dr. B.G. Hepkema, Groningen	01.2014	representative The Netherlands (1/1)
Dr. N. M. Lardy, Amsterdam	01.2021	substitute representative The Netherlands (1/1)
Dr. B. Vidan-Jeras, Ljubljana	12.1999	representative Slovenia (1/1)
Dr. S. Montanic, Ljubljana	01.2020	substitute representative Slovenia (1/1)
Dr. C. Kramer, Leiden	11.2022	secretary
Dr. C.M. Tieken, Eurotransplant	04.2021	ET-liaison officer
Dr. R.H.J. Verschuren, Eurotransplant	08.2021	ET-liaison officer
Dr. M. van Bruchem, Eurotransplant	06.2021	ET-liaison officer
Mrs. J. Penic, Eurotransplant	04.2021	ET- Assistant- liaison officer



## Eurotransplant Organ Process Chain Committee (OPCC)

Name	As of	Remarks
Univ. Prof. Dr. T. Soliman, Vienna	10.2018	chair / representative Council of Medicine and Science
Prof. Dr. F. Rauchfuss, Jena	11.2022	vice-chair
	01.2022	representative Germany (2/2)
Dr. A. Weissenbacher, Innsbruck	01.2020	representative Austria (1/1)
PD Dr. D. Kniepeiss, Graz	01.2016	substitute representative Austria (1/1)
Mr. P. Lafaïre, Gent	01.2022	representative Belgium (1/1)
Mr. B. Desschans, Leuven	01.2022	substitute representative Belgium (1/1)
Prof. Dr. D. Monbaliu, Belgian Transplantation Society	01.2016	observer Belgium
Dr. I. Petrovic, Zagreb	01.2018	representative Croatia (1/1)
Dr. M. Anusic Juricic, Institute of Transplantations and Biomedicine	01.2020	observer Croatia
Prof. Dr. J. Andrassy, Munich	11.2013	representative Germany (1/2)
Prof. Dr. P. Schemmer, Graz	01.2022	substitute representative Germany (1/1)
Dr. A. Rahmel, Deutsche Stiftung Organtransplantation	05.2014	observer Germany
Dr. S. Mihaly, Budapest	01.2018	representative Hungary (1/1)
Dr. O. Deme, Budapest	01.2018	substitute representative Hungary (1/1)
Dr. W.N. Nijboer	02.2021	representative Netherlands (1/1)
Mr. F.H. Hendrix, Nijmegen	05.2019 – 09.2022	substitute representative Netherlands (1/1)
Mrs. S. Katerberg, Groningen	10.2022	substitute representative Netherlands (1/1)
Drs. M.E. Martens, Dutch Transplantation Society	02.2021 – 06.2022	observer Netherlands
Dr. A. Gadzijev, Ljubljana	01.2018	representative Slovenia (1/1)

Name	As of	Remarks
Dr. Z. Tomazincic, Ljubljana	01.2018	substitute representative Slovenia (1/1)
Dr. A. Avsec, Slovenija Transplant	07.2015	observer Slovenia
Prof. Dr. M. Koch, Mainz	02.2022	representative ETKAC
Dr. D. Mikulic, Zagreb	04.2019	representative of the ELIAC
Dr. V.A.L. Huurman, Leiden	03.2021	representative EPAC
Prof. Dr. A. Zuckermann, Vienna	04.2008	representative EThAC
Prof. G. Lang (Vienna)	09.2020	substitute representative EThac
Dr. B.G. Hepkema, Groningen	01.2014	representative TTAC
Dr. A.J.T. Jens, Eurotransplant	10.2021 - 05.2022	secretary
Dr. R.H.J. Verschuren, Eurotransplant	06.2022	secretary
Dr. M.D. de Rosner - van Rosmalen, Eurotransplant	01.2014	substitute secretary
Mrs. A.J. Verweij, Eurotransplant	04.2020	assistant secretary

## Eurotransplant Registry Advisory Committee (ERAC)

Name	As of	Remarks
Prof. Dr. I.P.J. Alwayn, Leiden	06.2017	Representative Netherlands (1/1)
Dr. D. Avsec, Ljubljana	02.2017	Substitute Representative Slovenia (1/1)
Prof. Dr. F. Bemelman, Amsterdam	06.2018 - 02.2022	Representative ETKAC (1/2)
Dr. A.D. van Zuilen	02.2022	Representative ETKAC (1/2)
Univ. Prof. Dr. G. Berlakovich, Vienna	11.2016	Chair / Representative Council of Medicine and Science
Prof. Dr. F. Braun, Kiel	03.2020	Representative ELIAC (2/2)
Prof. Dr. K. Budde, Berlin	06.2018	Representative ETKAC (2/2)
Dr. M.H.L. Christiaans, Maastricht	06.2018	Substitute Representative ETKAC (2/2)
Prof. Dr. T. Filipec Kanizaj, Zagreb	04.2018	Representative Croatia (1/1)
Dr. A. Gadzijev, Ljubljana	06.2017	Representative Slovenia (1/1)
Dr. med. G.G. Greif-Higer, Mainz	01.2017	Representative Ethics (1/1)
Prof. Dr. I. Hauser, Frankfurt am Main	06.2018	Substitute Representative ETKAC (1/2)
Assoc. Prof. Dr. S. Heidt, Leiden	03.2017 - 06.2022	Representative TTAC (1/1)
Dr. N. Lachmann	06.2022	Representative TTAC (1/1)
Dr. B.G. Hepkema, Groningen	04.2018	Substitute Representative TTAC (1/1)
Assoc. Prof. Dr. M. Maglione, Innsbruck	03.2021	Representative Austria (1/1)
PD Dr. C. Margreiter, Innsbruck	08.2017	Representative EPAC (1/1)
Prof. Dr. H. Müller, Graz	03.2021	Substitute Representative Austria (1/1)
Prof. Dr. M. Naesens, Leuven	01.2020	Substitute Representative Belgium (1/1)
Dr. W.G. Polak, Rotterdam	11.2021	Representative ELIAC (1/2)
Prof. Dr. U.T.Z. Settmacher, Jena	07.2020	Substitute Representative Germany (1/1)
Univ. Prof. Dr. T. Soliman, Vienna	03.2019	Representative OPCC (1/1)
Prof. Dr. C.H. Strassburg, Bonn	11.2016	Representative Germany (1/1)
Prof. Dr. G. Warnecke, Heidelberg	07.2017	Representative EThAC (1/2)
Prof. Dr. K.M. Wissing, Brussels	06.2018	Representative Belgium (1/1)
Prof. Dr. A. Zuckermann, Vienna	07.2017	Representative EThAC (2/2)
Ms. M. van Meel, Eurotransplant	01.2018	Secretary

## Eurotransplant Ethics Committee (ETEC)

Name	As of	Remarks
Prof. Dr. em. P. Ferdinande, Leuven	05.2015	Vice Chair & Substitute Representative Belgium (1/1)
Prof. Dr. P. Evrard, Yvoir	01.2020	Representative Belgium (1/1)
Dr. M. J. Siebelink, Groningen	01.2014	Representative Netherlands (1/1)
Prof. Dr. C. Hörmann, St. Pölten	10.2015	Representative Austria (1/1)
Dr. med. G. G. Greif-Higer, Mainz	01.2020	Representative Germany (1/1)
Prof. Dr. B. Banas	01.2022	Substitute Representative Germany(1/1)
Dr. B. Nemes, Debrecen	10.2014	Representative Hungary (1/1)
Dr. M. Zink, St. Veit / Glan	01.2016	Substitute Representative Austria (1/1)
Prof. Dr. L. Zibar, Zagreb	04.2018	Representative Croatia (1/1)
Dr. D. Avsec, Ljubljana	01.2014	Representative Slovenia (1/1)
Prof. Dr. J. Buturovic Ponikvar, Ljubljana	10.2019	Chair / Representative of the Council of Medicine and Science
Dr. Z. Hodi, Szeged	01.2016	Substitute Representative Hungary (1/1)
Dr. J. Simenc, Groningen	01.2020	Substitute Representative Slovenia (1/1)
Dr. P.J. Branger, Eurotransplant	08.2021	Secretary

### 3.3 Recommendations & policies approved

The Eurotransplant advisory committees meet several times a year. The advisory committees evaluate the outcome of current allocation schemes and discuss the possible impact of new scientific developments. In case of the need of modification, a recommendation or policy can be drafted. The recommendations concern in general (allocation) modifications for all member states. Policies in general concern a Eurotransplant specific working procedure. These recommendations and policies are presented to the Council of Medicine and Science for advice and subsequently presented for final approval to the Eurotransplant Board of Management.

### Eurotransplant recommendation

Recommendations are drafted by the Eurotransplant advisory committees and in general affect the international allocation of deceased donor organs. Recommendations require the approval of each responsible national authority of each member state prior to implementation. A typical example of a Eurotransplant recommendation according to this distinction would be a change in allocation rules. With the approval of the recommendation by the responsible national authority it becomes binding in the respective Eurotransplant country.

## Eurotransplant policy

Policies in general concern Eurotransplant working procedures. Policies are sent to national authorities for information purposes only; the national authorities are given 4 weeks to comment on a proposed policy. After these 4 weeks, a policy can be implemented.

In 2022, the following recommendations (R-) and policies (P-) were submitted by the advisory committees and approved by the Eurotransplant Board of Management:

## Eurotransplant Kidney Advisory Committee (ETKAC)

**P-KAC01.22 – balance calculation – replaces P-KAC07.19**

Balance points of deceased donors are calculated according to the following scheme:

### National Balance Points:

1. donor age 0-17 = (highest import balance donor age 0-17 – recipient country balance donor age 0-17) x 30
2. donor age 18-49 = (highest import balance donor age 18-49 – recipient country balance donor age 18-49) x 30
3. donor age 50-64 = (highest import balance donor age 50-64 – recipient country balance donor age 50-64) x 30

**P-KAC02.22 - Start balance at the time of implementation "R-KAC02.21 Balancing on donor type"**

At time of implementation “R-KAC02.21 – Balancing on donor type” the current balance in which DCD and DBD kidneys are included will at time of implementation be used for balancing DBD kidneys whereas the DCD balance will start at 0 (no balance difference).

**R-PAC02.21 Withdrawal of plasmapheresis immunized program (replacement of R-PAC01.15)**

The value of R-PAC01.15 concerning the immunized program for patients after plasmapheresis has been disputed and was discussed during the EPAC meetings of February 11 and October 19, 2021. Decided was to withdraw the recommendation.

R-PAC01.15 – Immunized program for pancreas patients after plasmapheresis

In case a patient receives plasmapheresis therapy, the pre-intervention probability to receive an organ will be considered for defining match rank position. However, for patient selection the post-treatment unacceptable antigens will be considered.

According to R-PAC01.13, pancreas and pancreas-kidney patients with the lowest probability to receive an organ will be prioritized over the other patients in pancreas allocation.

In case of plasmapheresis therapy, the probability to receive an organ will go up. These patients will then not be considered for the Immunized program for pancreas recipients.

The priority given to patients with the lowest probability to receive an organ should not be hampered by a therapeutic intervention.





### 3.4 Report of the Eurotransplant office

#### Allocation development

In transplantation medicine improved methods and new ways are regularly being developed to help patients threatened from end-stage organ failure. Implementing and adapting these methods are important aspects of work of the allocation development department, IT staff and functional management at Eurotransplant.

In 2022, despite the last restrictions of the COVID-19 pandemic, the work of the organ advisory committees continued.

Below a summary of the work per organ advisory committee in 2022:

#### Thoracic Advisory Committee (EThAC)

In 2022, the EThAC decided to install two new permanent subcommittees. These subcommittees should advise the Eurotransplant Thoracic Advisory Committee, where matters on heart waiting list, heart allocation and heart follow-up should be dealt with in the ET Heart Subcommittee (ETHS) and all matters on lung waiting list, lung allocation and lung follow-up should be dealt with in the ET Lung Subcommittee (ETLS).

All heart representatives of the EThAC will be members of the ETHS, all lung representatives in the EThAC will be members of the ETLS. The role of the substitute representatives remains the same.

The ETLS and ETHS are advisory committees, voting on recommendations/policies remains the responsibility of the EThAC.

#### Liver and Intestine Advisory Committee (ELIAC)

##### *Liver:*

The ELIAC discussed the effects of new oral anticoagulants on the INR, and how to ensure equal chances for patients on the waiting list. The topic will be continued in 2023.

In 2022, the Eurotransplant waitlist outcome predictor has been published on the member site. This outcome predictor has been created in close cooperation with the Technical University of Eindhoven and provides the physician great insight into the chance of transplantation or death on the liver waitlist and the effect of changes in the donor profile and patient characteristics on these chances. The tool can assist the physician in visualizing the situation for the patient and provides insight in the donor profile settings.

The Eurotransplant PhD researcher continued with the collection of a comprised list with important clinical data items, created in close cooperation with members of the ELIAC. These items will be used to update the existing prognostic allocation model, taking futile transplants into account and the differences in the individual countries.

The liver simulation model is under development and will be used to simulate the effect of changes in the allocation system on waitlist mortality and post-transplant outcome. A first 'proof of concept' will be performed with the Belgian (N)SE system.

##### *Intestine:*

Eurotransplant and University Medical Center Groningen continued their plan to streamline data exchange from the intestine transplant centers to Eurotransplant and from Eurotransplant to the International Intestine registry (ITR). All parties have expressed their wish to automate

this exchange.

An intestine auditor group has been under construction, to fine tune the audit process for requests for the HU intestine status. The adapted intestine allocation will be implemented in 2023.

