Tel +32 2 8806216
info@ supply-project.eu
www.supply-project.eu

c/o BICS
Clos Chapelle-aux-Champs
30 – bte 1.30.30
B-1200 Brussels
Belgium

Grant Agreement 101056988

SUPPLY

Strengthening voluntary non-remunerated plasma collection capacity in Europe

Document type: Deliverable D2.1

Version: Version No. 1

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Introduction

Plasma donations are essential to produce plasma-derived medicine (PDMP) or for treating critical conditions of patients in need (e.g., cancer patients). However, there is a substantial estimated shortfall of over 5 million litres of plasma needed to manufacture plasma-derived medicines for about 300,000 patients in the EU (Brussels Times 2023). This shortfall of plasma donations is not a temporary issue that results from the COVID-19 pandemic. Already Strengers (2016) considered plasma as an economically important raw material with a high risk of supply interruption. Thus, **plasma is a strategic resource** and requires specific EU attention. Currently, the **strategic position of the EU is weak** because the EU largely depends on plasma collected outside of Europe, mostly from the U.S., which is about 40% (Brussels Times 2023). Given its strategic relevance, the EU needs to achieve a sufficient level of strategic independence in plasma by increasing donations to ensure the long-term supply of PDMPs needed by patients in Europe.

The **SUPPLY project aims to increase plasma collection** and strengthen the resilience of voluntary non-renumerated plasma collection programmes by non-profit Blood Establishments (BE) throughout the EU, while maintaining donor safety, to ensure optimal availability of PDMPs for patients both in a general situation as well as in times of crises.

The main responsibility, which falls upon Work Package 2 (WP2 – Donor recruitment and retention best practices), is to provide evidence-based recommendations and implementation tools towards best practices regarding (unpaid) plasma donor recruitment and retention. **This first deliverable of WP2 provides an overview of the incentives used in the EU**. We are constantly reviewing and improving the overview throughout the SUPPLY project to maintain an up-to-date database. Additionally, we are constantly adding other countries to the database and search for innovative incentives used by BEs.

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

We studied 1.033 BE across our target countries including the EU, rest of Europe and countries of interest outside of Europe (see Appendix for the list).

Across the member states of the EU, we observe substantial differences in how BE target new or established plasma donors by offering monetary and non-monetary incentives to individuals. This deliverable discusses (1) the different market settings (monopolies versus competition from private organizations), (2) relates the incentives to the different rungs of the intervention ladder according to Nuffield Council on Bioethics (2011), and (3) provides an overview of the monetary and non-monetary incentives executed in members of the EU.

Design of the WP2 Process

WP2 comprises three successive phases:
(1) creating a first overview of plasma donor recruitment and retention strategies throughout Europe (and beyond),
(2) assessing identified practices in regard of efficiency as well as identifying novel practices with strong potential, and
(3) developing a recommendation and transfer plan. The goal of deliverable 2.1 is to build an analysis report of the executed plasma donor recruitment and retention strategies throughout Europe.

In this deliverable, we focus on the first phase, which we consider as dynamic throughout the project, as new incentives are rolled out every month. Thus, we will update this database regularly.

Methods

In order to provide an overview of donor recruitment and retention strategies throughout Europe we followed a three-step-approach:

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

First, we aimed to find as much information online as possible via **desk research** in every single EU country as well as other countries of interest (see full list in Table 1).

Table 1: Full country list.

EU COUNTRIES	NON-EU COUNTRIES (EUROPE)	NON-EU COUNTRIES (WORLDWIDE)
Austria	Albania	United States
Belgium	Andorra	China
Bulgaria	Armenia	India
Croatia	Azerbaijan	Australia
Cyprus	Belarus	Canada
Czechia	Bosnia and Herzegovina	
Denmark	Georgia	
Estonia	Iceland	
Finland	Kazakhstan	
France	Liechtenstein	
Germany	Moldova	
Greece	Monaco	
Hungary	Montenegro	
Ireland	North Macedonia	
Italy	Norway	
Latvia	Russia	
Lithuania	San Marino	
Luxembourg	Serbia	
Malta	Switzerland	
Netherlands	Turkey	
Poland	Ukraine	
Portugal	United Kingdom*	
Romania	*England	
Slovakia	*Scotland	
Slovenia	*Wales	
Spain	*North Ireland	
Sweden		

Second, the resulting data set has been enriched with information we obtained via email by **contacting experts** from various blood establishments in several countries. This step was necessary as there are many blood establishments that do not provide information regarding their use of incentives online.

