



EUROCET

*European network of Competent
Authorities for tissues and cells*

Report 2022

Summary of MAR activities Year 2021

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European Network of Competent Authorities for Tissues and Cells

Report 2022

This document has been produced by EURO CET with the data collected by Competent Authorities for Medical Assisted Reproduction (MAR) from **16** European Member States (EU MS), and **2** Extra EU countries. (*Appendix I*)

The following report shows calculations regarding the whole donation-processing-distribution-transplantation process in the field of MAR for the **year 2021**. (only for Spain the reference year is 2020)

The data requested is focused only on donation, leaving out procedures such as FET and all data on results. The MAR data is divided into seven sections: one for collecting data on **partner donation** performed through **IUI and IVF/ICSI**; one on **non-partner donation** activities using **sperm** or **oocytes** or **embryos/zygotes**; one on **non-partner sperm donation** performed through **IUI, IVF/ICSI**, one on **non-partner oocyte donation** performed through **IVF/ICSI**, one on **non-partner oocyte and sperm donation** performed through **IVF/ICSI**, one on **preservation of reproductive capacity (for social and medical reasons)** and a last one on **distribution and exchange of non-partner gametes/embryos (commercialisation)** using **sperm, oocytes** and **embryos/zygotes**.

The glossary (Appendix II) has been updated with definitions from both the “EU directive 24/2003 of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells” and the “Guide to the quality and safety of tissues and cells for human application, 3rd Edition, 2017” by the Council of Europe.

Eurocet Team

Italian National Transplant Centre

For a correct interpretation of the values in the tables, please take into account the following legenda:

NA (Not Available): The requested activity is present in the country but the Competent Authority does not collect the data yet.

NE (Not Existing): the Competent Authority is present in the country but there is not the requested activity.

Blank field: the Competent Authority did not provide any kind of data for this field.

MAR with partner donation

Partner donation - IUI		
COUNTRY	Year	N° of couples treated
AT	2021	
BE		
BG		
CH		
CY		
CZ	2021	
DE	2021	
DK	2021	4.407
EE	2021	
ES	2021	8.079
FI	2021	
FR		
GR		
HR	2021	894
HU	2021	2.682
IE		
IS		
IT		
LT	2021	840
LU	2021	304
LV	2021	165
MD	2021	132
MK		
MT		
NL	2021	12.521
NO	2021	388
PL		
PT		
RO	2021	2.963
SE	2021	499
SI		
SK	2021	2.068
TR		
UK		

Partner donation - IVF/ICSI

COUNTRY	Year	N° of couples treated	N° of oocytes retrievals	N° of oocyte cryopreservation procedures	N° of sperm cryopreservation procedures	N° of embryos cryopreservation procedures	N° of embryos (or zygotes) transfers (ET) (fresh and frozen)
AT	2021		10.089				
BE							
BG							
CH							
CY							
CZ	2021	9.315	11.170	46		5.595	7.588
DE	2021						
DK	2021	4.253	12.179	78	NA	2.626	11.425
EE	2021						2.471
ES	2021	34.839	41.192	6.144		25.767	45.342
FI	2021						6.820
FR							
GR							
HR	2021	4.109	5.144	91	175	1.834	6.338
HU	2021	8.189	14.482	139	594	4.420	10.527
IE							
IS							
IT							
LT	2021	1.292	950	27	9	605	1.532
LU	2021	479	579	1	0	364	883
LV	2021	1.413	1.519	8	10	1.191	1.632
MD	2021	1.233	1.387	22	319	634	1.523
MK							
MT							
NL	2021	13.990	NA	NA	NA	NA	26.770
NO	2021	5.500	6.788	481	292	3.595	8.360
PL							
PT							
RO	2021	6.678	8.894				8.641
SE	2021	9.250	10.870	9.053	6.344	16.194	15.550
SI							
SK	2021	3.792	4.244	86	905	2.896	6.804
TR							
UK							