#### Pancreas Advisory Committee (EPAC)

The Pancreas Immunized Program was implemented on July 14, 2020. The aim of the program is to prioritize patients with a low probability to receive an organ, based on the percentage of compatible donors in the pool. In 2022 a 2-year overview was given showing 3-5% of the patients on the active waiting list are within the immunized program. After two years of implementation, 11 immunized pancreas (+ kidney) recipients received a transplant through the immunized program in relation to a total of 279 pancreas (+ kidney) transplants in the same two years. Although the number of patients benefitting from the program looks promising, a further analysis on the outcome after transplantation through the different allocation programs, also taking the Acceptable Mismatch (AM) program for pancreas + kidney patients into account, is needed in order to say something about its success and also to say something about the functionality of running both programs in parallel. The success of the immunized program and the (dis)continuation of the AM program for pancreas + kidney patients will be further discussed by the EPAC in 2023.

In the last 10 years a drop of 50% in pancreas transplantations in the whole Eurotransplant region is seen. The waiting list on the other hand is quite stable. The EPAC will closely monitor the developments and the impact of this change.

### Kidney Advisory Committee (ETKAC)

In 2022 no recommendations or policies were implemented, however the ETKAC discussed the following topics:

#### *Pediatric donor age*

After the decision to adapt the pediatric recipient age from 16 years to 18 years the ETKAC decided that the pediatric donor age has to be adjusted as well. A recommendation is drafted to change the pediatric donor age from 16 to 18 years.

#### *Balance*

In 2019 the exchange balance between the Eurotransplant countries has been adjusted. Since 2019 the balance contains four age groups. In 2021 the effects of the change have been evaluated. This evaluation concluded that DCD and DBD kidneys should be separated in the balance. One of the major issues in the discussion was on the starting point of the balance in case this distinction (DBD -DCD) would be implemented. In 2022 consensus was found and a recommendation drafted, which was also approved.

Due to change in pediatric donor age, the age groups in the balance have to be adjusted accordingly.

It is expected that in 2023 these adjustments of the balance will be implemented.

#### *ESP and balance*

Since March 16, 2021, the ESP allocation has been changed. Unsuccessful regular ESP allocation will be continued via deviant allocation instead of switching to ETKAS allocation. Due to this change reimbursement via the exchange balance stopped. In 2022 the ETKAC discussed the reimbursement of ESP kidneys. It is expected that in

2023 a policy for reimbursement of ESP kidneys will be finalized.

#### *Imlifidase:*

Imlifidase is a drug used for HLA desensitization before transplantation. A working group of the ETKAC started a discussion on the use of Imlifidase for highly sensitized patients, who are waiting for more than 3 years in the Acceptable Mismatch (AM) program. In 2022 a protocol for Imlifidase within the AM allocation was formulated and preparations are made for the implementation. The implementation of AM Imlifidase is planned during the first six months of 2023.

### Tissue Typing Advisory Committee (TTAC)

The TTAC has worked on the prerequisites for introduction of the virtual crossmatch within Eurotransplant. With the implementation of virtual crossmatch in allocation in January 2023, unacceptable antigens can be listed for all 11 loci (HLA-A, -B, -C, -DRB1, -DRB345, -DQB1, -DQA1, -DPB1, and -DPA1), with the possibility to list alleles as unacceptable. In addition, a new reference panel (version 4.0) on the allelic level for the calculation of virtual panel reactive antibodies (vPRA), as well as chance on an organ offer was made available. Furthermore, a new HLA table, including HLA-DQA1, DPB1, and -DPA1, was introduced for the definition of match determinants of all 11 loci. The TTAC was closely involved in adapting the inclusion criteria for the Acceptable Mismatch (AM) program and setting up the Imlifidase AM program.

### Organ Process Chain Committee (OPCC)

The change in transport policy was implemented in 2022. This policy changed the responsibility of donor organ transport from donor to transplant/organ procurement

organization. The discussion on sharing images with the donor information is continued. However, this project will be postponed until the start of the new donor registration project.

In cooperation with the competent authorities and organ procurement organizations the OPCC, drafted a policy "Guidance for handling organ donors Sars-Cov 2 positive test (PCR)". This policy was published on March 8, 2022.

#### *Cooperation continues despite COVID*

Since the start of the COVID pandemic, Eurotransplant frequently hosts video calls with representatives of the competent authorities and organ procurement organizations. The main purpose of these calls is to share developments concerning the COVID regulations which could hinder the process of organ donation, allocation, and transplantation.

In 2021, the meetings were more informative on national developments in relation to Sars-Cov 2. In early 2022 a broad discussion started on the possible use of Sars-Cov 2 positive donors. The policy was not to report Sars-Cov 2 positive donors. As the discussion progressed, Eurotransplant OPCC and international experts were involved. The discussion of this extended group resulted in positive advice to report organ donors Sars-Cov 2 positive test and a "Guidance for handling organ donors Sars-Cov 2 positive test (PCR)". This Guideline contains the prerequisites and conditions under which these organ donors can be reported, as well as a strong recommendation for the information needed for the transplant center to carry out a good risk assessment of the organ offer.



In 2022, 127 donors were reported with a Sars-Cov 2 positive test. Of these 127 donors, 109 donors had at least one organ transplanted. In total of these 109 donors, 329 organs have been transplanted.

The regular video calls are highly appreciated by the participants and are being continued in 2023.

### Allocation services

Allocation services is the primary process of Eurotransplant. The major task of the department is the allocation of donor organs 24 hours a day, 7 days a week. The department consists of 51 employees: 5 doctors, 2 team managers and a team of 16 allocation & waiting list officers and 28 flex allocation officers. The department trained 7 new colleagues.

The start of 2022 was erratic. Less donors were reported in January compared to the previous year. However, in February, the number of donors was at the same level as in 2021, with fewer donors being reported in the following months. A clear recovery is seen in the last 3 months of 2022. Despite the poor start we can report an increase of used donors of 2% (+ 41) and transplanted organs of 1% (+56).

In February 2022, Eurotransplant has joined the FOEDUS platform. The FOEDUS platform is an electronic platform for organ exchange of surplus organs. 19 Countries are participating in FOEDUS. In 2022, compared to 2021, the import of surplus organs which were transplanted in the Eurotransplant region, increased with 50 organs.

The effects of the COVID-19 pandemic did not influence allocation of organs. The staffing of the allocation office was not affected by the pandemic in 2022.

Two infographics were developed:

1. The nomenclature used and flowchart of the allocation process.
2. An overview of all urgency requests and the respective forms.

Both infographics can be downloaded from the [member site](#).

Eurotransplant will continue working on improvements of its services.

### Communications Department

Eurotransplant is supported by a Communications Department (COM) that has an advisory and supporting role in external and internal communications. More specifically, COM is responsible for up-to-date information on the websites, distribution of the (digital) Annual Report and news updates, providing information about projects and innovation in working procedures and software applications as well as (social) media management and organization of congresses and meetings.

In September 2022, COM was responsible for organizing an on-site version of the Annual Meeting. During this successful event at venue Van der Valk Sassenheim in the Netherlands, the Eurotransplant Community enjoyed networking face-to-face, sharing knowledge and was able to experience live presentations.

In 2022, COM focussed on continuously optimizing existing channels such as the website, membersite, LinkedIn and Twitter. Not only has user experience been improved, but also quality and quantity of interesting, relevant content has been increased. COM is aiming at increasing visibility of who we are, what we do and what we achieve, together.

This year COM also kept working on bonding and engaging with colleagues in the Leiden office, by intensifying the use of ETinside (the intranet application on our Sharepoint platform). By means of the monthly News Update meetings, colleagues were structurally informed on what was going on in specific departments or within certain projects.

Due to the tight labor market, it is also difficult for Eurotransplant to fill vacancies within a reasonable period of time. That is why COM has contributed to improve labor market communication. Among others, the social importance of Eurotransplant is now more emphasized in vacancy descriptions as this appears to be a key driver for candidates to apply for a position. Also, by referring to interviews with employees on the website, the human factor is added to job descriptions, giving candidates a positive impression of Eurotransplant as an interesting employer.

Dealing with media and providing public information in a transparent and reliable manner, continued to require much attention in 2022. Throughout the year we received numerous requests for input on articles in newspapers and in magazines for medical professionals as well as interviews.

### 2023

In 2023, COM will work on improving the visibility of the organization. Aiming at members of our community, internally at colleagues in the Leiden office and externally aiming at qualified professionals considering changing jobs. Among others a new corporate video will be produced, as well as a series of video portraits of international professionals with whom we are 'together on a life-saving mission'.

## Data Services department

The Data Services department consists of two sub teams:

- 1) The data management and data warehouse team.
- 2) The registry team.

The Data Services department is responsible for delivering data for secondary use such as studies, evaluations, national competent authorities, press and international registries outside Eurotransplant (ET). The team consists of 2 data warehouse or Business Intelligent specialists, 2 data managers, 2 registry officers, a registry coordinator, and a team manager (total +- 7 fte (full-time equivalent)). During 2022, 3 new team members were recruited for open vacancies and extensively trained by the other staff members to become operational. At the end of 2022, the team manager found a new challenge outside Eurotransplant and the recruitment of a successor was started.

The data management /data warehouse team focusses on creating and maintaining Eurotransplant's data warehouse, reporting tools and statistics library. The Registry team is responsible for the collection of data on recipient transplant follow up and additional medical data that are relevant for research and analytics to the benefit of allocation development. The two teams together are responsible for delivering good quality data for secondary use.

### Activities in 2022

The team as a whole is responsible for delivering complete and good quality data for secondary use. A total of 287 data requests were processed. This is a slight decrease compared to 2021. Also, 482 data imports and corrections were executed by our data managers.

The Data Services department finalized the restructuring of Eurotransplant's Data Warehouse, the DWH 3.0 project. The restructuring of the Data Warehouse is important to develop a more effective distribution of data. The next step is to replace the current reporting tool with a more modern and flexible system, that will enable Eurotransplant to implement a new Statistics Report Library and to improve the reports that the department provides for a diverse group of users. To that effect, an external expert was hired to build an inventory of user requirements and initiate a proof of concept. Based on that, three firms were selected to perform the proof of concept based on a test dataset supplied by Eurotransplant. This process will continue in 2023.

The registry staff has supported three major international studies for the benefit of allocation development. In addition, they supported a long-standing wish of the medical staff to ask all centers to re-evaluate whether all patients should still be on the active waiting list. During 2022, the department was involved in the virtual crossmatch program, described in [chapter 3.4 Information Services and Software Development](#), and in the [European project BRAVEST](#).

The department worked continuously on adapting the script for and delivering the new data (so called 'Neu Data') set for the National German Transplant Registry (NDTR). The NDTR combines donor, patient transplant and follow up data from different institutions in Germany (DSO and IQTIG) and Eurotransplant, in order to facilitate the availability of a combined dataset for research. Since a long time and due to the complex roles, that Eurotransplant executes within the GDPR, with respect to their mandate of each of the countries, Eurotransplant was still in the process of re-establishing the data exchange agreements with the

European Liver Transplant Registry (ELTR) and the US based registry of the International Society for Heart and Lung Transplantation (ISHLT). The contract with the ELTR has been signed, the negotiations with the ISHLT will continue in 2023.

### 2023

In 2023 the focus will be on the tasks related to improving data quality. Testing and improving the DWH 3.0 is a continuing task: modifications in the data sources and changing requirements of the users of the Data Warehouse need to be dealt with on a regular basis.

## Financial management

On November 28, 2021, the 2022 budget proposal was presented to the Financing authorities and accepted with one major change. Because of the result on salary costs in 2021, Eurotransplant was asked to reduce the salary budget in 2022 with about 3% (325 k€). A major point of concern was the rise of the registration tariffs because of the high settlements of 2020. Eurotransplant has reduced the registration tariffs by compensating for settlements (with the amount of the positive result of 2020). For 2022, budget was reserved for the continuation of the ENISnext project, various smaller IT projects, and continuation of the regular Eurotransplant processes. The Financiers want to keep a close watch on the ENISnext project with quarterly progress report meetings.

For 2022, additional costs were foreseen because of the ending of the Shared services with the NTS, which would have a major effect on previously shared costs. Additional costs arose for the IT infrastructure personnel (now fully paid by Eurotransplant), for formerly shared contracts and for restructuring the Infrastructure department. These additional costs were partly compensated in the budget

and partly by a reimbursement made by the NTS. As of January 2022, the Shared services on IT infrastructure with the NTS came to an end and the remaining services were separately invoiced.

The ENISnext project (Oracle forms replacement) was separately reflected in the total budget. The strengthening of IT through a series of projects bundled in an IT-roadmap was financed from the regular IT budgets.

The finalized budget 2022 was approved by mail.

The financial situation in 2022 may still have been influenced by the COVID-19 pandemic, leading to fewer registrations, but no financial problems occurred. The Eurotransplant registration income is guaranteed, but a decrease in the number of waiting list registrations, during the year, influenced the cash position negatively. Overall, the number of invoiced registrations was 6.4% lower than forecasted. The lower income was largely compensated by positive non-registration income, lower salary costs and overall lower material costs (especially external personnel, consultancy and IT software costs). Due to a substantial positive result in 2022, the cash position (liquidity) remained safe, and even increased during the year from 2.6 M€ at the beginning, to 2.7 M€ at the end of 2022.

