#### Disclaimer:

"The content of this Deliverable D2.1 represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains."

# D2.1 Report on 2020 unrelated hematopoietic stem cell transplants

**Grant Agreement number:** 101015514 **Project acronym:** SAVDON

Work Package number: WP1

Periodic report: 1st  $\square$  2<sup>nd</sup>  $\square$  3<sup>rd</sup> X 4<sup>th</sup>  $\square$ 

Period covered: from 01st January to 31st December 2021

Organisation: World Marrow Donor Association (WMDA)

Lydia Foeken

Project coordinator:

Lydia Foeken

**Tel:** 0031 88 505 7900

E-mail: lydia.foeken@wmda.info

Organisation website address: www.wmda.info



Co-funded by the Health Programme of the European Union

#### Disclaimer:

"The content of this Deliverable D2.1 represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains."

# Table of Contents

D2.1 REPORT ON 2020 UNRELATED HEMATOPOIETIC STEM CELL TRANSPLANTS	0
TABLE OF CONTENTS	1
ABBREVIATIONS	2
INTRODUCTION	3
WMDA GLOBAL TRENDS REPORT	5
WMDA SEARCH & MATCH SERVICE	5
GLOBAL DEVELOPMENT	6
EUROPEAN DEVELOPMENT	9
EU DEVELOPMENT	11
EU MEMBER STATES	12
Total	12
AUSTRIA	14
BELGIUM	15
Bulgaria	16
CROATIA	17
CYPRUS	18
CZECHIA	19
DENMARK	20
FINLAND	21
FRANCE	22
GERMANY	23
GREECE	24
HUNGARY	25
IRELAND	26
ITALY	27
LITHUANIA	28

LUXEMBOURG	29
Netherlands	30
Poland	31
Portugal	32
ROMANIA	33
Slovakia	34
Slovenia	35
Spain	36
Sweden	37
EU CANDIDATE COUNTRIES	38
Total	38
(NORTH) MACEDONIA	40
Serbia	41
EUROPEAN THIRD COUNTRIES	42
Total	42
Norway	44
Russia	45
Switzerland	46
UK	47
REFERENCES	48



# **Abbreviations**

CB = Cord Blood

CBB = Cord Blood Bank

CBU = Cord Blood Unit

DLI = Donor Lymphocyte Infusion

GTR = Global Trends Report

HLA = Human Leukocyte Antigen

HSC = Hematopoietic Stem Cell

HSCT = Hematopoietic Stem Cell Transplantation

WMDA = World Marrow Donor Association



#### Introduction

This Deliverable D2.1 Report on unrelated stem cell donations is part of the 2021 work programme of the WMDA for the EU Third Health Programme (2014-2020) and is based on the data of the WMDA Global Trends Report 2020. It focusses mainly on the export to and the import from EU Member States of hematopoietic stem cell products, including current volumes, patterns and trends as well as information related to quality and safety regulations and operational processes. This report will be used to baseline and track improvements to provide a resource to support hematopoietic stem cell and cord blood organisations in EU member states, EU candidate countries and European third countries.

Since 1997, the World Marrow Donor Association (WMDA) sends out an annual questionnaire to analyse the global trends in unrelated hematopoietic stem cell (HSC) and cord blood (CB) donation. Approximately 95% of all hematopoietic stem cell and cord blood organisations worldwide participate in this prestigious project. Since 2017, WMDA's Search & Match Service statistics are also included in the WMDA Global Trends Report (GTR).



# WMDA Global Trends Report

The WMDA is an international collaborative effort of organisations and professionals involved in HSC donation and transplantation. WMDA's mission is to promote global collaboration and sharing of best practices between its members for the benefit of patients and HSC donors.

One of the annual projects of the WMDA is to collect information on unrelated hematopoietic stem cell products provided by hematopoietic stem cell donor and cord blood organisations worldwide. The WMDA office has been collecting these data since 1997 and is proud to distribute the 24<sup>th</sup> edition of the WMDA Global Trends Report in 2020. A total of 103 organisations from 61 different countries providing HSC products participated in the GTR 2020. The WMDA questionnaire is included in this report as supplemental information. The complete WMDA Global Trends Report 2020 is accessible for WMDA members on our collaborative website<sup>1</sup>. External interested organisations or professionals can request a copy via our email<sup>2</sup>.

HSC donor and CB organisations voluntarily contribute data on the understanding that publications may result. Each organisation is free to use the data for its own internal use, however any use of the data for publication must receive approval of the WMDA Board or its designee.

#### WMDA Search & Match Service

Due to increasing globalisation and changing populations, a global network like WMDA is of great importance to facilitate a HSC donor search beyond country borders.

WMDA Search & Match Service connects almost 40 million unrelated HSC donors and CBUs worldwide and helps over 20 thousands patients receive HSCs from healthy donors every year. As the WMDA's centralised global database continuously grows, due to the combined efforts of its member organisations, more patients in need of hematopoietic stem cell donation can be helped.



# Global development

In 2020, 39 million unrelated volunteer HSC donors were registered, 806 thousand CBUs banked and over 2.2 million unrelated HSC donors and CBUs were recruited and banked. Figure 1 shows the global number of available unrelated HSC donors and CBUs over the years.

From 2008 on the number of available donors follows a more or less linear increase, showing there is still an increase in awareness about HSC donation. This increase is also driven by the increase of number of HSC donor organisations founded in previously unserved regions of the world. Since 2013 the combined inventory growth of CBBs worldwide has levelled off due to cost concerns and the increase use of haploidentical family donors in favour of CBUs.

The number of new recruited HSC donors and newly banked CBUs in 2020 decreased by 28% compared to 2019. Due to the Covid-19 pandemic in 2020 many HSC donor centres were unable to hold face-to-face donor recruitment events and had to move their activities online, which likely caused this decreased inventory growth.

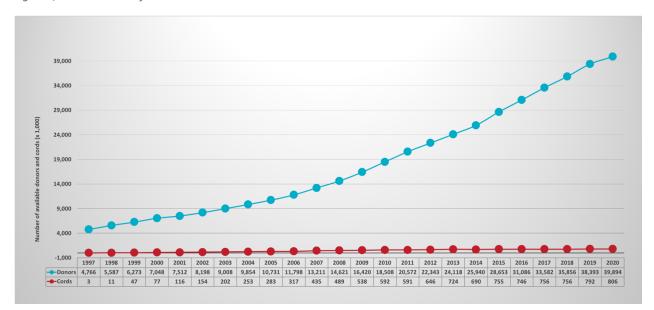


Figure 1, Global number of available unrelated HSC donors and CBU<sup>3</sup>

On a global level, more than 22 thousand HSC products were donated for HSCT in 2020. Figure 2 shows the number and type of HSC products provided over the years. Also here we see a decrease compared to 2019 caused by border closings, unavailability of hospital services, and other difficulties due to the Covid-19 pandemic. The largest decrease (39%) was seen in the use of international marrow HSC donation and while the use of national apheresis HSC increased with 7%.



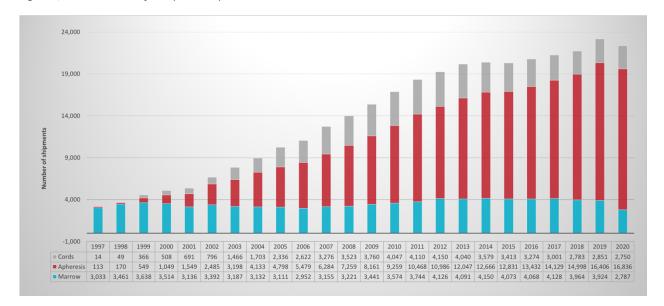


Figure 2, Global number of HSC products provided<sup>3</sup>

Globalisation is causing diversification of ethnicities; patients more often have a mixed ethnic background, or they might live in different a part of the world than where they are originally from. This might be why since 2014 we observe about 50% of all HSC products donated for HSCT are crossing international borders. In light of the Covid-19 pandemic, 2020 is divergent of this trend. Due to lock down situations in various parts of the world, transplant centres were more often forced to choose a national HSC donor. Figure 3 shows the percentage national and international provision of marrow and apheresis HSC donations worldwide.