Partner donation - TOTAL

COUNTRY	Year	N° of couples treated	N° of oocyte retrievals	N° of oocyte cryopreservation procedures	N° of sperm cryopreservation procedures	N° of embryos cryopreservation procedures	N° of embryos (or zygotes) transfers (ET) (fresh and frozen)
AT	2021		10.089				
BE							
BG							
CH							
CY							
CZ	2021	9.315	11.170	46		5.595	7.588
DE	2021		738.583				
DK	2021	7.837	12.179	78	NA	2.626	11.425
EE	2021						2.471
ES	2021	42.918	41.192	6.144		25.767	45.342
FI	2021	6.903					6.820
FR							
GR							
HR	2021	5.003	5.144	91	175	1.834	6.338
HU	2021	10.871	14.482	139	594	4.420	10.527
IE							
IS							
IT							
LT	2021	2.132	950	27	9	605	1.532
LU	2021	783	579	1	1	364	883
LV	2021	1.578	1.531	36	62	1.191	1.828
MD	2021	1.365	1.387	22	319	634	1.523
MK							
MT							
NL	2021	26.511	NA	NA	NA	NA	26.770
NO	2021	5.888	6.788	481	292	3.595	8.360
PL							
PT							
RO	2021	9.641	8.894				8.641
SE	2021	9.749	10.870	9.053	6.344	16.194	15.550
SI							
SK	2021	5.860	4.244	86	905	2.896	6.804
TR							
UK							

Non partner donation activities

Non Partner Donation Activities - SPERM			
COUNTRY	Year	N° of donors (with actual donation)	N° of donations (sperm collection)
AT	2021	116	317
BE			
BG			
CH			
CY			
CZ	2021		
DE*	2021		153.533
DK	2021	1.099	28.112
EE	2021	29	
ES	2021		
FI	2021	182	1.357
FR			
GR			
HR	2021	0	0
HU	2021	302	415
IE			
IS			
IT			
LT	2021	27	42
LU	2021	NE	NE
LV	2021	14	48
MD	2021	5	5
MK			
MT			
NL	2021	NA	NA**
NO	2021	83	421
PL			
PT			
RO	2021	52	
SE	2021	1.323	2.146
SI			
SK	2021	61	354
TR			
UK			

*Partner and Non-partner sperm donation

** number of processed donor sperm units is 4810.

Non Partner Donation Activities - EMBRYOS/ZYGOTES		
COUNTRY	Year	N° of donation (sperm/oocytes collection)
AT	2021	41
BE		
BG		
CH		
CY		
CZ	2021	
DE	2021	NE
DK	2021	
EE	2021	
ES	2021	2.309
FI	2021	84
FR		
GR		
HR	2021	0
HU	2021	157
IE		
IS		
IT		
LT	2021	
LU	2021	NE
LV	2021	2
MD	2021	0
MK		
MT		
NL	2021	NA
NO	2021	0
PL		
PT		
RO	2021	24
SE	2021	NE
SI		
SK	2021	129
TR		
UK		

Non Partner Donation Activities - EMBRYOS/ZYGOTES		
COUNTRY	Year	N° of donation (sperm/oocytes collection)
AT	2021	41
BE		
BG		
CH		
CY		
CZ	2021	
DE	2021	NE
DK	2021	
EE	2021	
ES	2021	2.309
FI	2021	84
FR		
GR		
HR	2021	0
HU	2021	157
IE		
IS		
IT		
LT	2021	
LU	2021	NE
LV	2021	2
MD	2021	0
MK		
MT		
NL	2021	NA
NO	2021	0
PL		
PT		
RO	2021	24
SE	2021	NE
SI		
SK	2021	129
TR		
UK		

MAR with non partner SPERM donation

Non Partner SPERM Donation - IUI		
COUNTRY	Year	N° of treatment cycles with sperm donation
AT	2021	608
BE		
BG		
CH		
CY		
CZ	2021	
DE	2021	
DK	2021	6.594
EE	2021	
ES	2021	11.351
FI	2021	2.954
FR		
GR		
HR	2021	0
HU	2021	135
IE		
IS		
IT		
LT	2021	17
LU	2021	152
LV	2021	87
MD	2021	5
MK		
MT		
NL	2021	9.840
NO	2021	1.339
PL		
PT		
RO	2021	202
SE	2021	544
SI		
SK	2021	70
TR		
UK		