On November 1, 2022, the 2023 budget proposal was discussed with the Financing authorities. Eurotransplant presented a budget scenario to moderate the rise of the registration tariffs, since again high settlements from 2021 came about. A total reduction of the budget with 1.2 M€ consisted of a refund of the 2019 Housing project, a negative result on operations, a limit on the indexation of the 2021 material budget and a reduction of the salary budget in 2023 with almost 10% (700 k€). This

was justified because of the expected positive result and healthy cash position at the end of 2022. Serious risks for 2023 are the rise of the inflation and the expected high wage demands in the new Collective Labor agreement, because of this inflation. These risks were to a certain extent mitigated for in the budget. For 2023, separate requests were made for the continuation of the ENISnext project, the Virtual Crossmatch project and the regular Eurotransplant processes.

The presented scenario was accepted as the finalized budget 2023 and approved in the meeting.

### Human Resources department

The Human Resources department (HR) supports managers with a variety of complex HR issues, is responsible for the development and adjustment of HR policies and takes care of the administrative handling of all personnel and salary changes.

In 2022, there have been personnel changes because the HR department has expanded with an HR Business Partner. Together with a Manager HR and an HR Officer, the department consists of three staff members in total at the end of 2022. In 2022, HR mainly focused on the themes Learning & Development and recruitment.

### Learning & Development

As described in the HR Strategy 2022-2025, learning and development was one of the priority themes of 2022. An interim strategic HR advisor started the project to create a new employee evaluation cycle by interviewing several employees from different teams, including managers, the HR department, and the Board of Management. By analyzing the results of the interviews, the advantages

and disadvantages of the current employee evaluation cycle were identified, as well as which improvements were needed. At the end of 2022, a proposal was made for a new employee evaluation cycle: the actual implementation will follow in 2023.

Another important aspect is strengthening the core values of Eurotransplant, which are published in the HR strategy. To that effect, two courses were organized for all employees, (1) a professional conduct training, and (2) a training on giving and receiving feedback. Both courses will continue in 2023. Furthermore, a training specifically aimed at the managers, started in 2021 was continued in 2022.

### Implementing hybrid working

The HR department has designed and implemented a policy to allow employees to either work from home or at the office, including a financial component. The leading value within this policy is sustainability, which is why travelling by bike or public transport is preferred.

### Recruitment

One of the biggest challenges is the recruitment of new employees. The labor market is very tight and competitive and will probably continue to be so in 2023. As the figures in [Chapter 8 “Eurotransplant Personnel related statistics”](#) show, Eurotransplant succeeded in recruiting 18 new employees, including employees for Allocation Services (2 regular/6 flex), Data Services (3), System Development (2), HR department (2) Communication (1), Office Center (1) and Information Services (1).

Recruitment procedures include for example writing recruitment texts, publishing vacancies, sending invitations and rejections, conducting job interviews and

terms of employment interviews, drawing up employment contracts and taking care of the administrative handling of the recruitment.

### Follow up in 2023

The focus of HR for the years to come is realizing the important themes of the HR strategy, such as the implementation of the new employee evaluation cycle. A very important theme will also be recruitment. Therefore, HR will create a recruitment strategy, including defining our employer branding to also focus on keeping employees on board. The recruitment strategy will also include a campaign strategy, with the aim of effectively reaching and attracting potential candidates.

### Connection with other departments

HR relates to all Eurotransplant departments. HR supports management and employees of all departments, also with the inflow, throughflow and outflow of employees. For the payroll administration and payment, HR works together with the Financial Administration Department. For HR policies, HR works closely with the Management Team, Board of Management and the Works Council.

### Information Services and Software Development

The Information Services department is responsible for product management, functional application management and customer acceptance tests of the custom applications of Eurotransplant, as well as for functional application management of several standard applications. The Software Development department is responsible for development of the custom applications that are necessary to support the primary processes of Eurotransplant.

Eurotransplant currently has two Scrum teams with staff from both departments, that work on the custom applications. In 2023, Eurotransplant will grow to three Scrum teams, one for each main process: a Donor, a Recipient and an Allocation team.

### Projects

By far the most important project in 2022 was the Virtual Crossmatch project. Therefore, a short description of this project will be given. In the current Allocation process two crossmatches need to be done. The Allocation Crossmatch (done at the Donor center) and the Transplantation Crossmatch (done at the Transplant center). For the Allocation Crossmatch it is necessary that serum of all immunized recipients is sent to all donor centers every three months.

The aim of the Virtual Crossmatch project is to replace the Allocation Crossmatch by a Crossmatch done through a computer. Doing so has several advantages:

1. It leads to a higher quality in the allocation process.
2. It saves money and effort (since sending serum of all immunized patients to all Donor Centers every three months is no longer necessary).
3. The allocation process will go faster (Allocation crossmatch takes 3 to 4 hours, Virtual crossmatch takes several minutes).
4. Manual input of Donor HLA is no longer necessary (this saves time and reduces the risk of errors).

Because of these benefits, Virtual Crossmatch had been given the highest priority in 2022.

In order to use Virtual Crossmatch, Labs need to start working with a new version of the tissue typing software. This new software will deliver HLA in HML format in a file. All Lab software vendors have delivered new versions of their software, complying with the Virtual Crossmatch requirements.

Eurotransplant has made adaptations to several systems, and has built new software, to facilitate Virtual Crossmatch. A new immunology service was built, which enables Labs to upload the HML files to Eurotransplant. Upon receiving the HML files, the HLA information is extracted from the files. Since working with the HML files is rather new, the results of the extractions are fed back to the Lab worker to verify the results and correct them if necessary.

Furthermore, the software of the Deutsche Stiftung Organtransplantation (DSO) had to be adapted for the Virtual Crossmatch process. This was achieved in very good cooperation between DSO and Eurotransplant.

The Virtual Crossmatch is expected to go live on Tuesday January 24th, 2023. This date had been agreed upon at an earlier stage.

In the first three months after go-live, Virtual Crossmatch will run in shadow mode, meaning that additional to the Virtual Crossmatch, also a physical crossmatch will be done. The shadow mode is used to investigate the results of the Virtual Crossmatch thoroughly before abandoning the physical crossmatch.

### Other projects

A lot of effort of the teams in 2022 was spent on Virtual Crossmatch. Nevertheless, also other projects were executed.

In the process of renewal of all Match software, the Liver match and the Kidney match were built from scratch into modern technology.

Renewal of the Donor data application, with a new interface and extra automatic tests, was continued in 2022 and will be finished in 2023.

The same applies to the renewal of the ENISnext internal screens, for the Eurotransplant employees. In this application a modern, future proof user interface and automatic tests were added.

### Test automation

In the previous paragraph automatic testing was mentioned several times. A short explanation is given here. For Eurotransplant it is imperative that all applications work correctly and according to the specifications. To support this goal, Eurotransplant puts a lot of effort in automatic testing. Automatic tests are built into the code on several levels: on the lowest level: units test, on intermediate levels: integration test, and on the overall level: end to end test.

In all applications that have been delivered in the last couple of years these automatic tests have been built in, thus increasing the quality, and reducing the chance of errors in the code.

Automatic tests are also very important for the lifetime of an application. If adaptations are made in a later stage, the chance to catch errors through the automatic test are higher compared to manual testing.

### Plans for 2023

In 2023 a third Scrum team will be established.

The following projects are planned to be delivered in 2023:

- Renewal of Donor Data.
- New Intestine Match.
- Renewal of the ENIS screens internal screens, for the Eurotransplant employees.
- Imlifidase.
- Recommendations for Kidney, Liver and Pancreas.

The following projects are planned to start in 2023:

- A completely new Allocation application.
- A completely new Urgency application.
- New Web based version of DPA.
- Thoracic Match, rebuilt from scratch.

### Infrastructure 2022

The year 2022 was mostly dedicated to the preparations of two complex migration projects, the Oracle migration to a new hardware system and moving data from local drives to the cloud (SharePoint).

Furthermore, most projects for the implementation of a modern-day workspace were completed.

### Oracle migration

In September 2022, due to delays in preparations, the first trail migration was started where all components, the back-up and failover features and the connections with other systems were tested.

In 2023, migration of the entire Oracle system environment to new hardware will be started. A necessary step as the Oracle system needs replacing.

### The modern-day workspace

Due to the implementation of a modern-day workspace for users to work anywhere, anytime at the office or remotely, to share and collaborate on data and to enhance productivity different projects were planned for 2022.

The following projects were completed at the end of 2022:

- Secure Cloud printing for mobile devices.
- Extra security with multi-factor authentication for Microsoft accounts.
- Replacing all mobile devices (laptops) with new ones
- Autopilot to automatically setup and reconfigure new devices for users.
- Implementing MDM and MAM tools to protect our business data on mobile devices against theft.
- Remote endpoint management to manage and secure our mobile devices.

### SharePoint migration

To be able to work with business data anywhere and with external users, Eurotransplant needs to store data online. SharePoint was the preferred solution for this.

In 2022 the department started preparations and selections for a third party to assist with the migration.

In 2023 the migration of data from local drives to the cloud (SharePoint) will start.

### Office Center

The Office Center consists of a secretariat as well as Facility Management and has a total of 9 members. The purpose of the department is to offer various kinds of support so that Eurotransplant can focus on the primary process of organ allocation. As a support function for Eurotransplant, the Office Center handles secretarial matters for internal and external stakeholders. While Facility Management pays attention to the interests of the employees.

In 2022, the Office Center, under new management, concentrated on core tasks, including administrative support for the Eurotransplant Councils, Committees and Supervisory Board, organization of catering and events as well as assistance for the Board of Management. In order to be able to react promptly to inquiries, the internal meeting structure was adapted and expanded with agile meeting elements. Prior to the Eurotransplant Annual Meeting, the election processes of new members of the Council of Medicine and Science and the appointment of delegates of the transplant programs were monitored. Furthermore, the focus was put on improving work processes, such as processing contact data and optimizing the registration of documents.

In 2023, the emphasis will remain on the core tasks of the Office Center. However, the continuous development of processes will remain important to be able to react flexibly to changes within Eurotransplant. One of the planned changes is the implementation of video conference equipment at the Leiden office. This will lead to an improvement in the hybrid meeting culture internally but also for all external stakeholders. Additionally, it will be defined how the creation of documents such as agendas, minutes, and reports can be further standardized within the foundation.

As a service unit, the Office Center is a focal point for all departments at Eurotransplant. Particularly close cooperation exists with the Communication Department, this cooperation becomes especially evident in the preparation of the Annual Meeting. In addition, the Office Center benefits from a close collaboration with the Infrastructure Department, for example when choosing and setting up the new video conference equipment.





### 3.5 QUALITY, SECURITY and PRIVACY

The department Quality, Security and Privacy advises and supports the Board of Management in the development, implementation, assurance and testing of the quality, security, and privacy policies at all levels of Eurotransplant. The aim is to comply with the ISO9001:2015 standard, the ISO27001 standard and the General Data Protection Regulation (GDPR) and to ensure that aspects of quality, security and privacy will become part of the daily processes within Eurotransplant.

## Quality and Security

The Quality Management System (QMS) and the Information Security Management System (ISMS) work according to the Plan-Do-Check-Act-cycle (PDCA cycle). Within Eurotransplant there are three cycles to ensure systematic monitoring of proposed improvement measures. The first cycle focuses on strategic/tactic risk management and takes place every three years. The second cycle is an annual cycle focusing on the functioning of both management systems through internal and external audits. The third and last cycle is a continuous cycle of incident management and change management. A short summary of the outcome of the first two management systems is presented below.

## Risk management

It is determined for each business risk of Eurotransplant whether the risk has a quality aspect and whether it concerns an information security aspect. These risks together with the analyses of the stakeholders and context of Eurotransplant are the foundation of the Quality Management System and the Information Security Management system. They provide valuable insight into the

risks, but also into the opportunities for the organization. For every risk, a measure is determined to manage the risk. Progress is measured every three months.

## Internal audits

In 2022, the audits took place according to the long-term audit plan, approved by the Board of Management. The internal audits took place according to a process- and risk-oriented methodology. All findings were reported and registered for follow-up activities.

## Audits by third parties

In July 2022, both management systems were certified by DigiTrust, an accredited certification firm. This means that the Quality Management System complies with the ISO9001-standard and the Information Security Management System complies with the requirements of the ISO27001-standard. The certificates are valid until July 2025 and every year a surveillance audit is conducted by Digitrust. Both certificates demonstrate that Eurotransplant works seriously and structurally on quality and information security.

As part of the agreements with the National Competent Authorities of Germany and The Netherlands, each year an audit is performed by the Prüfungskommission of the German Bundesärztekammer and the Dutch Transplant Foundation. The audit by the German Bundesärztekammer took place in October 2022 and the audit of the Dutch Transplant Foundation was moved to the beginning of 2023.

## Incidents

Eurotransplant has an open culture in which reporting of incidents is stimulated to identify possible risks in work

processes and highlight opportunities for improvement. The Eurotransplant quality registration system is the basis for registering and analyzing incidents and complaints concerning the primary process of Eurotransplant, allocation. All incidents are analyzed by a decentralized incident committee consisting of several employees of the allocation department. This committee presents a selection of the incidents that happened each month to the allocation department in their monthly meeting to ensure lessons are learned.

## Reported complaints

Year	2020	2021	2022
Total	478	445	380
Security aspect	-	-	13

The number of reported incidents and near-incidents has decreased compared to 2020 and 2021. In 2022 we started to monitor the information security incidents. An evaluation was carried out to determine whether the measures taken were effective in 2021 and this continued in 2022. Partly due to all improvement measures, a reduction of 51 incidents has been achieved in two years.