The use of CBUs do not follow this trend, 81% of CBUs were donated nationally and seemingly was not affected by the Covid-19 pandemic (Figure 4). This is mainly caused by the high rate of nationally used CBUs in Asia.



Figure 3, National and international provision of Marrow and Apheresis HSC products worldwide<sup>3</sup>

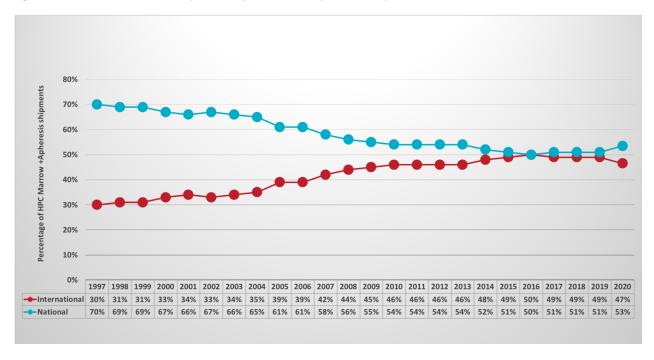
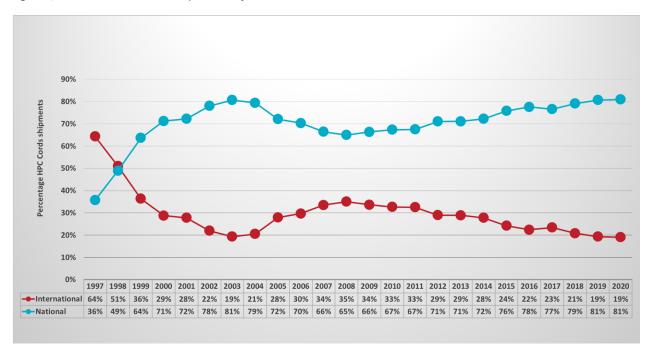


Figure 4, National and international provision of CBUs worldwide<sup>3</sup>



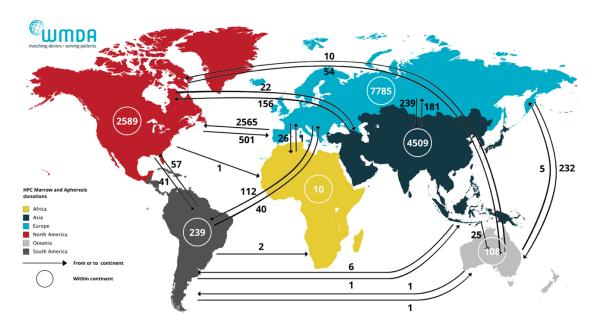


# European development

With over 17 million unrelated HSC donors and CBUs available, Europe's contribution to the global inventory is the largest of all continents with 42%. In 2020, more than 1.1 million donors were recruited and almost 5 thousand CBUs were banked. Compared to 2019 and compared to other continents, Europe's decrease in recruiting new donors and CBUs was the largest as well, with 33%.

However, Europe remains the biggest exporter of HSC donor products as well as having a large internal market. Figure 5 shows the global exchange of Marrow and Apheresis HSC products. The large number of available HSC donors and CBUs in Europe, the concept of free movement between European countries and quality services provided by many European organisations are responsible for this.





Despite not having the largest CBU inventory, European CBBs exported the largest amount of CBUs (Figure 6). However, the internal European market is only third largest after Asia and North America.



Figure 6, Global exchange of CBUs<sup>3</sup>



The effects of the Covid-19 pandemic on the use of HSC donor products and CBUs was different for each continent. Following the global trend, in Europe the largest decrease was seen in the use of (mainly international) marrow HSCs with an increased use of (mainly national) apheresis HPCs. Contrasting with other continents, the use of national CBUs increased significantly with 42%. Figure 7 shows the effects of Covid-19 for all HSC donor and CB products per continent.

Figure 7, Covid-19 effects on the use of HSC product per continent<sup>3</sup>

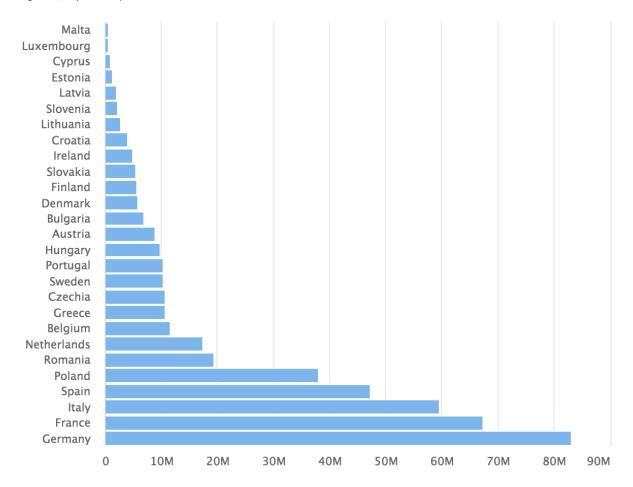




# EU development

In 2020 the EU covered over 4.5 million km<sup>2</sup> and had 447.3 million inhabitants. By surface area, France is the biggest EU country and Malta the smallest. Germany, France and Italy hold the largest populations (Figure 8). In 2020 the EU consist of 27 countries, since the UK left the EU.





Data from Latvia, Estonia and Malta is missing since these countries do not have a HSC donor or CB organisation. Estonia collaborates with Finland to find unrelated HSC donors for their patients and therefore only import HSC products from other countries. Lithuania, Luxembourg, Portugal, Romania, Bulgaria, Denmark, Hungary and Ireland do not have a CBB and therefore only import CBUs from other countries. Germany is the largest supplier of unrelated HSC donor products and Spain is the largest supplier of CBUs.

In 2020, EU Member States exchanged 6.596 HSC products with other EU Member States and 4.956 HSC products globally.

On the following pages we show the report per individual EU member state, EU candidate country and European third country including import and export data of the different HSC products.

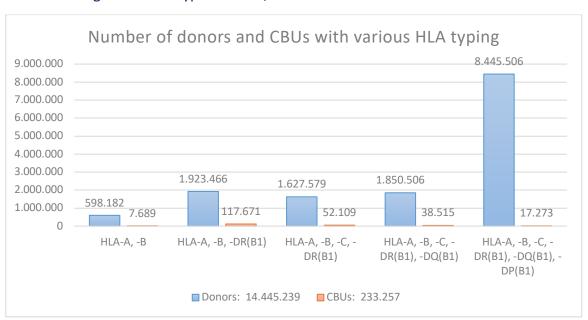


#### EU member states

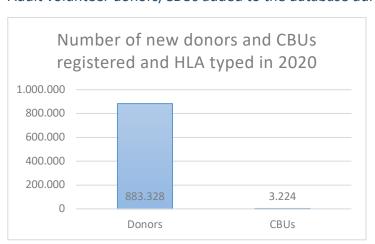
EU member states with active HSC donor and/or CB organisations include Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

Total 443.58 million inhabitants

Number of registered and typed donors/CBUs on 31 December 2020: 14.678.496



Adult volunteer donors/CBUs added to the database during 2020:



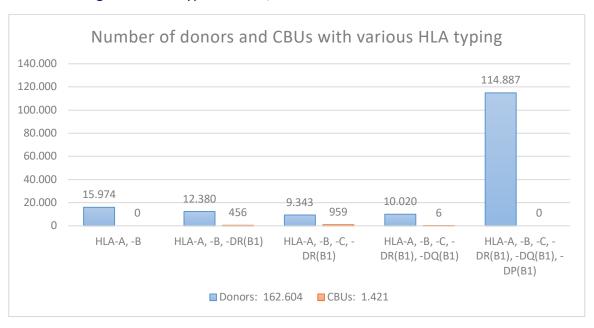


	вм	PBSC	CBU	DLI
National	263	2.704	68	394
Export to EU member states	394	2.931	88	329
Export to third countries	423	3.227	163	239
Import from EU member states	383	2.712	88	329
Import from third countries	102	965	76	102
Import-Export ratio	485:817	3.677:6.158	164:251	431:568
	37% import	37% import	40% import	43% import

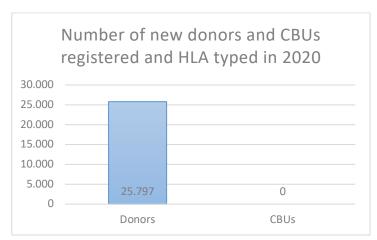


Austria 8.90 million inhabitants

164.025



# Adult volunteer donors/CBUs added to the database during 2020:

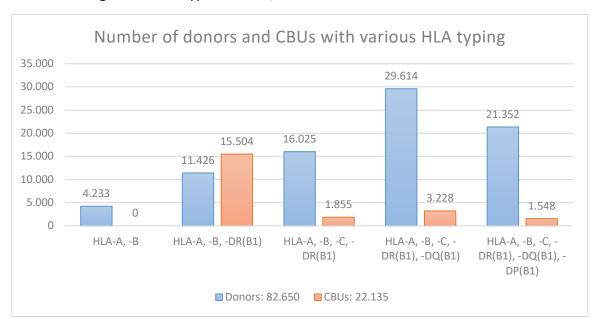


	ВМ	PBSC	CBU	DLI
National	0	7	0	1
Export to EU member states	9	58	0	3
Export to third countries	6	32	0	1
Import from EU member states	14	95	0	10
Import from third countries	1	13	0	1
Import-Export ratio	15:15	108:90	NA	11:4
	50% import	55% import		73% import

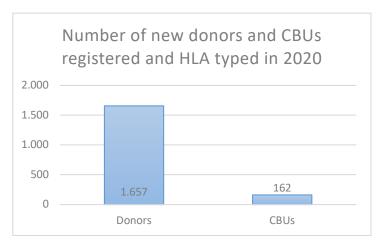


Belgium 11.52 million inhabitants

104.785



#### Adult volunteer donors/CBUs added to the database during 2020:

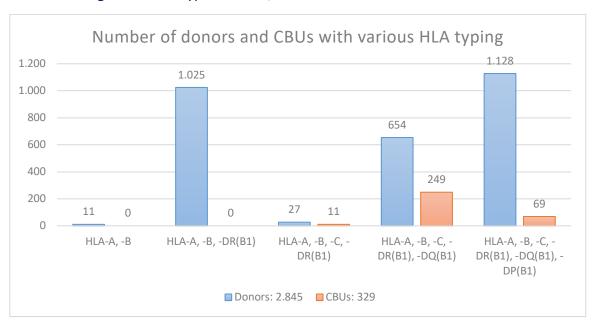


	ВМ	PBSC	CBU	DLI
National	0	9	0	0
Export to EU member states	2	13	3	3
Export to third countries	1	9	10	2
Import from EU member states	10	167	4	23
Import from third countries	4	47	4	4
Import-Export ratio	14:3	214:22	8:13	27:5
	82% import	91% import	38% import	84% import

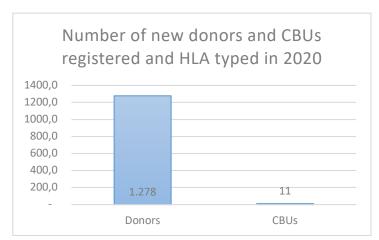


Bulgaria 6.95 million inhabitants

3.174



# Adult volunteer donors/CBUs added to the database during 2020:

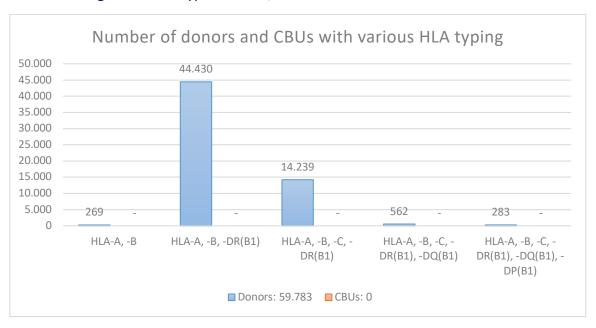


	ВМ	PBSC	СВИ	DLI
National	0	0	0	0
Export to EU member states	0	0	0	0
Export to third countries	0	0	0	0
Import from EU member states	3	18	0	0
Import from third countries	1	1	0	0
Import-Export ratio	4:0	19:0	NA	NA
	100% import	100% import		

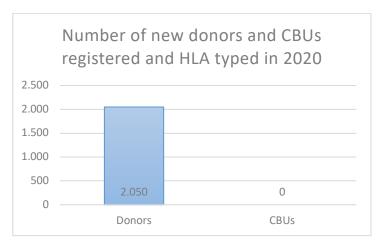


Croatia 4.06 million inhabitants

59.783



# Adult volunteer donors/CBUs added to the database during 2020:



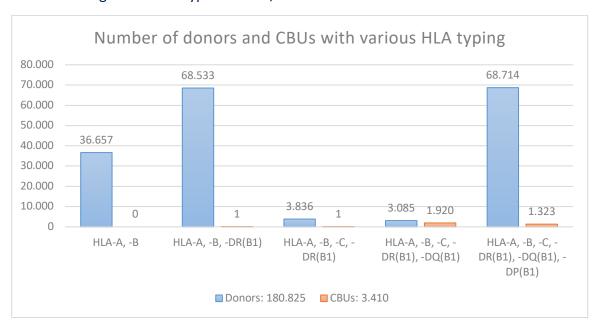
	вм	PBSC	СВИ	DLI
National	2	7	0	1
Export to EU member states	0	1	0	0
Export to third countries	0	0	0	0
Import from EU member states	5	40	0	3
Import from third countries	1	10	0	0
Import-Export ratio	6:0	50:1	NA	3:0
	100% import	98% import		100% import



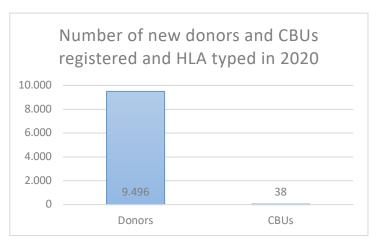
9.534

Cyprus 0.89 million inhabitants

# Number of registered and typed donors/CBUs on 31 December 2020: 184.070



# Adult volunteer donors/CBUs added to the database during 2020:



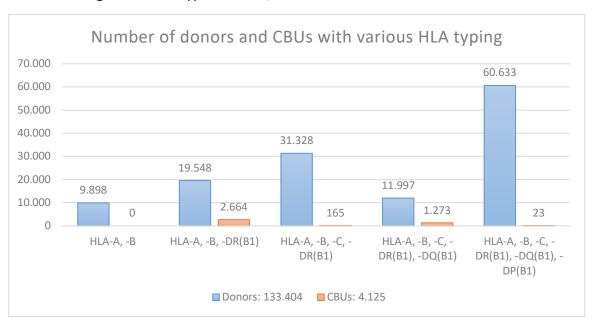
	ВМ	PBSC	СВИ	DLI
National	1	5	0	3
Export to EU member states	5	23	0	2
Export to third countries	0	11	2	2
Import from EU member states	0	0	0	0
Import from third countries	0	0	0	0
Import-Export ratio	0:5	0:34	0:2	0:4
	0% import	0% import	0% import	0% import