Non Partner SPERM Donation - IVF/ICSI				
COUNTRY	Year	N° of treatment cycles with sperm donation	N° of embryo or zygote transfers (ET)(fresh and frozen/cryo)	N° of frozen embryos/zygotes
AT	2021	630		1.139
BE				
BG				
CH				
CY				
CZ	2021	724	568	1.366
DE	2021			
DK	2021	1.904	3.477	1.738
EE	2021		228	363
ES	2021		11.258	
FI				
FR				
GR				
HR	2021	0	0	0
HU	2021	465	354	394
IE				
IS				
IT				
LT	2021	29	26	59
LU	2021	64	85	107
LV	2021	145	127	296
MD	2021	6	8	37
MK				
MT				
NL	2021	NA	1.654	3.553
NO	2021	1.081	1.171	1.522
PL				
PT				
RO	2021	336	323	
SE	2021	2.023	2.115	2.426
SI				
SK	2021	172	175	358
TR				
UK				

Non Partner SPERM Donation - TOTAL				
COUNTRY	Year	N° of treatment cycles with sperm donation	N° of embryo or zygote transfers (ET)(fresh and frozen/cryo)	N° of frozen embryos/zygotes
AT	2021	1.238		1.139
BE				
BG				
CH				
CY				
CZ	2021	724	568	1.366
DE	2021			
DK	2021	8.498	3.477	1.738
EE	2021		228	363
ES	2021	11.351	11.258	
FI	2021	2.954		
FR				
GR				
HR	2021	0	0	0
HU	2021	600	354	394
IE				
IS				
IT				
LT	2021	46	26	59
LU	2021	216	85	107
LV	2021	232	145	296
MD	2021	11	8	37
MK				
MT				
NL	2021	9.840	1.654	3.553
NO	2021	2.420	1.171	1.522
PL				
PT				
RO	2021	538	323	
SE	2021	2.574	2.115	2.426
SI				
SK	2021	242	175	358
TR				
UK				

MAR with non partner OOCYTE donation

Non Partner OOCYTE Donation - IVF/ICSI				
COUNTRY	Year	N° of treatment cycles with oocyte donation	N° of embryo or zygote transfers (ET)(fresh and frozen/cryo)	N° of frozen embryos/zygotes
AT	2021	145		1.104
BE				
BG				
CH				
CY				
CZ	2021	4.328	3.293	11.785
DE	2021	NE	NE	NE
DK	2021	2.632	1.838	2.356
EE	2021		212	320
ES	2021	34.907	27.272	33.678
FI	2021		839	
FR				
GR				
HR	2021	0	0	0
HU	2021	37	55	87
IE				
IS				
IT				
LT	2021	10	13	54
LU	2021	NE	NE	NE
LV	2021	204	310	678
MD	2021	12	9	60
MK				
MT				
NL	2021	NA	408	643
NO	2021	49	23	99
PL				
PT				
RO	2021	352	422	
SE	2021	706	692	1.271
SI				
SK	2021	379	324	1.000
TR				
UK				

MAR with non partner OOCYTE and SPERM donation

Non Partner OOCYTES AND SPERM Donation - IVF/ICSI				
COUNTRY	Year	N° of treatment cycles with embryo donation	N° of embryo or zygote transfers (ET) (fresh and frozen/cryo)	N° of frozen embryos/zygotes
AT	2021	13		35
BE				
BG				
CH				
CY				
CZ	2021	206	145	539
DE	2021	NE	NE	NE
DK	2021	523	523	43
EE	2021		38	134
ES	2021			
FI	2021		249	
FR				
GR				
HR	2021	0	0	0
HU	2021	51	56	4
IE				
IS				
IT				
LT	2021	NE	NE	NE
LU				
LV	2021	43	128	184
MD	2021	0	0	0
MK				
MT				
NL	2021	NA	109	636
NO	2021	0	0	0
PL				
PT				
RO	2021	22	23	
SE	2021	NE	NE	NE
SI				
SK	2021	124	142	193
TR				
UK				