## Complaints

Not many complaints were reported to the Eurotransplant office via the official mail address [complaints@eurotransplant.org](mailto:complaints@eurotransplant.org). We believe that a lot of the questions/complaints were directly answered by the staff of Eurotransplant, and that the availability of our Helpdesk is of great support to our partners. In 2022, 12 complaints were reported which served as input for improvement. Eurotransplant acted as a mediator between donor centers







# 4 Histocompatibility Testing



# Histocompatibility Testing

Yvonne Zoet, Marissa van der Linden-van Oevelen,  
Cynthia Kramer and Sebastiaan Heidt  
*Eurotransplant Reference Laboratory, Department of  
Immunohematology and Blood Transfusion,  
Leiden University Medical Center, Leiden, the Netherlands*

## 4.1 Introduction

An ongoing task of the Eurotransplant Reference Laboratory (ETRL) is the maintenance and improvement of high-quality HLA typing, screening for transplant relevant antibodies and crossmatching by Eurotransplant (ET) affiliated Tissue Typing Centers (TTC). This task is performed by means of organizing External Proficiency Testing (EPT) exercises, as well as collecting data on positive donor center crossmatches. Furthermore, the ETRL initiates studies and promotes discussions on possible new recommendations with the help of the Tissue Typing Advisory Committee (TTAC), and through discussions at the annual Tissue Typers meeting and the extramural meetings. In addition, the last 30 years, the ETRL has addressed the problem of highly sensitized patients by running the Acceptable Mismatch (AM) program within Eurotransplant, and by promoting the Acceptable Mismatch principle outside the Eurotransplant region.

The ETRL supports the Eurotransplant-affiliated TTC, as well as TTC from emerging countries. The ETRL is involved in the discussion on modification of the Eurotransplant

kidney allocation system (ETKAS) and finally, the ETRL provides 24 hours a day, 7 days a week duty for all transplantation related immunological aspects for patients within Eurotransplant, including those in the AM program.

## 4.2 Eurotransplant External Proficiency Testing Schemes

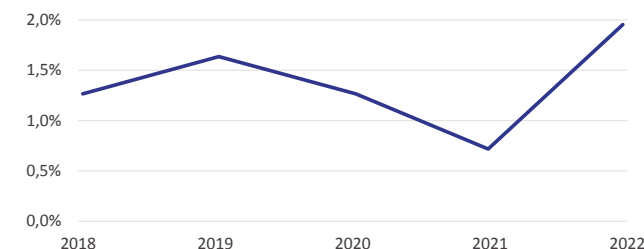
EPT exercises are performed with the aim to determine the performance of the individual TTC. The EPT results of 2022 are reported below.

### 4.2.1 External Proficiency Testing on HLA typing

Each participating laboratory received 12 blood samples for HLA typing and was asked to report the results of the HLA-A, -B, -C, -DR, and -DQ typing. Analysis of the results of the HLA typing EPT is consensus based (75% consensus). In case of a lack of consensus, the reference typing as determined by the ETRL will be considered correct, in line with the latest version of the EFI EPT standards for providers ([www.efiweb.org](http://www.efiweb.org)). The participants had to report their results on the basis of matching determinants, a translation of molecular typing results into serological equivalents, which are used in the Eurotransplant matching algorithm. Less than half of the participants used both cytotoxicity and molecular typing (25/68) for HLA class I. For Class II all participants used molecular typing and incidentally cytotoxicity (4/68). The TTC use the results of the serological typing mainly as an indicator for the degree of expression of the HLA antigens on the cell surface, in order to facilitate the evaluation of the crossmatches. Amongst the total of 811 typing results reported, 3 results for typing HLA-A, -B, -C, -DR, -DQ were incorrect (1.2%). Discrepancy rate including Bw4/Bw6 and DRB3/4/5 discrepancies is 2.0%. Bw4 must only be

assigned on basis of HLA-B antigens, and not on basis of HLA-A antigens. In figure 4.1 discrepancy rates of the past five years are depicted.

Figure 4.1 – Discrepancy rates in HLA typing 2018-2022



### 4.2.2 External Proficiency Testing on crossmatching

The participants of this EPT exercise were asked to perform crossmatches using peripheral blood mononuclear cells and sera provided by the ETRL. The TTC applied the local Complement Dependent Cytotoxicity (CDC) crossmatch protocols to simulate day-to-day practice, using a separate condition of dithiothreitol (DTT) treatment to disintegrate IgM antibodies. The TTC must use either unseparated peripheral blood cells or separated T cells. Next to this, the TTC had the opportunity to also perform crossmatches on separated B cells, although the reported final results must be based on unseparated and/or T cells only. The final crossmatch results had to be reported as is done for organ donor procedures.

In total, 12 sera had to be crossmatched by the participating laboratories. Each time, the three blood samples, which were sent for HLA typing, were also used for crossmatching with three sera. Over the whole period, 36 crossmatches were performed. There are two types of

laboratories participating in this EPT, and therefore the results are reported separately. Donor centers (31) are the laboratories on duty for post-mortal organ donors, while recipient centers (38) are the laboratories performing only recipient associated immunological diagnostics. The latter group includes also the laboratories from outside Eurotransplant. The target cells and the respective results are presented in table 4.1.

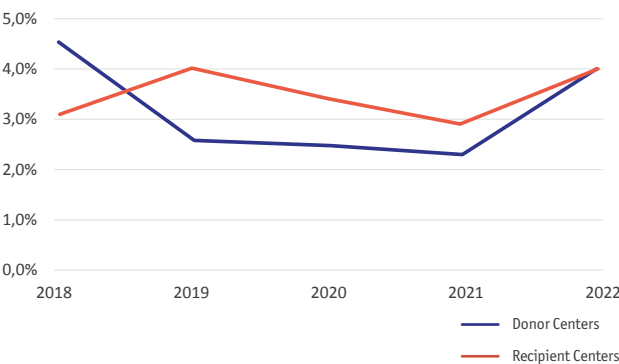
Overall discrepancy rates over the past years are shown in figure 4.2.

Table 4.1 - Results of the EPT on crossmatching (DTT = dithiothreitol):

The number represents the percentage discrepancy rate on the basis of 75% consensus. The results are comparable to those of earlier periods.

	Unseparated		T cells		B cells		Final results	
	(-)DTT	(+)DTT	(-)DTT	(+)DTT	(-)DTT	(+)DTT	(-)DTT	(+)DTT
Donor	1,4%	2,9%	3,2%	4,2%	3,4%	5,3%	2,6%	5,3%
Recipient	2,4%	2,6%	2,9%	3,0%	2,0%	2,2%	4,1%	3,8%

Figure 4.2 - Discrepancy rates for crossmatching 2017-2022



4.2.3 External Proficiency Testing on screening

In 2022, the scheme of the EPT exercise on screening for HLA-specific antibodies comprised of one shipment containing 12 sera. The HLA typing of the serum donor was reported to the participants beforehand. For screening detection of HLA-specific antibodies, the ETRL received results from 76 participants. Discrepancy rates are depicted in table 4.2.

Table 4.2 - Results of the EPT on Screening Detection

Discrepancy rates per technique, based on 75% consensus. Because of low number of participants (2), no discrepancy rates for ELISA are reported.

Luminex		CDC%PRA		Final Results	
Class I	Class II	% (-)DTT	% (+)DTT	Class I	Class II
0,7%	2,1%	7,7%	6,1%	1,9%	2,4%

For screening identification of HLA antibodies, the ETRL received results from:

- 57 participants using the CDC assay
- 75 participants using the Luminex based Solid Phase Assay Single Antigen (SPA-SA) testing
- 3 participants using alternative Solid Phase Assays based on Luminex or ELISA. These results could not be analyzed due to the low number of participants.
- 15 participants using a Solid Phase Single Antigen C1q or C3d assay.

The analysis of the results is based on 75% consensus for positive results in CDC, 95% consensus for positive results in SPA-SA and for SPA SA PLUS and the 95% consensus (for CDC, SPA-SA, and SPA SA PLUS) for negative results. If a minimum of 75% (CDC) or 95% (SPA-SA) of participants report that a specificity is positive, then this specificity is marked positive. If 95% of the participants report a

specificity as negative, then this specificity is regarded as not present in the respective serum.

The analyses of this EPT exercise are presented below. The analysis was performed as follows:

Concordant % =  $\frac{\text{total number of concordant (consensus) specificities}}{\text{total number of scored specificities from all centers}}$

False negative % =  $\frac{\text{total number of false negative specificities}}{\text{total number of scored specificities from all centers}}$

False positive % =  $\frac{\text{total number of false positive specificities}}{\text{total number of scored specificities from all centers}}$

Table 4.3 - Results of the EPT on screening identification 2022

Note for SPA SA PLUS a 95% consensus rule is applied, which means that given the number of participants (15) no false positives or false negatives could be identified.

Method	Participants (N)	Concordant %	False negative %	False positive %
CDC	57	43,2	4,7	12,8
SPA-SA	75	69,4	0,62	0,41
SPA-SA Plus	15	30,9	0	0

The SPA-SA resulted in a significantly higher number of recognized HLA specificities per tested serum compared to CDC. In total, 302 consensus specificities were found in SPA-SA vs. 11 consensus specificities in CDC. It is important to note that not all antibodies detected by solid phase assays only are relevant for transplantation. Percentages of false negatives and false positives for CDC and SPA SA over the past years are shown in figure 4.3 and figure 4.4.

Figure 4.3 - Percentages false positives and false negatives for CDC 2017-2022

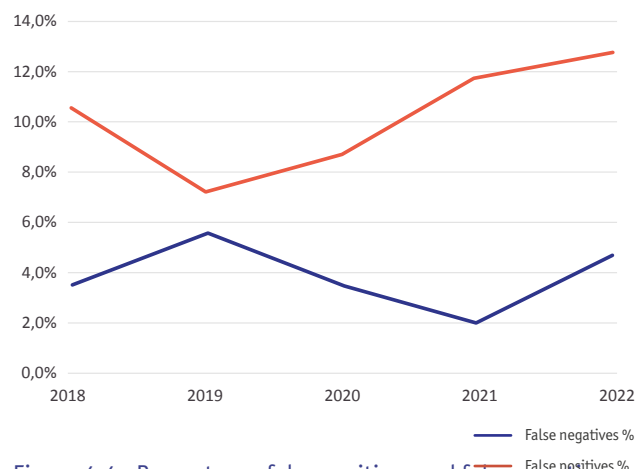
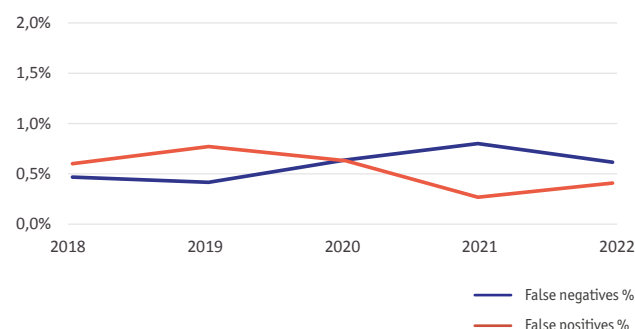


Figure 4.4 - Percentages false positives and false negatives for SPA SA 2017-2022



#### 4.2.4 Patient-based cases

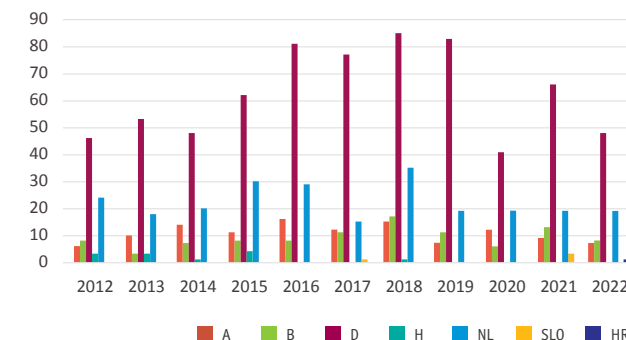
In 2022, three patient-based cases were sent to the participants, who were required to provide an advice on whether a transplant should go ahead based on the immunological data provided. All Eurotransplant affiliated centers participated in this mandatory exercise. Results of this EPT will be discussed during the annual extramural meeting.

### 4.3 The Acceptable Mismatch Program

The Acceptable Mismatch (AM) Program organized by the ETRL is an efficient tool to enhance transplantation of highly sensitized kidney patients. The AM program is open for all highly sensitized patients waiting a kidney transplant within Eurotransplant, pending approval by the ETRL based on predefined eligibility criteria. Information on participation can be obtained directly from the ETRL (e-mail: [etrlam@eurotransplant.org](mailto:etrlam@eurotransplant.org)), the Eurotransplant Medical Administration, or from the ETRL website (<http://etrl.eurotransplant.nl>).

Since the start of the program in 1989, around 3000 patients participated and more than 1780 patients were transplanted with excellent transplant survival and low rejection rates, comparable to non-immunized ETKAS transplants. In 2022, 200 applications for the AM program were received by the ETRL, of which 142 met the criteria for inclusion. In total, 83 AM patients were transplanted with a crossmatch negative kidney through the AM program (figure 4.5).

Figure 4.5: Reasons for positive donor crossmatches



### 4.4 Other activities

#### The ETRL website

The website of the ETRL (<http://etrl.eurotransplant.nl>) is available for all laboratories working in the field of transplantation, immunology, and histocompatibility. The site gives information about the duties of the ETRL, the EPT program, the AM program and (extramural) meetings for tissue typing laboratories. For the AM program, additional information and forms for application can be found on the site. Further information of future meetings within Eurotransplant as well as reports of these meetings can be found.