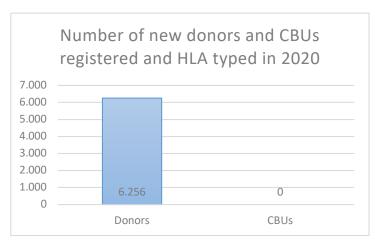
# Czechia 10.69 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:

137.529



# Adult volunteer donors/CBUs added to the database during 2020:



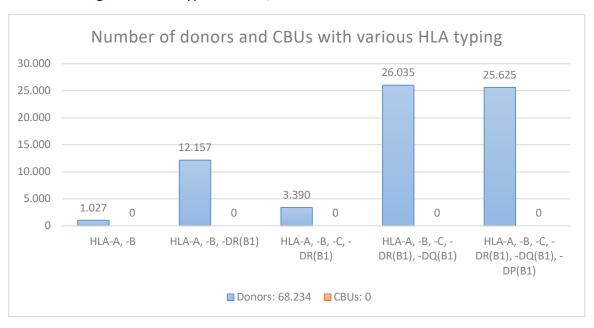
	BM	PBSC	СВИ	DLI
National	1	37	0	0
Export to EU member states	9	20	0	3
Export to third countries	1	10	0	2
Import from EU member states	4	108	0	8
Import from third countries	1	11	0	1
Import-Export ratio	5:10	119:30	NA	9:5
	33% import	89% import		64% import



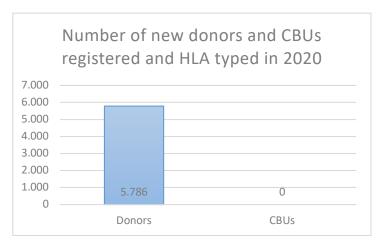
# Denmark 5.82 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:

68.234



#### Adult volunteer donors/CBUs added to the database during 2020:



	ВМ	PBSC	CBU	DLI
National	1	2	0	0
Export to EU member states	0	5	0	0
Export to third countries	0	4	0	2
Import from EU member states	18	89	1	11
Import from third countries	1	18	1	3
Import-Export ratio	19:0	107:9	2:0	14:2
	100% import	92% import	100% import	88% import

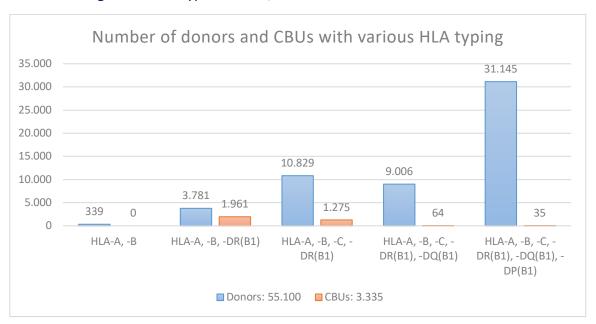


58.435

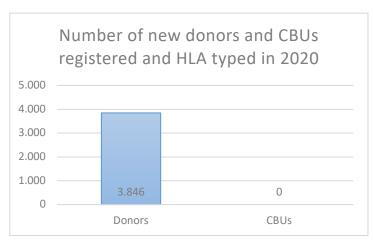
3.846

Finland 5.53 million inhabitants

# Number of registered and typed donors/CBUs on 31 December 2020:



# Adult volunteer donors/CBUs added to the database during 2020:

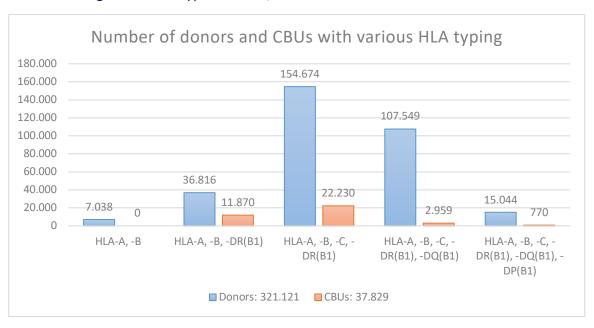


	ВМ	PBSC	СВИ	DLI
National	5	16	0	0
Export to EU member states	1	14	2	2
Export to third countries	2	8	1	1
Import from EU member states	10	53	0	5
Import from third countries	5	11	0	1
Import-Export ratio	15:3	64:22	0:3	6:3
	83% import	74% import	0% import	67% import

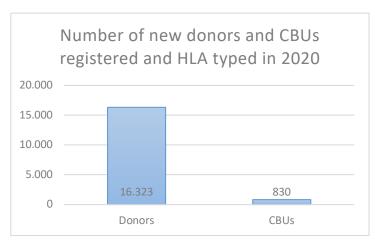


France 67.32 million inhabitants

358.950



# Adult volunteer donors/CBUs added to the database during 2020:



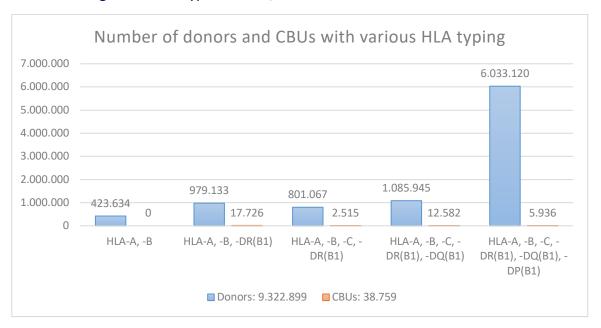
	ВМ	PBSC	CBU	DLI
National	10	64	38	10
Export to EU member states	4	35	16	5
Export to third countries	4	26	42	1
Import from EU member states	86	584	37	96
Import from third countries	15	163	21	21
Import-Export ratio	101:8	747:61	58:58	117:6
	93% import	92% import	50% import	95% import



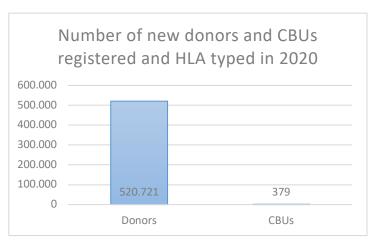
521.100

# Germany 83.17 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020: 9.361.658



# Adult volunteer donors/CBUs added to the database during 2020:

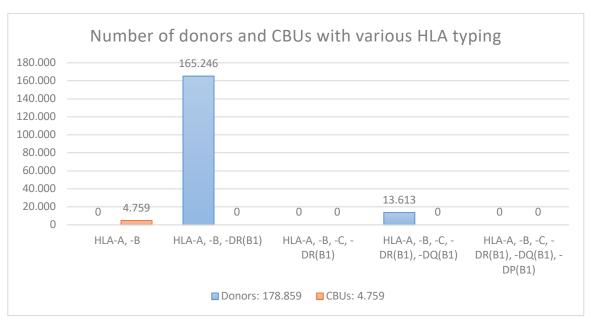


	ВМ	PBSC	CBU	DLI
National	168	1.855	0	322
Export to EU member states	275	2.017	5	224
Export to third countries	324	2.507	40	188
Import from EU member states	24	258	1	40
Import from third countries	14	160	1	33
Import-Export ratio	38:599	418:4524	2:45	73:412
	6% import	8% import	4% import	15% import