Distribution and exchange of NON-PARTNER GAMETES/EMBRYOS

Distribution and exchange of NON PARTNER - SPERM							
COUNTRY	Year	N° of sperm straws distributed TO a foreign country	Inside the EU	Outside the EU	N° of sperm straws received FROM a foreign country	Inside the EU	Outside the EU
AT	2021	5	5	0	328	328	0
BE							
BG							
CH							
CY							
CZ	2021						
DE*	2021	1.708	854	1.129	8.758	4.379	160
DK	2021	73.279.5	64.059	9.220.5	2	0	2
EE	2021	UK	UK	UK	UK	UK	UK
ES							
FI	2021	0	0	0	860	860	0
FR							
GR							
HR	2021	0	0	0	0	0	0
HU	2021	0	0	0	140	139	1
IE							
IS							
IT							
LT	2021						
LU	2021	37	37	0	299	299	0
LV	2021	0	0	0	174	174	0
MD	2021	NE	NE	NE	NE	NE	NE
MK							
MT							
NL	2021	21	21	0	5.779	5.779	0
NO	2021	0	0	0	2.327	2.327	0
PL							
PT							
RO	2021	10	10	0	475	466	9
SE	2021	66	66	0	769	769	0
SI							
SK	2021	55	55		111	111	
TR							
UK							

Distribution and exchange of NON PARTNER - OOCYTES

COUNTRY	Year	N° of oocytes distributed TO a foreign country	Inside the EU	Outside the EU	N° of oocytes received FROM a foreign country	Inside the EU	Outside the EU
AT	2021	0	0	0	299	299	0
BE							
BG							
CH							
CY							
CZ	2021						
DE	2021	NE	NE	NE	NE	NE	NE
DK	2021	NA	NA	NA	NA	NA	NA
EE	2021	UK	UK	UK	UK	UK	UK
ES	2021						
FI	2021	0	0	0	928	928	0
FR							
GR							
HR	2021	0	0	0	0	0	0
HU	2021	0	0	0	0	0	0
IE							
IS							
IT							
LT	2021						
LU	2021	0	0	0	0	0	0
LV	2021	0	0	0	0	0	0
MD	2021	NE	NE	NE	NE	NE	NE
MK							
MT							
NL	2021	NA	NA	NA	0	0	0
NO	2021	0	0	0	28	28	0
PL							
PT							
RO	2021	89	89	0	3.594	3.594	0
SE	2021	31	31	0	611	611	0
SI							
SK	2021	655	655		5	5	
TR							
UK							

Non Partner Donation Activities - EMBRYOS/ZYGOTES

COUNTRY	Year	N° of embryos/zygotes distributed TO a foreign country	Inside the EU	Outside the EU	N° of embryos/zygotes received FROM a foreign country	Inside the EU	Outside the EU
AT	2021	0	0	0	23	23	0
BE							
BG							
CH							
CY							
CZ	2021						
DE	2021	NE	NE	NE	NE	NE	NE
DK	2021	NA	NA	NA	NA	NA	NA
EE	2021	UK	UK	UK	UK	UK	UK
ES	2021						
FI	2021	0	0	0	0	0	0
FR							
GR							
HR	2021	0	0	0	0	0	0
HU	2021	46	38	8	0	0	0
IE							
IS							
IT							
LT	2021						
LU	2021	37	37	0	0	0	0
LV	2021	0	0	0	0	0	0
MD	2021	NE	NE	NE	NE	NE	NE
MK							
MT							
NL	2021	0	0	0	0	0	0
NO	2021	0	0	0	0	0	0
PL							
PT							
RO	2021	0	0	0	0	0	0
SE	2021	0	0	0	0	0	0
SI							
SK	2021	39	39		190	190	
TR							
UK							