The EPT part of the EPT website (<http://www.etrl.org>) is only accessible for EPT participants through a password. In addition, the following tools can be found on the public part of the ETRL EPT website:

- Virtual PRA calculator, which is based on the ETRL reference database 4.0.
- Donor frequency calculators for ABO identical, ABO compatible ABO ET compatible, and the Acceptable Mismatch Program.
- Haplotype generator.

### **Eurotransplant Annual Meeting; Annual Tissue typers meeting. September 2022**

The Tissue Typers Session 2022 was held again as an onsite meeting in Sassenheim, the Netherlands. The meeting started with a lecture about the impact of sensitization on waiting time prior to kidney transplantation in Germany, by Daniel Zecher (Regensburg, Germany). Next, Hans de Ferrante (Eindhoven, the Netherlands) showed how waitlist outcome predications can be done and what the influence of sensitization is on the ETKAS and AM waitlist. The meeting was concluded with a lecture from Ben Furth (ET office Leiden, the Netherlands), who discussed the practical implementation of the virtual donor crossmatch within Eurotransplant.

### **Online Extra Mural Meeting**

In 2022 no Extramural tissue typers meeting was organized in order to reinstall the annual physical meeting rotation scheme. In March 2023 an onsite Extramural meeting will be organized.





# 5 Reporting of non-resident transplants in Eurotransplant





# Reporting of non-resident transplants in Eurotransplant

Eurotransplant signed the Declaration of Istanbul on organ trafficking and transplant tourism in 2008. In doing so, Eurotransplant made a clear statement that it expects that Eurotransplant transplant centers shall abstain from any activity involving transplant tourism and organ trafficking.

In 2012, the Board adapted the non-resident policy, wherein it is stated:

It is neither the legal role nor the responsibility of Eurotransplant to make rules about non-residents. In order to achieve the best possible transparency regarding transplantation activities concerning non-residents, Eurotransplant will report on an annual basis per transplant center all non-resident transplants according to national legislation on residency status in its Annual Report.

These reports will be based on data the centers provide to Eurotransplant. Eurotransplant recognizes that relying on self-reporting by transplant centers has its limitations but given the limited legal role and responsibility of Eurotransplant, it is felt that this approach is appropriate. It is also in line with self-reporting of other demographic patient data by transplant centers to Eurotransplant.

Tabel - Non-resident transplants (deceased donor) in 2022

Country	Center	All transplants	Non-Resident transplants
Austria	AWG	314	1
Belgium	BLA	148	1
Germany	GHG	127	1
		Total:	3

*Disclaimer:*  
*Non-residents are transplant recipients from countries outside the Eurotransplant region. The residency status is specified and verified by the transplant center and is not verified by Eurotransplant.*





# 6 Transplant programs and their delegates in 2022





# Transplant programs and their delegates in 2022

According to the Articles of Association of Eurotransplant International Foundation (available on the [Eurotransplant website](#)), each program director has the right to delegate up to two natural persons in the Assembly for each program in which it performed transplantations during the preceding year. Programs are defined as transplantation areas: kidney, heart, lungs, liver, pancreas or tissue typing, which have the approval of the competent and relevant authorities. The number of delegates that may be assigned per program depends on the number of votes. The number of votes per program is determined by the number of transplantations carried out in the previous period (April 1 to March 31). Programs with one vote can send one delegate, programs with two votes may either nominate one delegate with two votes or two delegates with one vote each. On each reference date (March 31) the persons delegated by a center in the Assembly need to be re-determined, and centers are subsequently asked to confirm the names of their delegates.

If a center does not appoint a delegate(s) the center has no vote in the Assembly. During the year, delegates may change based on information received from the head of the transplant program. The delegates mentioned below were listed as delegate in our system on December 31, 2022. An up-to-date list of delegates can be found on the Organization page on the [Eurotransplant website](#).

## Kidney programs

Austria		Delegates
AGA	Medizinische Universität, Graz	Prof. Dr. K. Eller
AIB	Tirol Kliniken GmbH, Innsbruck	Dr. C. Bösmüller
AIB	Tirol Kliniken GmbH, Innsbruck	PD Dr. A. Weissenbacher
AOE	Krankenhaus der Elisabethinen, Linz	No delegate appointed
AWG	Allgemeines Krankenhaus der Stadt Wien	Univ. Prof. Dr. R. Oberbauer
AWG	Allgemeines Krankenhaus der Stadt Wien	Univ. Prof. Dr. G. Berlakovich

Belgium		
BAN	Universitair Ziekenhuis Antwerpen	Prof. Dr. D. Ysebaert
BBJ	UZ Brussel - Campus Jette	Prof. Dr. K.M. Wissing
BBR	H pital Erasme, Brussels	Prof. Dr. A. Le Moine
BGE	Universitair Ziekenhuis Gent	Prof. Dr. C. Randon
BGE	Universitair Ziekenhuis Gent	Dr. S. Van Laecke
BLA	Cliniques Universitaire St. Luc, Bruxelles	No delegate appointed
BLG	Centre Hospitalier Universitaire, Liège	No delegate appointed
BLM	Universitair Ziekenhuis Leuven	Prof. Dr. D. Kuypers

Croatia		
COS	University Hospital, Osijek	No delegate appointed
CRI	Clinical Hospital Center, Rijeka	Prof. S. Zivcic-Cosic
CZA	University Clinical Hospital, Zagreb	No delegate appointed
CZM	Clinical Hospital Merkur, Zagreb	Dr. Z. Jurekovic

Germany		
GAK	Universitätsklinikum Aachen	Dr. med. A. Mühlfeld
GAU	Klinikum Augsburg	Dr. med. F. Sommer
GBB	Universitätsklinikum Knappschafts Krankenhaus, Bochum	No delegate appointed
GBC	Charité Campus Virchow-Klinikum, Berlin	Prof. Dr. R. Öllinger
GBC	Charité Campus Virchow-Klinikum, Berlin	Dr. B.G. Globke
GBM	Kliniken der Freien Hansestadt, Bremen	No delegate appointed
GBO	Universitätsklinikum, Bonn	Prof. Dr. S. von Vietinghoff
GDR	Universitätsklinikum Dresden	Dr. J. Putz
GDR	Universitätsklinikum Dresden	Dr. J.S. Stumpf
GDU	Universitätsklinikum, Düsseldorf	No delegate appointed

continues on next page



GES	Universitätsklinikum Essen	Prof. Dr. A. Kribben
GFD	<i>Klinikum Fulda, Fulda</i>	<i>No delegate appointed</i>
GFM	Universitätsklinikum Frankfurt	Mr. M. Weyrich
GFR	Universitätsklinikum Freiburg	Dr. med. B. Jänigen
GGI	Uniklinikum Giessen und Marburg	Dr. H. Karakizlis
GHA	Universitätsklinikum Halle	Dr. K. Weigand
GHB	Universitätsklinikum Heidelberg	Prof. Dr. C. Morath
GHG	Universitätsklinikum Hamburg-Eppendorf	PD Dr. F. Grahammer
GHG	Universitätsklinikum Hamburg-Eppendorf	Prof. Dr. L. Fischer
GHM	<i>Nephrologisches Zentrum Niedersachsen, Münden</i>	<i>No delegate appointed</i>
GHO	<i>Klinikum der Medizinischen Hochschule, Hannover</i>	<i>No delegate appointed</i>
GHS	Universität des Saarlandes	Dr. D.S. Schmit
GJE	Universitätsklinikum Jena	Dr. med. S. Foller
GKI	<i>Universitätsklinikum Schleswig-Holstein Campus Kiel</i>	<i>No delegate appointed</i>
GKK	Kinderklinikum der Universität Köln	Prof. Dr. D. Stippel
GKL	Klinikum der Universität Köln	Prof. Dr. D. Stippel
GKM	Kliniken der Stadt Köln GmbH Krankenhaus Merheim	Dr. A Harth
GKS	<i>Westpfalz-Klinikum, Kaiserslautern</i>	<i>No delegate appointed</i>
GLP	<i>Universitätsklinikum, Leipzig</i>	<i>No delegate appointed</i>
GLU	<i>Universitätsklinikum Schleswig-Holstein Campus Lübeck</i>	<i>No delegate appointed</i>
GMA	Universitätsmedizin Mannheim	Prof. Dr. med. A.I. Kalsch
GMH	Klinikum rechts der Isar, München	Dr. V. Aßfalg
GMH	Klinikum rechts der Isar, München	Prof. Dr. L. Renders
GML	<i>Klinikum der Universität München</i>	<i>No delegate appointed</i>
GMN	Universitätsklinikum Münster	Prof. Dr. S. Reuter
GMN	Universitätsklinikum Münster	Dr. Th. Vogel
GMR	<i>Universitätsklinikum Gießen und Marburg, Marburg</i>	<i>No delegate appointed</i>
GMZ	Universitätsmedizin der Johannes Gutenberg-Universität Mainz	Univ. Prof. Dr. Med. M. Koch
GNB	Transplantationszentrum Nürnberg-Erlangen	<i>Dr. K. Heller</i>
GRB	Universitätsklinikum Regensburg	Prof. Dr. B. Banas
GRO	Universitätsmedizin Rostock	Prof. Dr. O. Hakenberg
GST	Katharinenhospital, Stuttgart	Dr. M. Krautter
GTU	<i>Universitätsklinikum Tübingen</i>	<i>No delegate appointed</i>
GWZ	Universitätsklinikum Würzburg	Dr. A.L. Herzog

### Hungary

HBS	<i>Semmelweis Medical University, Budapest</i>	<i>No delegate appointed</i>
HBS	<i>Semmelweis Medical University, Budapest</i>	<i>No delegate appointed</i>
HBD	<i>Medical Center of the University, Debrecen</i>	<i>No delegate appointed</i>
HPC	Medical Faculty of the University, Pecs	Dr. P. Szakaly
HSZ	<i>Medical Center of the University, Szeged</i>	<i>No delegate appointed</i>

### Netherlands

NAE	Amsterdams Medisch Centrum Emma Kinderziekenhuis	Dr. A.H.M. Bouts
NAM	Amsterdam UMC – Locatie AMC	Prof. Dr. F. Bemelman
NAM	Amsterdam UMC – Locatie AMC	Dr. S.A. Nurmohamed
NGR	<i>Academisch Ziekenhuis, Groningen</i>	<i>No delegate appointed</i>
NLB	Leids Universitair Medisch Centrum	Prof. Dr. I.P.J. Alwayn
NLB	Leids Universitair Medisch Centrum	Dr. A. de Vries
NMS	<i>Maastricht UMC</i>	<i>No delegate appointed</i>
NNY	UMC St. Radboud, Nijmegen	Prof. Dr. L. Hilbrands
NNY	UMC St. Radboud, Nijmegen	Dr. P.P.C. Poyck
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. H. Kimenai
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. J. van de Wetering
NRS	<i>Sophia Kinderziekenhuis, Rotterdam</i>	<i>No delegate appointed</i>
NUT	Universitair Medisch Centrum, Utrecht	Dr. A.D. van Zuilen

### Slovenia

SLO	University Medical Center, Ljubljana	Prof. Dr. G. Mlinsek
-----	--------------------------------------	----------------------



## Liver programs

Austria		Delegates
AGA	Medizinische Universität, Graz	Prof. Dr. P. Schemmer
AIB	Tirol Kliniken GmbH, Innsbruck	Prof. Dr. S. Schneeberger
AIB	Tirol Kliniken GmbH, Innsbruck	Prof. Dr. H. Zoller
AWG	Allgemeines Krankenhaus der Stadt Wien	Univ. Prof. Dr. G. Berlakovich
AWG	Allgemeines Krankenhaus der Stadt Wien	Dr. med. G. Györi
Belgium		
BAN	Universitair Ziekenhuis, Antwerpen	Prof. Dr. D. Ysebaert
BBR	H pital Erasme, Brussels	Dr. V. Lucidi
BBR	H pital Erasme, Brussels	Prof. Dr. T. Gustot
BGE	Universitair Ziekenhuis, Gent	Prof. Dr. H.R. van Vlierberghe
BGE	Universitair Ziekenhuis, Gent	Prof. Dr. F. Berrevoet
BLA	Cliniques Universitaires St. Luc, Bruxelles	Dr. O. Ciccarelli
BLA	Cliniques Universitaires St. Luc, Bruxelles	Dr. E. Bonaccorsi Riani
BLG	Centre Hospitalier Universitaire, Liège	No delegate appointed
BLM	Universitair Ziekenhuis, Leuven	Prof. Dr. J. Pirenne
BLM	Universitair Ziekenhuis, Leuven	Prof. Dr. D. Monbaliu
Croatia		
CZA	University Clinical Hospital, Zagreb	Prof. Dr. A. Mrzljak
CZM	Clinical Hospital Merkur, Zagreb	No delegate appointed
CZP	University of Zagreb - Paediatric Medical Faculty, Zagreb	Dr. J. Vukovic
Germany		
GAK	Universitätsklinikum, Aachen	No delegate appointed
GBC	Charité-Campus Virchow Klinikum, Berlin	Prof. Dr. R. Öllinger
GBC	Charité-Campus Virchow Klinikum, Berlin	Prof. Dr. med. G. Lurje
GBO	Chirurgische Universitätsklinik, Bonn	No delegate appointed
GES	Universitätsklinikum, Essen	No delegate appointed
GFM	Universitätsklinikum, Frankfurt	Prof. Dr. A. Schnitzbauer
GHB	Universitätsklinikum, Heidelberg	No delegate appointed
GHG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	PD Dr. U. Herden
GHG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	Prof. Dr. L. Fischer
GHO	Klinikum der Medizinischen Hochschule, Hannover	No delegate appointed
GHS	Universitätsklinikum des Saarlandes, Homburg/Saar	No delegate appointed
GJE	Universitätsklinikum, Jena	No delegate appointed