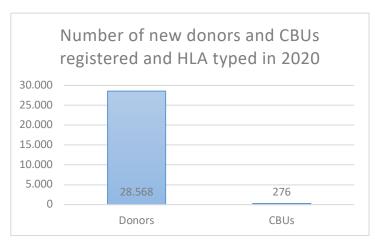


Greece 10.72 million inhabitants

183.618



#### Adult volunteer donors/CBUs added to the database during 2020:



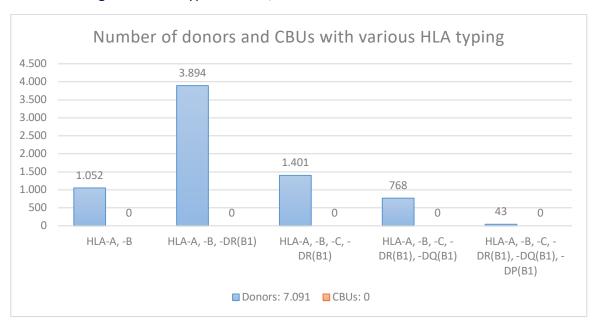
	ВМ	PBSC	CBU	DLI
National	0	23	0	4
Export to EU member states	3	18	0	1
Export to third countries	2	11	0	0
Import from EU member states	6	56	2	2
Import from third countries	0	11	2	0
Import-Export ratio	6:5	67:29	4:0	2:1
	55% import	70% import	100% import	67% import



# Hungary 9.77 million inhabitants

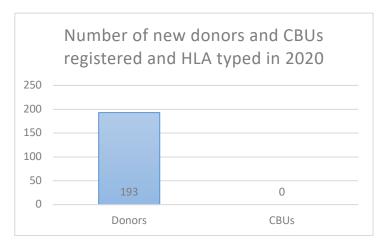
# Number of registered and typed donors/CBUs on 31 December 2020:

7.158



#### Adult volunteer donors/CBUs added to the database during 2020:

193

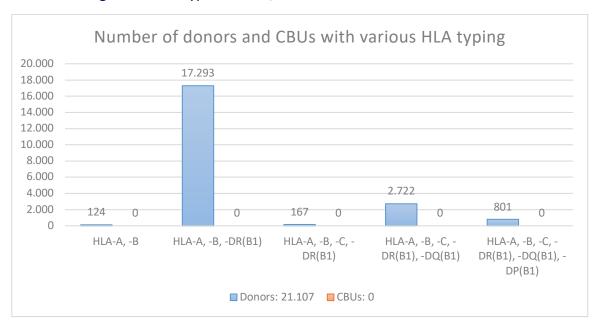


	ВМ	PBSC	CBU	DLI
National	0	0	0	0
Export to EU member states	0	0	0	0
Export to third countries	0	0	0	0
Import from EU member states	14	25	2	2
Import from third countries	0	7	1	0
Import-Export ratio	14:0	32:0	3:0	2:0
	100% import	100% import	100% import	100% import



Ireland 4.96 million inhabitants

21.107



# Adult volunteer donors/CBUs added to the database during 2020:

666



	ВМ	PBSC	CBU	DLI
National	2	1	0	0
Export to EU member states	0	0	0	0
Export to third countries	0	0	0	0
Import from EU member states	6	33	0	3
Import from third countries	5	11	1	1
Import-Export ratio	11:0	44:0	1:0	4:0
	100% import	100% import	100% import	100% import

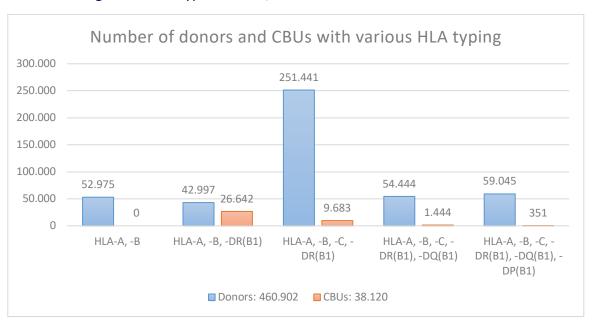


499.022

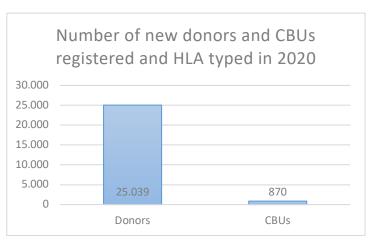
25.909

Italy 59.64 million inhabitants

# Number of registered and typed donors/CBUs on 31 December 2020:



# Adult volunteer donors/CBUs added to the database during 2020:



	ВМ	PBSC	CBU	DLI
National	33	197	10	23
Export to EU member states	7	23	12	10
Export to third countries	10	20	8	2
Import from EU member states	84	418	6	40
Import from third countries	24	138	4	18
Import-Export ratio	108:17	556:43	10:20	58:12
	86% import	93% import	33% import	83% import

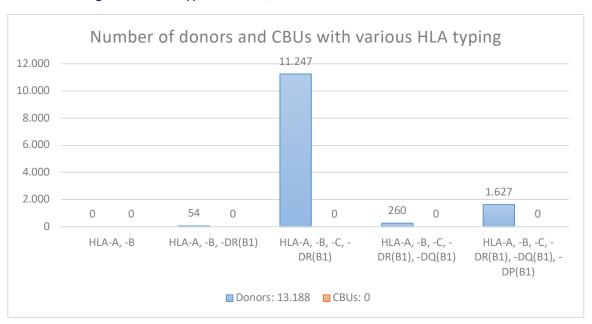


13.188

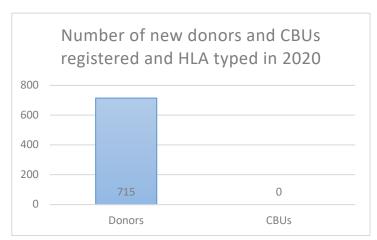
715

# Lithuania 2.79 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:



# Adult volunteer donors/CBUs added to the database during 2020:



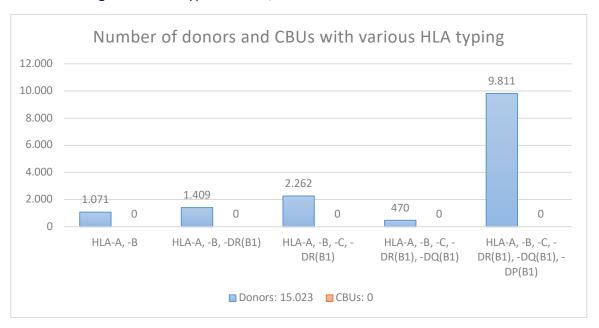
	ВМ	PBSC	CBU	DLI
National	1	10	0	0
Export to EU member states	1	1	0	0
Export to third countries	0	0	0	0
Import from EU member states	1	22	0	3
Import from third countries	0	2	0	0
Import-Export ratio	1:1	24:1	NA	3:0
	50% import	96% import		100% import



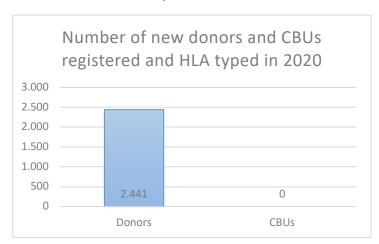
# Luxembourg 0.63 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:

15.023



#### Adult volunteer donors/CBUs added to the database during 2020:



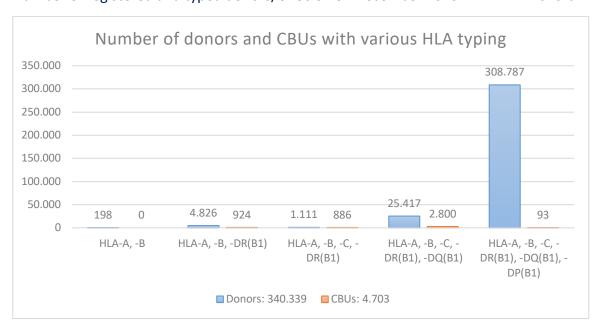
	ВМ	PBSC	CBU	DLI
National	0	0	0	0
Export to EU member states	1	7	0	1
Export to third countries	1	4	0	0
Import from EU member states	0	0	0	0
Import from third countries	0	0	0	0
Import-Export ratio	0:2	0:11	NA	0:1
	0% import	0% import		0% import