Preservation of reproductive capacity

COUNTRY	Year	N° of oocyte cryopreservation procedures	N° of sperm cryopreservation procedures	N° of patients with ovarian tissue collected	N° of patients with testicular tissue collected
AT	2021			22	30
BE					
BG					
CH					
CY					
CZ	2021				
DE	2021				
DK	2021				
EE	2021			NE	NE
ES	2021	5.480	1.060	26	90
FI	2021				
FR					
GR					
HR	2021	65	343	0	106
HU	2021	135	360	6	46
IE					
IS					
IT					
LT	2021	30	104	1	
LU	2021	2	152	3	NE
LV	2021	75	167	0	2
MD	2021	1	10	0	0
MK					
MT					
NL	2021	NA	NA	654	13
NO	2021	283	601	3	5
PL					
PT					
RO	2021	186	415	0	44
SE	2021	NA	NA	28	93
SI					
SK	2021	221	813	0	35
TR					
UK					

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Appendix I

List of countries and Competent Authorities providing data for 2021

✓ Austria BASG - Bundesamt für Sicherheit im Gesundheitswesen - Federal Office for Safety in Health Care
Belgium
Bulgaria
✓ Croatia Ministarstvo zdravstva Zavod za transplantaciju i biomedicine Služba za transplantaciju (Ministry of Health and Social Welfare)
Cyprus
✓ Czechia Ministerstvo zdravotnictví České republiky (MZCR) (Ministry of Health of the Czech Republic)
✓ Denmark Styrelsen for patientsikkerhed (STPS) (Danish Patient Safety Authority)
✓ Estonia Ravimiamet (Republic of Estonia Agency of Medicines)
✓ Finland Lääkealan turvallisuus- ja kehittämiskeskus (FIMEA) (Finnish Medicines Agency)
France
✓ Germany Paul-Ehrlich-Institut (PEI) (Division of Medical Biotechnology)
Greece
✓ Hungary Nemzeti Népegészségügyi Központ (National Public Health Center)
Iceland
Ireland
Italy
✓ Latvia Zāļu Valsts Aģentūra (ZVA) (Latvian State Agency of Medicines)

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✓ **Lithuania**

Lietuvos Respublikos Sveikatos Apsaugos Ministerija - Šeimos sveikatos skyrius (SAM) (Health Care Ministry - Family Health Division)

✓ **Luxembourg**

Ministère de la Santé – Direction de la Santé (MS-EATAT) (Ministry of Health)

Macedonia

Malta

✓ **Moldova**

Agenția de Transplant (MD) (The Transplant Agency)

✓ **Netherlands**

Ministerie van Volksgezondheid, Welzijn en Sport (MINVWS) (Minister of Health, Welfare and Sport)

✓ **Norway**

Helsedirektoratet (HDIR) (The Directorate for Health)

Poland

Portugal

✓ **Romania**

Agentia Națională de Transplant (ANT) (National Transplant Agency)

✓ **Slovakia**

Ministerstvo zdravotníctva Slovenskej republiky (NTO)(National Transplant Organisation)

Slovenia

✓ **Spain**

Ministerio de Sanidad, Servicios Sociales e Igualdad (Ministry of Health, Social Services and Equity)

✓ **Sweden**

Health and Social Care Inspectorate (IVO)

Switzerland

Turkey

United Kingdom

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Appendix II

Glossary

—■ A

Actual donation: A donation in which the donated tissue or cells are considered acceptable for human application after all screening and quarantine procedures.

—■ C

Collection: A process by which tissue or cells are made available.

Couples treated: All couples that initiated a treatment cycle

Cryopreservation: The process of slow freezing or vitrification to preserve biological material (e.g. gametes, zygotes, cleavage-stage embryos, blastocysts or gonadal tissue) at extreme low temperature

Competent Authority (or Health Authority/Regulatory Authority/Regulatory Agency): the body which has been delegated with the responsibility for ensuring that tissue and cell donation, banking and human application are appropriately promoted, regulated and monitored in the interests of donor and patient safety and public transparency on a national or regional basis by their government.

—■ D

Donation: means donating human tissues or cells intended for human applications.