GKI	Universitätsklinikum Schleswig-Holstein, Kiel	Prof. Dr. F. Braun
GKI	Universitätsklinikum Schleswig-Holstein, Kiel	PD Dr. M. Linecker
GKL	Uniklinik Köln-Lindenthal, Köln	Prof. Dr. D. Stippel
GLP	Universitätsklinikum, Leipzig	No delegate appointed
GMB	Klinikum Otto-von-Guericke Universität, Magdeburg	Dr. J. Arend
GML	Klinikum der Universität, München	No delegate appointed
GMN	Universitätsklinikum, Münster	PD Dr. M. Praktijnjo
GMN	Universitätsklinikum, Münster	Dr. med. F. Rennebaum
GMZ	Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz	Univ. Prof. Dr. Med. M. Koch
GRB	Universitätsklinikum, Regensburg	Prof. Dr. M. Scherer
GRB	Universitätsklinikum, Regensburg	Prof. Dr. S. Brunner
GRO	Universitätsklinikum, Rostock	No delegate appointed
GTU	Universitätsklinikum, Tübingen	Prof. Dr. S. Nadalin
GTU	Universitätsklinikum, Tübingen	Prof. Dr. A. Königsrainer
GWZ	Universitätsklinikum, Würzburg	No delegate appointed
GTU	Universitätsklinikum, Tübingen	Prof. Dr. A. Königsrainer
GWZ	Universitätsklinikum, Würzburg	No delegate appointed

### Hungary

HBS	Semmelweis Medical University, Budapest	No delegate appointed
-----	---	-----------------------

### Netherlands

NGR	Universitair Medisch Centrum, Groningen	Dr. H. Blokzijl
NGR	Universitair Medisch Centrum, Groningen	Dr. A.P. van den Berg
NLB	Leids Universitair Medisch Centrum, Leiden	Dr. M. Coenraad
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. W.G. Polak
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. C.M. den Hoed

### Slovenia

SLO	University Medical Center, Ljubljana	No delegate appointed
-----	--------------------------------------	-----------------------



## Pancreas (Islets) programs

<b>Austria</b>		<i>Delegates</i>
AGA	Medizinische Universität, Graz	Prof. Dr. H. Müller
AIB	Tirol Kliniken GmbH, Innsbruck	PD Dr. C. Margreiter
AIB	Tirol Kliniken GmbH, Innsbruck	OA Dr. S. Scheidl
AWG	Allgemeines Krankenhaus der Stadt Wien	No delegate appointed
<b>Belgium</b>		
BAN	Universitair Ziekenhuis Antwerpen	No delegate appointed
BBJ	Universitair Ziekenhuis Brussel	No delegate appointed
BBP	JDRF Center for Beta Cell Therapy, Brussel	Prof. Dr. D. Jacobs - Tulleneers Thevissen
BBR	Université Libre de Bruxelles, Hôpital Erasme, Bruxelles	No delegate appointed
BGE	Universitair Ziekenhuis, Gent	Prof. Dr. C. Randon
BLA	A Cliniques Universitaires St. Luc, Bruxelles	No delegate appointed
BLG	Centre Hospitalier Universitaire, Liège	Dr. N. Meurisse
BLM	Universitair Ziekenhuis Gasthuisberg, Leuven	Prof. Dr. P. Gillard
<b>Croatia</b>		
CZM	Clinical Hospital Merkur, Zagreb	No delegate appointed
<b>Germany</b>		
GBB	Universitätsklinikum Knappschafts Krankenhaus, Bochum	No delegate appointed
GBC	Charité-Campus Virchow Klinikum, Berlin	PD Dr. A. Kahl
GBO	Universitätsklinikum Bonn	No delegate appointed
GDR	Universitätsklinikum Carl Gustav Carus, Dresden	No delegate appointed
GES	Universitätsklinikum, Essen	Prof. dr. med. J. Treckmann
GFM	Universitätsklinikum, Frankfurt	Dr. M. Heise
GFR	Universitätsklinikum, Freiburg	Dr. med. B. Jänigen
GHB	Universitätsklinikum, Heidelberg	No delegate appointed
GHO	Klinikum der Medizinischen Hochschule, Hannover	No delegate appointed
GJE	Universitätsklinikum, Jena	No delegate appointed
GKI	Universitätsklinikum Schleswig-Holstein, Kiel	No delegate appointed
GKL	Klinikum der Universität, Köln	Prof. Dr. D. Stippel
GKM	Kliniken der Stadt Köln - Krankenhaus Merheim	Dr. M. Ströhlein
GKS	Westpfalz-Klinikum, Kaiserslautern	No delegate appointed

GKS	Westpfalz-Klinikum, Kaiserslautern	No delegate appointed
GLP	Universitätsklinikum, Leipzig	No delegate appointed
GLU	Universitätskliniken Schleswig-Holstein Campus Lübeck	No delegate appointed
GMH	Klinikum rechts der Isar, München	Dr. V. Aßfalg
GML	Klinikum der Universität, München	Prof. Dr. J. Andrassy
GMN	Universitätsklinikum, Münster	Dr. R. Gellner
GMR	Universitätsklinikum Gießen und Marburg, Marburg	Prof. Dr. J. Hoyer
GMZ	Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz	No delegate appointed
GNB	Universitätsklinikum Erlangen, Erlangen	Dr. K. Heller
GRO	Universitätsklinikum, Rostock	No delegate appointed
GTU	Universitätsklinikum, Tübingen	No delegate appointed
GWZ	Universitätsklinikum, Würzburg	No delegate appointed

### Hungary

HBS	Semmelweis Medical University, Budapest	Dr. L. Piros
HPC	Medical Faculty of the University, Pecs	No delegate appointed

### Netherlands

NGR	Academisch Ziekenhuis, Groningen	No delegate appointed
NLB	Leids Universitair Medisch Centrum, Leiden	Dr. A. de Vries
NLB	Leids Universitair Medisch Centrum, Leiden	Prof. Dr. I.P.J. Alwayn



## Lung programs

Austria		Delegates
AIB	Chirurgische Universitätsklinik, Innsbruck	No delegate appointed
AWG	Allgemeines Krankenhaus der Stadt Wien	Dr. med. T. Schweiger
AWG	Allgemeines Krankenhaus der Stadt Wien	Dr. K. Hötzenecker
Belgium		
BAN	Universitair Ziekenhuis Antwerpen, Edegem	Prof. Dr. J.M. Kwakkel-van Erp
BBR	BR Université Libre de Bruxelles, Hôpital Erasme, Brussels	No delegate appointed
BLA	Cliniques Universitaires St. Luc, Brussels	Prof. Dr. P. Evrard
BLM	Universitair Ziekenhuis Gasthuisberg, Leuven	Mr. L. Ceulemans
BLM	Universitair Ziekenhuis Gasthuisberg, Leuven	Prof. Dr. R. Vos
Germany		
GBA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	Dr. A. Renner
GBD	Deutsches Herzzentrum, Berlin	Prof. Dr. C. Knosalla
GBD	Deutsches Herzzentrum, Berlin	Dr. F. Schönrath
GES	Universitätsklinikum, Essen	PD Dr. A. Koch
GES	Universitätsklinikum, Essen	Dr. N. Pizanis
GFR	Universitätsklinikum, Freiburg	Prof. Dr. med. W. Jungraithmayr
GFR	Universitätsklinikum, Freiburg	Dr. D. Schibilsky
GGI	Universitätsklinikum Gießen und Marburg, Gießen	PD Dr. med. M. Hecker
GHG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	No delegate appointed
GHO	Klinikum der Medizinischen Hochschule, Hannover	Dr. F. Ius
GHO	Klinikum der Medizinischen Hochschule, Hannover	Dr. J. Salman
GHS	Universitätsklinikum des Saarlandes, Homburg/Saar	PD Dr. F. Langer
GJE	Universitätsklinikum, Jena	OA Dr. T. Sandhaus
GML	L Klinikum der Universität, München	PD Dr. med. N. Kneidinger

Hungary		
HBS	Semmelweis Medical University, Budapest	No delegate appointed
Netherlands		
NGR	Academisch Ziekenhuis, Groningen	Dr. M.E. Erasmus
NGR	Academisch Ziekenhuis, Groningen	Dr. E.A.M. Verschuuren
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. J.A. Bekkers
NUT	Universitair Medisch Centrum, Utrecht	Dr. N.P. van der Kaaij
NUT	Universitair Medisch Centrum, Utrecht	Dr. H.D. Luijk
Slovenia		
SLO	University Medical Center, Ljubljana	Prof. Dr. M. Harlander
SLO	University Medical Center, Ljubljana	Prof. Dr. T. Stupnik



## Heart programs

Austria		Delegates
AIB	Chirurgische Universitätsklinik, Innsbruck	Dr. J. Dumfarth
AWG	Universitätsklinik für Chirurgie, Wien	Prof. Dr. A. Zuckermann
Belgium		
BAN	Universitair Ziekenhuis Antwerpen, Edegem	Prof. Dr. I. Rodrigus
BAS	Onze Lieve Vrouw Ziekenhuis, Aalst	No delegate appointed
BBR	Université Libre de Bruxelles, Hôpital Erasme, Brussels	No delegate appointed
BGE	Universitair Ziekenhuis, Gent	No delegate appointed
BLA	Cliniques Universitaires St. Luc, Brussels	No delegate appointed
BLG	Centre Hospitalier Universitaire, Liège	No delegate appointed
BLM	Universitair Ziekenhuis Gasthuisberg, Leuven	No delegate appointed
Croatia		
CZA	University Clinical Hospital, Zagreb	No delegate appointed
CZD	Clinical Hospital Dubrava, Zagreb	Dr. D. Baric
Germany		
GBA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	Dr. A. Costard - Jäckle
GBA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	Prof. Dr. med. R.S. Schramm
GBD	Deutsches Herzzentrum der Charité, Berlin	Prof. Dr. C. Knosalla
GBD	Deutsches Herzzentrum der Charité, Berlin	Dr. F. Schönrrath
GBH	Kerckhoff Klinik, Bad Nauheim	Dr. med. M. Zeriouh
GDR	Universitätsklinikum Carl Gustav Carus, Dresden	No delegate appointed
GDU	Universitätsklinikum, Düsseldorf	Prof. Dr. U. Boeken
GFR	Universitätsklinikum, Freiburg	Dr. M. Berchtold-Herz
GGI	Universitätsklinikum Gießen und Marburg, Gießen	Dr. J. Thul
GGO	Klinikum der Universität, HLA Labor, Göttingen	No delegate appointed
GHB	Universitätsklinikum, Heidelberg	Prof. Dr. G. Warnecke
GHB	Universitätsklinikum, Heidelberg	Dr. med. W. Sommer
GHG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	Dr. med. Y. Al Assar
GHG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	Dr. A. Bernhardt
GHO	Klinikum der Medizinischen Hochschule, Hannover	Dr. F. Ius
GHS	Universität des Saarlandes	No delegate appointed

GJE	Universitätsklinikum, Jena	OA Dr. T. Sandhaus
GKI	Universitätsklinikum Schleswig-Holstein, Kiel	No delegate appointed
GKL	Uniklinik Köln-Lindenthal, Köln	No delegate appointed
GLP	Universitätsklinikum, Leipzig	Dr. med. D. Saeed
GLP	Universitätsklinikum, Leipzig	Dr. med. U. Schulz
GML	Klinikum der Universität, München	No delegate appointed
GNB	Transplantationszentrum Nürnberg - Erlangen am Universitätsklinikum Erlangen	Dr. R. Tandler
GRB	Universitätsklinikum, Regensburg	PD Dr. S.W. Hirt
GNB	Transplantationszentrum Nürnberg - Erlangen am Universitätsklinikum Erlangen	Dr. R. Tandler
GRB	Universitätsklinikum, Regensburg	PD Dr. S.W. Hirt

### Hungary

HBG	Gottesege György National Cardiology Institute, Budapest	No delegate appointed
HBS	Semmelweis Medical University, Budapest	Mrs. Z. Szakál-Tóth

### Netherlands

NGR	Academisch Ziekenhuis, Groningen	Dr. K. Damman
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. Y.J.H.J. Taverne
NRD	Erasmus Medisch Centrum, Rotterdam	Dr. O. Manintveld
NUT	Universitair Medisch Centrum, Utrecht	Dr. M. Oerlemans

### Slovenia

SLO	University Medical Center, Ljubljana	No delegate appointed
-----	--------------------------------------	-----------------------