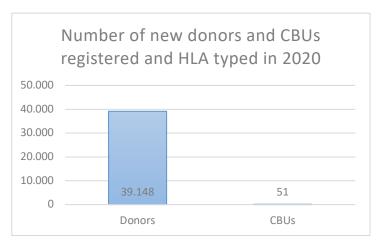
# Netherlands 17.41 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:

345.042



#### Adult volunteer donors/CBUs added to the database during 2020:

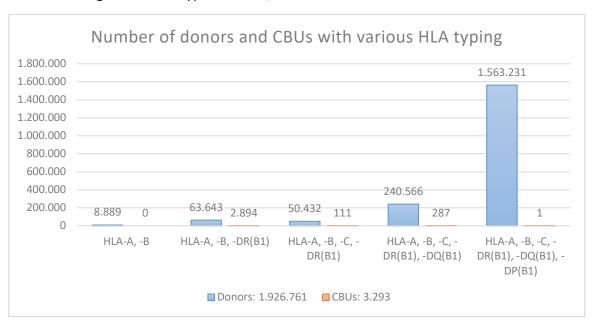


	ВМ	PBSC	CBU	DLI
National	4	29	2	10
Export to EU member states	9	84	1	3
Export to third countries	16	80	5	7
Import from EU member states	31	305	34	57
Import from third countries	16	64	33	12
Import-Export ratio	47:25	369:164	67:6	69:10
	65% import	69% import	92% import	87% import

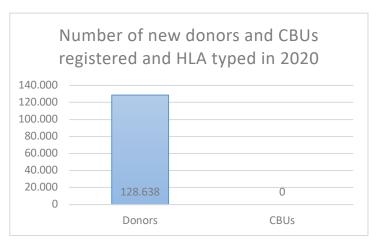


Poland 37.96 million inhabitants

1.903.054



# Adult volunteer donors/CBUs added to the database during 2020:

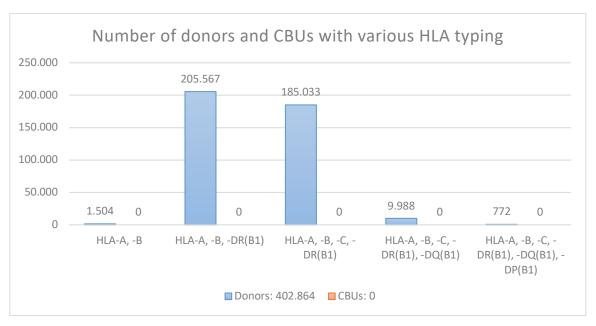


	вм	PBSC	CBU	DLI
National	16	266	0	12
Export to EU member states	57	513	0	59
Export to third countries	47	413	0	25
Import from EU member states	11	124	0	5
Import from third countries	0	14	0	0
Import-Export ratio	11:104	138:926	NA	5:84
	10% import	13% import		6% import

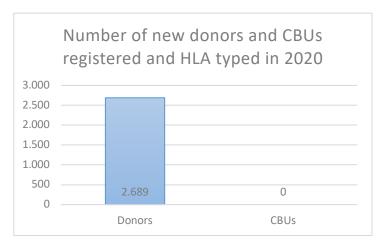


Portugal 10.30 million inhabitants

402.864



#### Adult volunteer donors/CBUs added to the database during 2020:



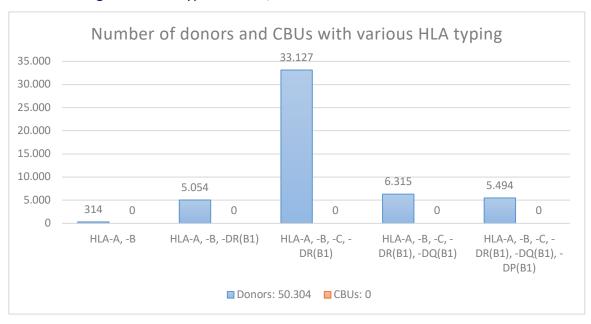
	вм	PBSC	CBU	DLI
National	4	22	0	1
Export to EU member states	1	21	0	2
Export to third countries	4	21	0	2
Import from EU member states	5	34	0	1
Import from third countries	1	6	0	0
Import-Export ratio	6:5	40:42	NA	1:4
	55% import	49% import		20% import



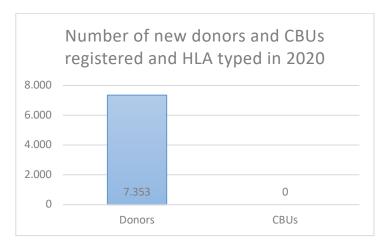
# Romania 19.33 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:

50.304



#### Adult volunteer donors/CBUs added to the database during 2020:



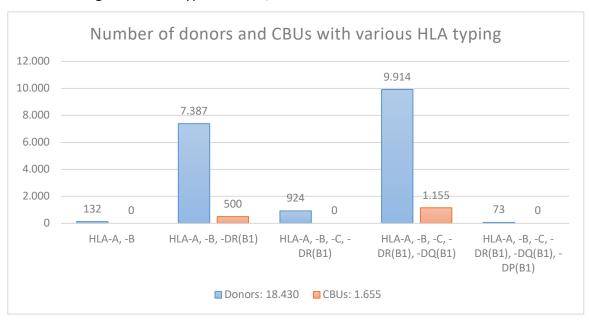
	ВМ	PBSC	CBU	DLI
National	0	3	0	0
Export to EU member states	0	2	0	0
Export to third countries	0	0	0	0
Import from EU member states	0	39	0	5
Import from third countries	0	2	0	1
Import-Export ratio	NA	41:2	NA	6:0
		95% import		100% import



# Slovakia 5.46 million inhabitants

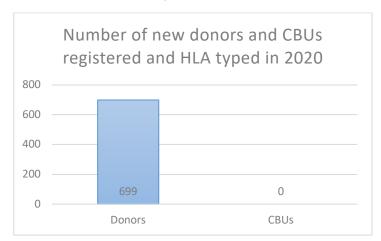
# Number of registered and typed donors/CBUs on 31 December 2020:

20.085



#### Adult volunteer donors/CBUs added to the database during 2020:

699



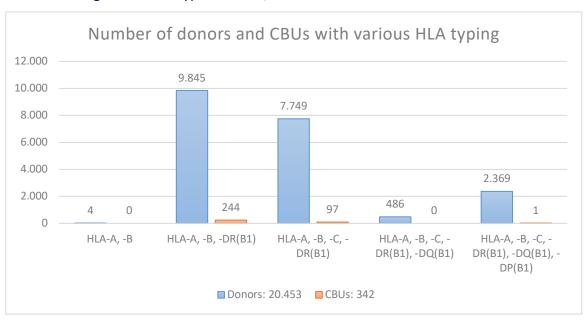
	ВМ	PBSC	CBU	DLI
National	1	7	0	0
Export to EU member states	0	4	0	0
Export to third countries	0	0	0	1
Import from EU member states	5	37	0	1
Import from third countries	0	2	0	0
Import-Export ratio	5:0	39:4	NA	1:1
	100% import	91% import		50% import