Donor: An individual, living or deceased, who is a source of tissue, cells or embryos for human application and for other purpose including reasearch, from whom tissue, cells and/or embryos have been retrieved

Distribution: Transportation and delivery of tissues, cells and/or embryos to an organization responsible for human application in the EU

—■ E

Embryo: The biological organism resulting from the development of the zygote, until eight completed weeks after fertilization, equivalent to 10 weeks of gestational age.

Embryo donation: The process by which a woman (or couple) donate embryos to enable another woman (or couple) to conceive.

Embryo Transfer (ET): Placement into the uterus of an embryo at any embryonic stage from day 1 to day 7 after IVF or ICSI. Embryos from day 1 to day three can also be transferred into the Fallopian tube

—■ F

Fresh Embryo: An embryo at any embryonic stage from day 1 to day 7 after IVF or ICSI, in the absence of cryopreservation.

Frozen Embryo: A cryopreserved embryo at any embryonic stage from day 1 to day 7 after IVF or ICSI.

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Frozen Tissue: A cryopreserved tissue.

—■ H

Human Application: The use of tissues or cells on or in a human recipient.

Human tissues and cells for human application: Material containing or consisting of human tissues and/or cells intended for implantation, transplantation, infusion, or transfer into a human recipient.

—■ I

Intracytoplasmic sperm injection (ICSI): A procedure in which a single spermatozoon is injected into the oocyte cytoplasm.

In Vitro Fertilisation (IVF): Medically assisted reproduction procedure that involves extracorporeal fertilization. It includes in vitro insemination and intracytoplasmatic sperm injection.

Intra Uterine Insemination (IUI): A procedure in which laboratory processed sperm are placed in the uterus to attempt a pregnancy.

—■ M

Medically assisted reproduction (MAR): Reproduction brought about through various interventions that includes in vitro handling of both human oocytes and sperm, or of embryos, for the purpose of treating different forms of fertility impairment and infertility. These include, but are not limited to, ovulation induction, ovarian stimulation, ovulation triggering, intra-uterine, intracervical and intravaginal insemination with semen of husband/partner or donor, in vitro fertilization, embryo transfer and intracytoplasmatic sperm injection.

—■ N

Non Partner donation: Donation of reproductive cells between a man and a woman who do not have an intimate physical relationship; also called 'third party donation'.

—■ O

Oocyte: The female gamete (egg).

Ovarian tissue: Tissue surgically excised from the ovary with the intention of preserving reproductive capacity.

—■ P

Partner donation: Donation of reproductive cells between a man and a woman who declare that they have an intimate physical relationship.

Procurement: means a process by which tissue or cells are made available;

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—■ R

Retrieval or Recovery: see Procurement

—■ S

Sperm: The male gamete cell. Here used as the ensemble of all spermatozoa in the ejaculate.

Straw: Small storage device used for the cryogenic storage.

—■ T

Tissue: All constituent parts of the human body formed by cells.

Tissue Establishment: A tissue bank or a unit of a hospital or another body where activities of processing, preservation, storage or distribution of human tissues and cells are undertaken. It may also be responsible for procurement and/or testing of tissues and cells.

Tissue donation (effective): When tissue intended for human application is retrieved from a human body.

Testicular tissue: Tissue surgically excised from the testis with the intention of preserving reproductive capacity.

Transplantation/implantation/grafting: Transfer (engraftment) of human tissues or cells from a donor to a recipient with the aim of restoring function(s) in the body.

Treatment cycle: A cycle in which the woman receives specific medication for ovarian stimulation or in which cycle monitoring is carried out with the intention to treat, irrespective of whether or not insemination is performed, follicular aspiration is attempted in an ovarian stimulation cycle or whether egg(s) or embryo (s) are thawed or transferred in a frozen embryo transfer (FET) cycle.

—■ U

Unique donation number: The unique number attributed to a specific donation of tissues and cells in line with the system in place in each Member State for allocating such numbers, as further specified in Annex VII to Commission Directive (EU) 2015/565.

—■ Z

Zygote: A single cell resulting from fertilization of a mature oocyte by a spermatozoon and before completion of the first mitotic division.