Tissue Typing

Austria		Delegates
AGA	Universitätsklinik, Abteilung für Transfusionsmedizin und Immunohämatologie, Graz	No delegate appointed
AIB	Universitätsklinik, HLA Labor, Innsbruck	Dr. A. Vales
AOL	Allgemeines Krankenhaus, Blutzentrale, Linz	No delegate appointed
AWG	Institut für Blutgruppenserologie, Wien	No delegate appointed
Belgium		
BBJ	Universitair Ziekenhuis Brussel, Bloedtransfusiecentrum Jette	Dr. S. Verheyden
BBR	Université Libre de Bruxelles, Hôpital Erasme, Bruxelles	Dr. V. Holovska
BLA	Cliniques Université de Louvain, Tissue typing laboratory, Bruxelles	Mr. Th. Gervais
BLG	Laboratoire des Groupes Sanguins, Liège	Dr. A. Gothot
BME	Rode Kruis Vlaanderen, Laboratory for Histocompatibility & Immunogenetics (HILA), Mechelen	Dr. J. Beert
Croatia		
CRI	Clinical Hospital Center, Tissue Typing Laboratory, Rijeka	No delegate appointed
CZA	University Clinical Hospital, Zagreb	No delegate appointed
Germany		
GBC	Charité–Campus Virchow Klinikum, Institut für Transfusionsmedizin, Berlin	Dr. N. Lachmann
GDR	DRK Blutspendedienst Nord Ost, Dresden	Dr. C. Opitz
GDU	Institut für Transplantationsdiagnostik und Zelltherapeutika, Düsseldorf	Dr. J. Rox
GER	Institut für Klinische Immunologie, Erlangen	No delegate appointed
GES	Universitätsklinikum, Institut für Immunologie, Essen	Dr. F. Heinemann
GFM	Immunohaematologie, Blutspendedienst Hessen, Frankfurt	No delegate appointed
GFR	Blutspendedienst, Labor für Gewebetypisierung, Freiburg	No delegate appointed
GGI	Institut für Klinische Immunologie und Transfusionsmedizin, Gießen	Dr. med. S. Wienzek-Lischka
GGO	Klinikum der Universität, HLA Labor, Göttingen	No delegate appointed
GHA	Institut für Pathologische Biochemie, Interdisziplinäres Typisierungslabor, Halle	No delegate appointed
GHB	Institut für Immunologie und Serologie, Heidelberg	Dr. S. Scherer
GHG	Universitäts-Krankenhaus Eppendorf, HLA Labor, Hamburg	Dr. V. Ditt
GHO	Klinikum der Medizinischen Hochschule, Immunohaematologie/Blutbank, Hannover	Dr. M. Hallensleben
GKM	Institut für Transfusionsmedizin, Köln-Merheim	Dr. A. von Borstel
GKS	Institut für Rechtsmedizin, Transplantationsimmunologie, Kaiserslautern	No delegate appointed
GLP	Klinikum der Universität, Institut für Transfusionsmedizin, Leipzig	Dr. C. Lehmann

GLU	Institut für Immunologie und Transfusionsmedizin, Lübeck	PD Dr. med. M. Ziemann
GML	Kinderklinik der Ludwig-Maximilians-Universität, HLA Labor, München	Dr. T. Kauke
GMN	Universitätsklinikum, Institut für Transfusionsmedizin, Münster	No delegate appointed
GMZ	Universitätsmedizin der Johannes-Gutenberg-Universität, HLA Labor, Mainz	No delegate appointed
GRO	Klinikum der Universität, Abteilung für Transfusionsmedizin, HLA Labor, Rostock	No delegate appointed
GST	Klinikum Stuttgart, Zentralinstitut für Transfusionsmedizin und Blutspendedienst	Dr. A. Ender
GTU	Klinikum der Eberhard-Karls-Universität, Abt. für Transfusionswesen und Blutbank, Tübingen	No delegate appointed

Hungary		
HBU	Hungarian National Blood Transfusion Service	No delegate appointed

Netherlands		
NAM	Centraal Laboratorium Bloedtransfusiedienst, Nederlandse Rode Kruis, Amsterdam	Dr. N.M. Lardy
NGR	Laboratorium voor transplantatie-immunologie, Groningen	Dr. B.G. Hepkema
NLB	Leiden University Medical Centre, Immunohaematologie, Leiden	Dr. D.L. Roelen
NMS	Academisch Ziekenhuis, Laboratorium voor weefseltypering, Maastricht	Dr. L. Wieten
NNY	Academisch Ziekenhuis St. Radboud, Bloedtransfusiedienst, Nijmegen	Dr. A. van der Meer
NUT	Academisch Ziekenhuis, Bloedbank, Utrecht	Dr. E. Spierings

Slovenia		
SLO	Tissue Typing Centre, Blood Transfusion Centre, Ljubljana	Dr. B. Vidan-Jeras





# 7 Scientific output





# Scientific Output

The names of authors who work at Eurotransplant central office or at the Eurotransplant Reference Laboratory are indicated in *Italic font*.

## Invited Lectures

### 1 Historique et fonctionnement d'Eurotransplant

*J. Smits*

Formation coordinateur local de dons d'organes et de tissus, online (Brussel), January 24, 2022

### 2 Online masterclass on organ donation and transplantation - Train the trainers

Round table: Transnational transplant networks organizations and experiences

*S. Vogelaar*

Webinar EU project TEODOR via TPM-DTI Foundation, online, February 25, 2022

### 3 Organallokation

*S. Vogelaar*

Intensivkurs Transplantationsmedizin - Westdeutsches Zentrum für Organtransplantation (WZO) Universitätsmedizin Essen, online, March 21, 2022

### 4 Organallokation als internationale Aufgabe

*S. Vogelaar*

DSO -Region Baden-Württemberg – Grundkurs / Curriculum für Transplantationsbeauftragte, online, March 28, 2022

### 5 Organallokation als internationale Aufgabe

*S. Vogelaar*

ANÖ Frühjahrstagung 2022, Bad Blumau, Austria, April 29, 2022

### 6 Aufgabe der Vermittlungsstelle (Eurotransplant) - Organallokation

*S. Vogelaar*

28. Walter-Brendel-Kolleg, Harnack-Haus in Berlin, Germany, May 14, 2022

### 7 Allokation - werden Organen gerecht verteilt?

*S. Vogelaar*

Seminar „Transplantationsbeauftragter Arzt“ der Bayerische Landesärztekammer in Kooperation mit der DSO, online, May 16, 2022

### 8 Sharing Office and Allocation Criteria

*S. Vogelaar*

27th Transplant Procurement Management Advanced International Training Course by DTI Foundation, online, May 20, 2022

### 9 Eurotransplant – Organallokation als internationale Aufgabe

*S. Vogelaar*

Curriculum für Transplantationsbeauftragte – Grundkurs der Landesärztekammer Baden-Württemberg in Kooperation mit der DSO, Starzach Germany, July 13, 2022

### 10 Donor with medical history of Cancer

*M. De Rosner - van Rosmalen*

Presentation during the Workshop Session "Prevention and management of donor-transmitted cancer after SOT" of the 29th International Congress of The Transplantation Society (TTS 2022), Buenos Aires, Argentina, September 14, 2022

### 11 Eurotransplant, International Organ Allocation

*S. Vogelaar*

Webinar DTI, online, October 6, 2022

### 12 Eurotransplant – Organallokation als internationale Aufgabe

*S. Vogelaar*

Symposium für Intensivpflegekräfte Stuttgart, Germany, October 10, 2022

### 13 Eurotransplant-Verbund, Organallokation als internationale Aufgabe

*S. Vogelaar*

Curriculum für Transplantationsbeauftragte DSO Region Ost, Jena, Germany, October 11, 2022

### 14 Allokation und Zusammenarbeit mit ET

*S. Vogelaar*

TX Koordinatorenschulung, Austrotransplant Kongress, Mayerhofen, Austria, October 19, 2022

## 15 Organverteilung – Vermittlungsstelle Eurotransplant

*S. Vogelaar*

Ärztekammer Berlin, Berlin, Germany, October 24, 2022

## 16 Eurotransplant, international organ allocation since 1967

*S. Vogelaar*

The International Conference for Initiatives on Organ and Tissue Donation and Transplantation, DTI, online, November 9, 2022

## 17 Organ Procurement

*S. Vogelaar*

Live session DTI, online, November 23, 2022

## Publications – Articles

### 1 Prevention and Management of Donor-transmitted Cancer After Liver Transplantation: Guidelines From the ILTS-SETH Consensus Conference

Domínguez-Gil B, Moench K, Watson C, Serrano MT, Hibi T, Asencio JM, *Van Rosmalen M*, Detry O, Heimbach J, Durand F.

*Transplantation*. 2022 Jan 1;106(1):e12-e29. doi: 10.1097/TP.0000000000003995.

### 2 Kidney Transplantation Outcome Predictions (KTOP): A RiskPrediction Tool for Kidney Transplants from Brain-dead DeceasedDonors Based on a Large European Cohort

Miller G, Ankerst DP, Kattan MW, Hüser N, *Vogelaar S*, *Tieken I*, Heemann U, Assfalg V.

*Eur Urol*. 2022 Jan 6:S0302-2838(21)02216-8. doi: 10.1016/j.eururo.2021.12.008. Epub ahead of print. PMID: 35000822.

### 3 Waitlist mortality of young patients with biliary atresia: Impact of allocation policy and living donor liver transplantation.

Esmati H, *van Rosmalen M*, van Rheen PF, de Boer MT, van den Berg AP, van der Doef HPJ, Rayar M, de Kleine RHJ, Porte RJ, de Meijer VE, Verkade HJ.

*Liver Transplantation*. June 14, 2022, <https://doi.org/10.1002/lt.26529>. Epub ahead of print. PMID: 35702029

## 4 Gamma-glutamyltransferase is a strong predictor of secondary sclerosing cholangitis after lung transplantation for COVID-19 ARDS

Schwarz S, Lang C, Harlander M, Štupnik T, Slambrouck JV, Ceulemans LJ, Ius F, Gottlieb J, Kuhnert S, Hecker M, Aigner C, Kneidinger N, Verschuuren EA, *Smits JM*, Tschernko E, Schaden E, Faybik P, Markstaller K, Trauner M, Jaksch P, Hoetzenecker K.

*J Heart Lung Transplant*. 2022 Oct;41(10):1501-1510. doi: 10.1016/j.healun.2022.06.020. Epub 2022 Jul 2. PMID: 35907758; PMCID: PMC9249665.

## 5 Impact of sensitization on waiting time prior to kidney transplantation in Germany

Zecher D, Zeman F, Drasch T, *Tieken I*, Heidt S, Haasnoot GW, Vogelaar S, Rahmel A, Banas B.

*Transplantation*. 2022 Dec 1;106(12):2448-2455. doi: 10.1097/TP.0000000000004238. Epub 2022 Aug 2. PMID: 35973058.

## 6 Impact of diastolic pulmonary gradient and pulmonary artery pulse index on outcomes in heart transplant patients-Results from the Eurotransplant database.

Wagner T, Magnussen C, Bernhardt A, *Smits JM*, Steinbach K, Reichensperner H, Kirchhof P, Grahn H.

*Front Cardiovasc Med*. 2022 Dec 16; 9:1036547. doi: 10.3389/fcvm.2022.1036547. PMID: 36588552; PMCID: PMC9800977.



# 8 Eurotransplant personnel related statistics





# Eurotransplant personnel related statistics

## Intake

	Number of new employees	Number of employees (Dec. 31, 2022)	Intake percentage
Regular	12	83	14,5%
Flex	6	29	20,7%
Total	18	111	16,2%

## Outflow

	Exit number	Number of employees (Jan. 1, 2022)	Outflow percentage
Regular	6	75	8,0%
Flex	6	28	21,4%
Total	12	103	11,7%

## Employees per December 31, 2022

	Numbers	FTE
Flex	29	8,40
Part-timer	43	33,80
Full-timer	36	36,00
Full-timer + (>36 hours/week)	3	3,33
Total	111	81,53

## Average FTE's

	GrossFTE	Recharged *	Nett FTE
Personnel in FTE's	79,54	0,57	78,97

\* The FTE's based on the shared services will partially be recharged to the Dutch Transplant Foundation.

## Divison Male/Female

	Male		Female	
	Nr.	%	Nr.	%
Regular	34	41,5%	48	58,5%
Flex	11	37,9%	18	62,1%
Total	45	40,5%	66	59,5%

## Nett Absentee Rates \*

	absenteeism	Rolling absentee frequencies	Average absentee duration
Regular & Flex	3,26%	1,19	9,6

\* Nett absenteeism concerns all absenteeism caused by illness, excluding insured absenteeism.

In case of insured absenteeism, the employer receives sickness benefits for the absenteeism. This involves absenteeism related to pregnancy or maternity, organ donation or with regard to employees who have a prior history of insured absenteeism.

## Gross Absentee Rates \*\*

	absenteeism	Rolling absentee frequencies	Average absentee duration
Regular & Flex	3,48%	1,19	10,3

\*\* Gross absenteeism concerns all absenteeism caused by illness.





# 9 Abbreviated financial statements



# Abbreviated financial statements

Abbreviated financial statements of Stichting Eurotransplant International Foundation, for the year ended December 31, 2022.

For a full understanding of the Foundation's financial position and results, the abbreviated financial statements should be read in conjunction with the financial statements from which the abbreviated financial statements have been derived. These financial statements are available at the Foundation.

The purpose of these abbreviated financial statements is to give insight in equity (reserve funds), solvency, liquidity and the result for the year. The criteria and the aggregation level of the abbreviated financial statements are applied to these.