# Slovenia 2.10 million inhabitants

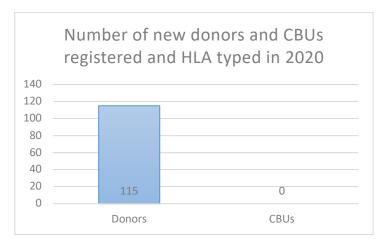
# Number of registered and typed donors/CBUs on 31 December 2020:

20.795



# Adult volunteer donors/CBUs added to the database during 2020:

115

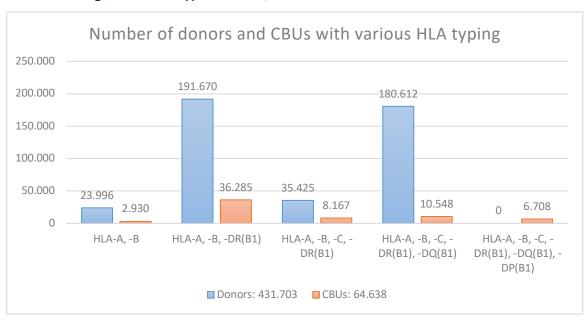


	вм	PBSC	СВИ	DLI
National	0	2	0	0
Export to EU member states	0	3	0	0
Export to third countries	0	0	0	0
Import from EU member states	0	16	0	0
Import from third countries	0	1	0	0
Import-Export ratio	NA	17:3	NA	NA
		85% import		

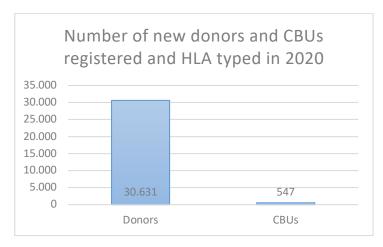


Spain 47.33 million inhabitants

496.341



#### Adult volunteer donors/CBUs added to the database during 2020:

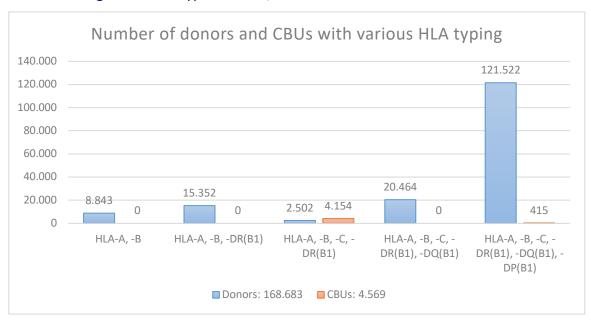


	вм	PBSC	CBU	DLI
National	11	105	17	5
Export to EU member states	8	40	45	9
Export to third countries	3	37	53	1
Import from EU member states	30	100	2	8
Import from third countries	10	203	3	5
Import-Export ratio	40:11	303:77	5:98	13:10
	78% import	80% import	5% import	57% import

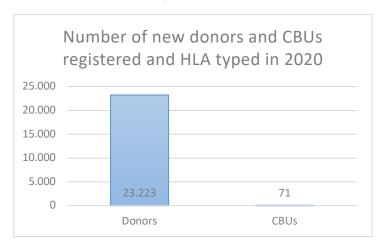


Sweden 10.33 million inhabitants

173.252



#### Adult volunteer donors/CBUs added to the database during 2020:



	вм	PBSC	СВИ	DLI
National	3	37	1	2
Export to EU member states	2	29	4	2
Export to third countries	2	34	2	2
Import from EU member states	15	79	1	6
Import from third countries	2	67	3	1
Import-Export ratio	17:4	146:63	4:6	7:4
	81% import	70% import	40% import	64% import



7.255

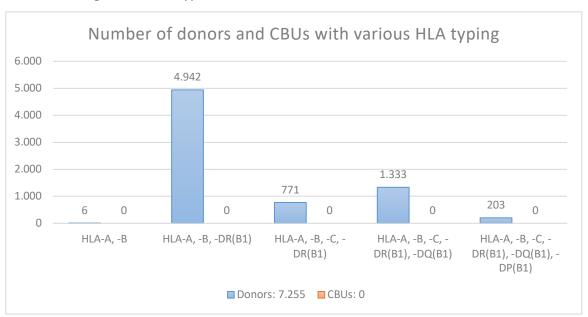
368

### EU candidate countries

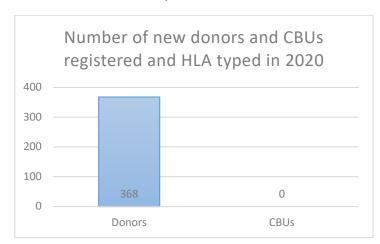
Candidate countries with active HSC donor and/or CB organisations include North Macedonia and Serbia. Turkey is not considered to be located on the European continent and is therefore left out of this scope.

Total 9.01 million inhabitants

#### Number of registered and typed donors/CBUs on 31 December 2020:



### Adult volunteer donors/CBUs added to the database during 2020:





	ВМ	PBSC	CBU	DLI
National	0	0	0	0
Export to EU member states	0	1	0	0
Export to third countries	0	0	0	0
Import from EU member states	2	27	0	0
Import from third countries	0	1	0	0
Import-Export ratio	2:0	28:1	NA	NA
	100% import	97% import		

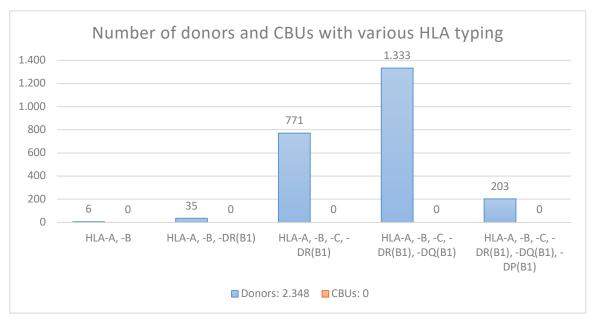


(North) Macedonia

2.08 million inhabitants

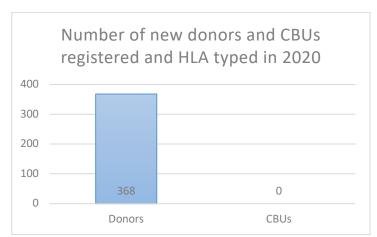
### Number of registered and typed donors/CBUs on 31 December 2020:

2.348



### Adult volunteer donors/CBUs added to the database during 2020:

368

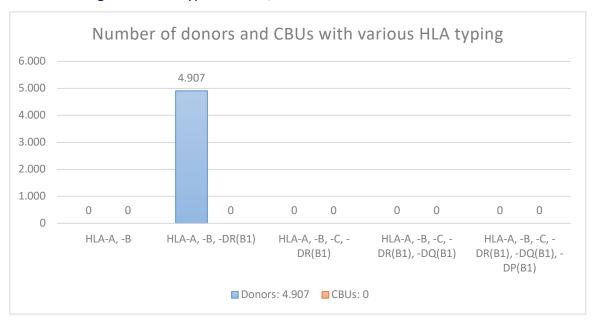


	вм	PBSC	СВИ	DLI
National	0	0	0	0
Export to EU member states	0	1	0	0
Export to third countries	0	0	0	0
Import from EU member states	1	4	0	0
Import from third countries	0	0	0	0
Import-Export ratio	1:0	4:1	NA	NA
	100% import	80% import		



Serbia 6.93 million inhabitants

4.907



### Adult volunteer donors/CBUs added to the database during 2020:

0

Number of new donors and CBUs registered and HLA typed in 2020						
1 —						
1 —						
1 -						
0 —						
0 —	0	0				
0 —	0	0				
	Donors	CBUs				

	BM	PBSC	СВИ	DLI
National	0	0	0	0
Export to EU member states	0	0	0	0
Export to third countries	0	0	0	0
Import from EU member states	1	23	0	0
Import from third countries	0	1	0	0
Import-Export ratio	1:0	24:0	NA	NA
	100% import	100% import		

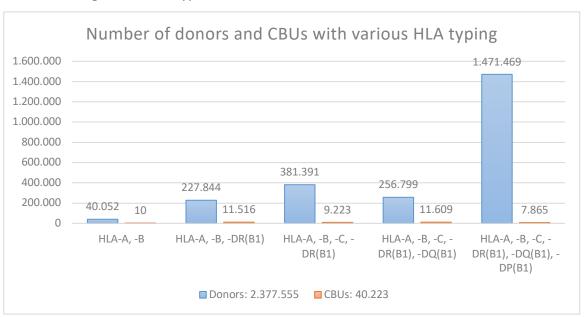


## European third countries

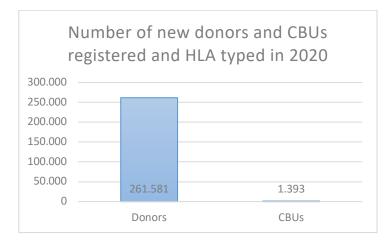
European third countries with active HSC donor and/or CB organisations include Norway, Russia, Switzerland and the UK.

Total 226.94 million inhabitants

Number of registered and typed donors/CBUs on 31 December 2020: 2.417.778



Adult volunteer donors/CBUs added to the database during 2020: 262.974





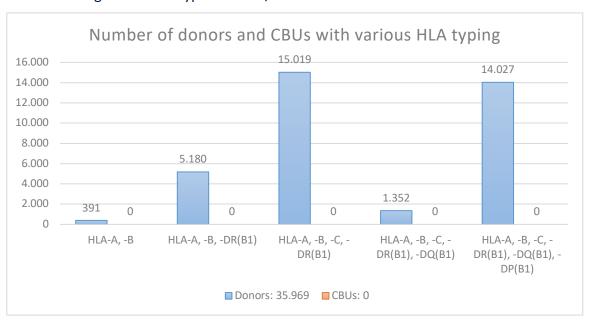
	вм	PBSC	CBU	DLI
National	32	332	36	46
Export to EU member states	36	246	19	36
Export to third countries	30	339	33	14
Import from EU member states	69	706	35	92
Import from third countries	13	187	71	15
Import-Export ratio	82:66	893:585	106:52	107:50
	55% import	60% import	67% import	68% import



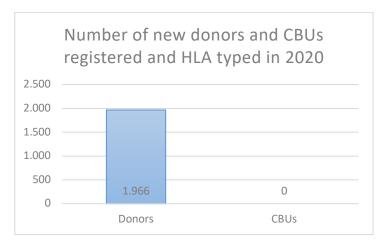
# Norway 5.37 million inhabitants

## Number of registered and typed donors/CBUs on 31 December 2020:

35.969



### Adult volunteer donors/CBUs added to the database during 2020:

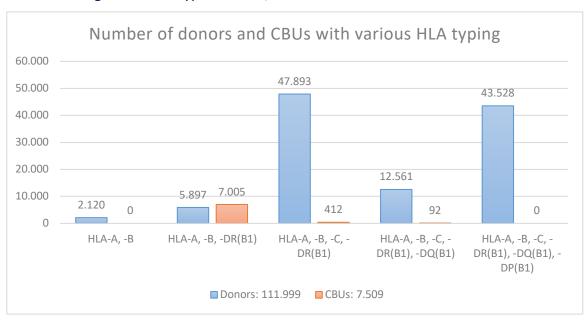


	ВМ	PBSC	СВИ	DLI
National	4	14	0	1
Export to EU member states	3	5	0	2
Export to third countries	3	6	0	1
Import from EU member states	11	70	0	11
Import from third countries	1	25	0	2
Import-Export ratio	12:6	95:11	NA	13:3
	67% import	82% import		81% import

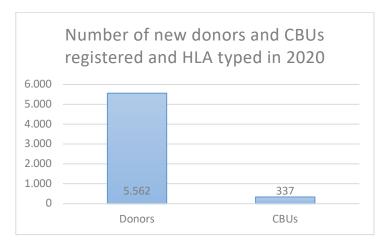


Russia 145.93 million inhabitants

119.508



### Adult volunteer donors/CBUs added to the database during 2020:



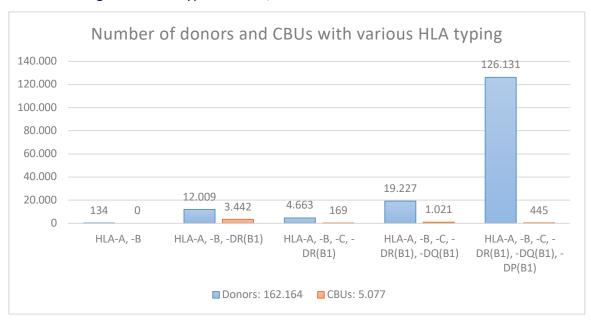
	ВМ	PBSC	CBU	DLI
National	3	35	0	1
Export to EU member states	0	0	0	0
Export to third countries	0	0	0	0
Import from EU member states	7	26	0	2
Import from third countries	1	1	0	0
Import-Export ratio	8:0	27:0	NA	2:0
	100% import	100% import		100% import



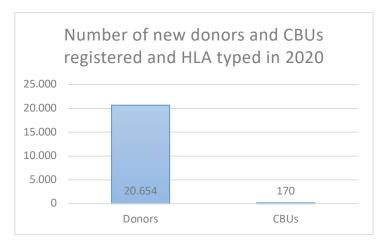
# Switzerland 8.61 million inhabitants

### Number of registered and typed donors/CBUs on 31 December 2020:

167.241



#### Adult volunteer donors/CBUs added to the database during 2020:



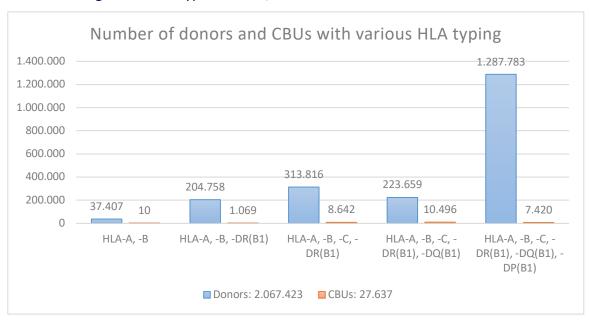
	ВМ	PBSC	СВИ	DLI
National	3	8	0	1
Export to EU member states	3	29	2	2
Export to third countries	1	26	2	0
Import from EU member states	11	103	1	16
Import from third countries	1	26	1	4
Import-Export ratio	12:4	129:55	2:4	20:2
	75% import	70% import	33% import	91% import



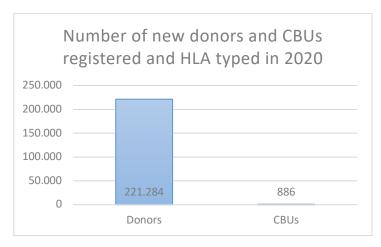
# UK 67.03 million inhabitants

### Number of registered and typed donors/CBUs on 31 December 2020:

2.095.060



#### Adult volunteer donors/CBUs added to the database during 2020:



	ВМ	PBSC	CBU	DLI
National	22	275	36	43
Export to EU member states	30	212	17	32
Export to third countries	26	307	31	13
Import from EU member states	40	507	34	63
Import from third countries	10	135	70	9
Import-Export ratio	50:56	642:519	104:48	72:45
	47% import	55% import	68% import	62% import



## References

- 1. <a href="https://share.wmda.info">https://share.wmda.info</a>
- 2. mail@wmda.info
- 3. WMDA Global Trends Report 2020
- 4. https://europa.eu/european-union/about-eu/figures/living\_en