## Balance sheet

<b>Assets</b>	<b>31.12.2022</b> x € 1.000	<b>31.12.2021</b> x € 1.000
Fixed assets	1.075	1.307
Current assets	4.659	3.644
Cash	2.727	2.567
	<b>8.461</b>	<b>7.518</b>
<b>Liabilities</b>	<b>31.12.2022</b> x € 1.000	<b>31.12.2021</b> x € 1.000
Capital	235	235
Reserves and funds	4.428	3.848
Provisions	117	110
Long term liabilities	801	968
Short term liabilities	2.880	2.356
	<b>8.461</b>	<b>7.518</b>

## Statement of income and charges

<b>Income</b>	<b>2022</b> x € 1.000	<b>2021</b> x € 1.000
Registrations	11.592	11.762
Contribution ENISnext	-820	-1.088
Transport costs	-60	-60
Audit costs	-105	-106
Net registration income	<b>10.607</b>	<b>10.508</b>
Procurement fees	2.866	2.674
Donor typing fees Belgium	113	108
Miscellaneous	567	18
	<b>3.547</b>	<b>2.800</b>
	<b>14.154</b>	<b>13.308</b>

<b>Charges</b>	<b>2022</b> x € 1.000	<b>2021</b> x € 1.000
Salaries and social charges	6.450	5.893
External personnel and other personnel costs	759	694
Procurement charges	2.934	2.847
General expenses	2.248	1.792
Medical expenses	561	521
Housing	388	319
Depreciation	128	150
Donor typing costs Belgium	88	109
Miscellaneous	19	18
	<b>13.574</b>	<b>12.342</b>

## Appropriation of the exploitation balance

Release / Addition General Reserve	609	1.139
Release / Addition Reserve Fund Clearinghouse procurement fees	-30	-172
	<b>580</b>	<b>966</b>

## Accounting policies

### General accounting principles for the preparation of the abbreviated financial statements

The financial statements have been prepared in accordance with Guideline 640 of the Dutch Accounting Guidelines.

Eurotransplant and the health insurers have an agreement about the yearly budget. After two years Eurotransplant will reimburse the health insurers if the number of invoiced registrations is higher and the costs for audits and transport are lower than in the approved budget. On the other hand, health insurers will reimburse Eurotransplant if the number of invoiced registrations is lower and the costs for audits and transport are higher than in the approved budget.

The approved budget for income from registrations and costs for audits and transport is presented in the Statement of Income and Charges. The settlements of the different years are presented in the Balance Sheet.

Valuation of assets and liabilities and determination of the result takes place under the historical cost convention. Unless presented otherwise at the relevant principle for the specific balance sheet item, assets and liabilities are presented at face value.

Income and expenses are accounted for on accrual basis. Profit is only included when realized on the balance sheet date. Losses originating before the end of the financial year are taken into account if they have become known before preparation of the financial statements.

### Financial instruments

Financial instruments be both primary financial instruments, such as receivables and payables, and financial derivatives. For the principles of primary financial instruments, reference is made to the treatment per balance sheet item. The foundation has no financial derivatives.

### Translation of foreign currency

Receivables, liabilities and obligations denominated in foreign currency are translated at the exchange rates prevailing at balance sheet date. Transactions in foreign currency during the financial year are recognized in the financial statements at the exchange rates prevailing at transaction date. The exchange differences resulting from the translation as of balance sheet date, taking into account possible hedge transactions, are recorded in the statement of income and charges.

### Comparative figures

Prior year figures have been reclassified for comparison purposes if needed. These minor adjustments have no impact on equity or the net exploitation balance.

### Going concern

The going concern assumption is applied in the preparation of the financial statements for the year ended 31 December 2022.

### Principles of valuation of assets and liabilities

#### Tangible fixed assets

Tangible fixed assets are presented at cost less accumulated depreciation and, if applicable, less impairments in value. Depreciation is based on the estimated useful life and calculated as a fixed percentage of cost, taking into account any residual value. Depreciation is provided from the date an asset comes into use.

#### Current assets

Upon initial recognition the current assets are valued at fair value and then valued at amortised cost. Provisions deemed necessary for possible bad debt losses are deducted. These provisions are determined by individual assessment of the current assets.

#### Cash

The cash is valued at face value. If cash is not freely disposable, then this has been taken into account upon valuation.

#### Reserve Funds

Reserve Funds are formed for future expenditures which should be covered out of the available assets. The Reserve Funds classified as 'reserves' can be considered as reserves as set out in Dutch Accounting Guideline 640 ('bestemmingsreserves') whereas the setting of the objective of each Reserve Fund is determined by the Board of Management. The Reserve Funds classified as 'funds' can be considered as funds as set out in Dutch Accounting Guideline 640 ('bestemmingsfondsen') whereas the setting of the objective of each Reserve Fund is determined by third parties.

**Provisions**

The provision for jubilee is based on the expected costs for a series of years. Payments for a jubilee are deducted from the provision.

**Provision for employee benefits**

The pension plan according to the Collective Labour Agreement for General Hospitals is financed through contributions to an industry pension fund (the pension provider PFZW). The pension obligations of this plan are valued according to the 'valuation to pension fund approach'. This approach accounts for the contribution payable to the pension provider as an expense in the statement of income and charges.

Based on the administration agreement it is assessed whether and, if so, which obligations exist in addition to the payment of the annual contribution due to the pension provider as at balance sheet date. These additional obligations, including any obligations from recovery plans of the pension provider, lead to expenses for the foundation and are included in a provision on the balance sheet. Additions to and release of the obligations are recognised in the statement of income and charges.

A pension receivable is included in the balance sheet when the group has the right of disposal over the pension receivable and it is probable that the future economic benefits which the pension receivable holds will accrue to the group, and the pension receivable can be reliably established.

As at year-end 2022 (and 2021) no pension receivables and no obligations existed for the foundation in addition to the payment of the annual contribution due to the pension provider. Information regarding the recovery plan of the

pension provider (PFZW) are further elaborated on their website.

**Long-term rehousing accrual**

The long-term rehousing accrual is an investment grant. Investment grants relating to the acquisition of tangible fixed assets are treated as deferred income and released to the profit and loss account over the expected useful lives of the assets concerned.

**Short-term liabilities**

Upon initial recognition, the loans and liabilities recorded are stated at fair value and then valued at amortised cost.

**Lease**

Leases that do not classify as finance lease, classify as operating lease. For operating leases, lease payments are recognised as an expense on a straight-line basis over the lease term.

**Principles for the determination of the result****Registration fees**

Registration fees are based on the approved budget.

**Explantation charges and explantation costs (including donortyping)**

Explantation charges and explantation costs (including donortyping) are matched and both recognised on the date the transplantation occurred.

**Operating grants**

Operating grants relate to subsidised expenses and are included in the statement of income and charges in the year in which the subsidised costs are recognised as expenses. Operating grants are recognised in the profit

and loss account when there is reasonable assurance the grant conditions are fulfilled and the grant will actually be obtained.

**Charges**

The general expenses of Stichting Eurotransplant International are stated on the basis of transaction costs.

Certain general expenses of the Nederlandse Transplantatie Stichting and Stichting Eurotransplant International Foundation are made for common account. Such costs are divided between the two foundations on the basis of activity-levels.

Gains from disposal of tangible fixed assets  
Gains resulting from the disposal of tangible fixed assets are accounted for when all major entitlements to economic benefits as well as all major risks have transferred to the buyer.

**Exploitation Balance**

The exploitation balance is defined as the difference between income and charges, based on the above mentioned policies.



# Independent auditor's report

To: The Board of Management and Supervisory Board of Stichting Eurotransplant International Foundation.

## Our opinion

The accompanying abbreviated financial statements 2022 of Stichting Eurotransplant International Foundation, based in Leiden is derived from the audited financial statements 2022 of Stichting Eurotransplant International Foundation.

In our opinion the accompanying abbreviated financial statements are consistent, in all material respects, with audited financial statements 2022 of Stichting Eurotransplant International Foundation, on the bases described in the notes to the abbreviated financial statements.

The accompanying abbreviated financial statements 2022 comprise:

1. the abbreviated balance sheet as at 31 December 2022;
2. the abbreviated statement of income and charges over 2022; and
3. the notes on the abbreviated financial statements

## Abbreviated financial statements

The abbreviated financial statements do not contain all the disclosures required by Guideline for annual reporting 640 "Not-for-profit organisations" of the Dutch Accounting Standards Board. Reading the abbreviated financial statements and our report thereon, therefore, is not a substitute for reading the audited financial statements of Stichting Eurotransplant International Foundation and our auditor's report thereon.

## The audited financial statements and our auditor's report thereon

We expressed an unmodified audit opinion on the audited financial statements 2022 of Stichting Eurotransplant International Foundation in our auditor's report of June 12, 2023.

## Responsibilities of the Board of Management and the Supervisory Board

The Board of Management is responsible for the preparation of the abbreviated financial statements 2022 in accordance with the accounting policies as applied in the audited financial statements 2022 of Stichting Eurotransplant International FoundationError! Reference source not found., on the bases described in the notes to the abbreviated financial statements.

The supervisory board is responsible for overseeing the foundation's financial reporting process.

## Our responsibilities

Our responsibility is to express an opinion on whether the abbreviated financial statements 2022, are consistent, in all material respects, with the audited financial statements based on our procedures, which were conducted in accordance with Dutch Law, including the Dutch Standard on Auditing 810 "Engagements to report on summary financial statements".

Zwolle, 12 June 2023

**TIC Assurance B.V.**

Signed on the original: A.L. van Dijk MSc RA



# List of abbreviations

<b>AC</b>	Advisory Committee	<b>FC</b>	Financial Committee	<b>RB</b>	Review Board
<b>ACO</b>	Approved Combined Organ	<b>FTE</b>	Full Time Equivalent	<b>SAE/R</b>	Serious Adverse Event/Reaction
<b>AM</b>	Acceptable Mismatch	<b>GDPR</b>	General Data Protection Regulation	<b>SE</b>	Standard Exception
<b>CDC</b>	Complement Dependent Cytotoxicity	<b>HLA</b>	Human Leucocyte Antigen	<b>SOP</b>	Standard Operation Procedure
<b>CRM</b>	Client Relation Management	<b>HR</b>	Human Resources	<b>SPA-SA</b>	Solid Phase Assays Single Antigen
<b>DCD</b>	Donation after Circulatory Death	<b>HU</b>	High Urgent	<b>SRAC</b>	Scientific Registry Advisory Committee
<b>DPA</b>	Donation Procedure Application	<b>IPTR</b>	International Pancreas Transplant Registry	<b>SRWG</b>	Scientific Registry Working Group
<b>DPIA</b>	Data Protection Impact Assessment	<b>ISHLT</b>	International Society for Heart & Lung Transplantation	<b>SU</b>	Special Urgency
<b>DSO</b>	Deutsche Stiftung Organtransplantation	<b>ISMS</b>	Information Security Management System	<b>TTA</b>	Teaching and Training Agreement
<b>DWH</b>	Data Warehouse	<b>ISO</b>	International Organization for Standardization	<b>TTAC</b>	Tissue Typing Advisory Committee
<b>EAS</b>	ET Audit System	<b>ISWG</b>	Information Services Working Group	<b>TTC</b>	Tissue Typing Centers
<b>EFI</b>	European Federation for Immunogenetics	<b>IQTIG</b>	Institut für Qualität und Transparenz im Gesundheitswesen		
<b>ELIAC</b>	ET Liver Intestine Advisory Committee	<b>IT</b>	Information Technology		
<b>ELTR</b>	European Liver Transplant Registry	<b>LAS</b>	Lung Allocation Score		
<b>ENIS</b>	ET Network Information System	<b>MARS</b>	Molecular Adsorbents Recirculation System		
<b>EPAC</b>	ET Pancreas Advisory Committee	<b>MELD</b>	Model for End stage Liver Disease		
<b>EPAS</b>	ET Pancreas Allocation System	<b>MT</b>	Management Team		
<b>EPT</b>	External Proficiency Testing	<b>NDTR</b>	National German Transplant Registry		
<b>ERAC</b>	ET Registry Advisory Committee	<b>NHSBT</b>	National Blood and Health Services		
<b>ERA-EDTA</b>	European Renal Association - European Dialysis and Transplant Association	<b>NT</b>	Not Transplantable		
<b>ESC</b>	European Society of Cardiology	<b>NTS</b>	Nederlandse Transplantatie Stichting (Dutch Transplant Foundation)		
<b>ESDP</b>	ET Senior DR-matching Program ET Eurotransplant	<b>OEA</b>	Organ Exchange Agreement		
<b>ETEC</b>	ET Ethics Committee	<b>OEO</b>	Organ Exchange Organization		
<b>EthAC</b>	ET Thoracic Advisory Committee	<b>OPCC</b>	Organ Procurement Chain Committee		
<b>ETIAM</b>	ET Identity and Access Management	<b>PDCA cycle</b>			
<b>ETKAC</b>	ET Kidney Advisory Committee	<b>PFT</b>	Pulmonary Function Test		
<b>ETKAS</b>	ET Kidney Allocation System	<b>PRA</b>	Panel Reactive Antibodies		
<b>ETRL</b>	ET Reference Laboratory	<b>QMS</b>	Quality Management System		
<b>ET-TC</b>	ET Transplant Center				
<b>EU</b>	European Union				



# Colofon

**Eurotransplant International Foundation**

P.O. Box 2304  
2301 CH Leiden  
The Netherlands

Tel. +31-71-579 58 00

Fax. +31-71-597 00 57

[www.eurotransplant.org](http://www.eurotransplant.org)

[twitter.com/eurotransplant](https://twitter.com/eurotransplant)

[linkedin.com/company/eurotransplant](https://linkedin.com/company/eurotransplant)

*All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying or otherwise, without prior permission of Eurotransplant. For permissions, please contact:*  
[communication@eurotransplant.org](mailto:communication@eurotransplant.org)

**Design and production**

Studio Eric Dietz BNO