In a third step, we started a **validation process**. To this end, the WP2 and consortium members were asked for suitable contacts in each country that were able

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

to validate the data we identified so far. Each person was contacted individually by email providing the respective country data as well as the request to validate it. Their comments and proposed modifications were then added to ensure the most complete data set possible. We protocolled all feedbacks that we received so far.

The validation process is an ongoing process, as we aim to keep the information as recent as possible and we also try to collect as much information as possible from different sources. See status in Appendix 1 (frequently updated excel document).

Data and Validation Status

In Figure 1, we provide an overview of the data collection across the target regions as well as the current state of the validated countries.

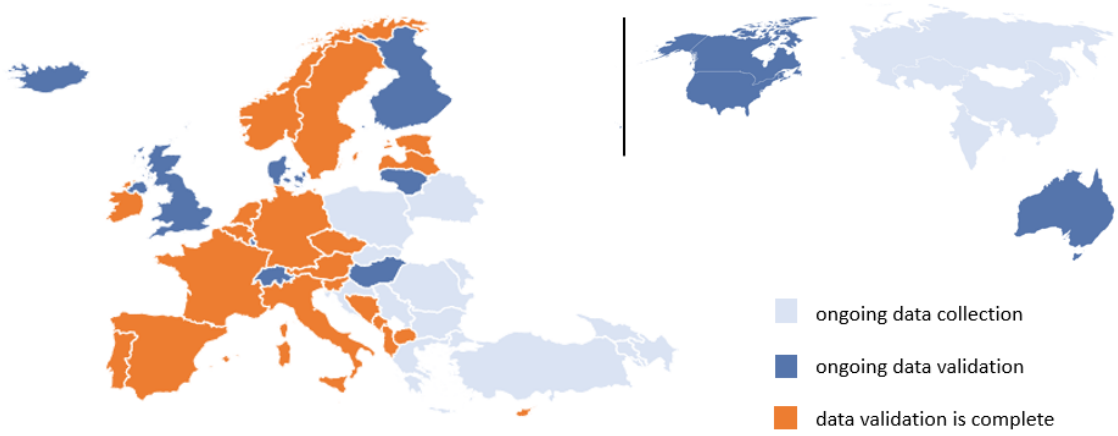

Figure 1: Current status update regarding data validation in EU as well as Non-EU countries.

The data is fully displayed in Appendix 1 and captures general information on the respective blood establishments (e.g., name, city, state, website, etc.) as well as their classification regarding organisation type (company versus hospital) and whether the institution is operating on a profit, non-profit, or state-owned basis. Additionally, detailed information on the different incentives and their use can be found in the following columns. Please find the synthesis of the data in Table 3.

SUPPLY | Co-funded by the European Union

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Results and Discussion

INTERVENTION LADDER

The donation of bodily material is particularly important as it is only available in limited quantities (e.g., organ donation) or/and cannot be produced synthetically (e.g., blood products) (Caplan, 2016; Sarkar, 2008). Remuneration for the donation of bodily material can be used to increase the willingness to donate. However, one must ensure that the incentives for donation are designed in such a way that they are ethically justifiable and that the reasons for donating do not lie in the incentive itself. Therefore, we discuss different incentives for the donation of bodily material (Chkhotua, 2012; Dalal, 2015).

In Nuffield Council on Bioethics (2011), an intervention ladder was developed focusing on different incentives to encourage individuals to donate bodily material. Based on the ladder, six rungs can be distinguished (see Figure 2).

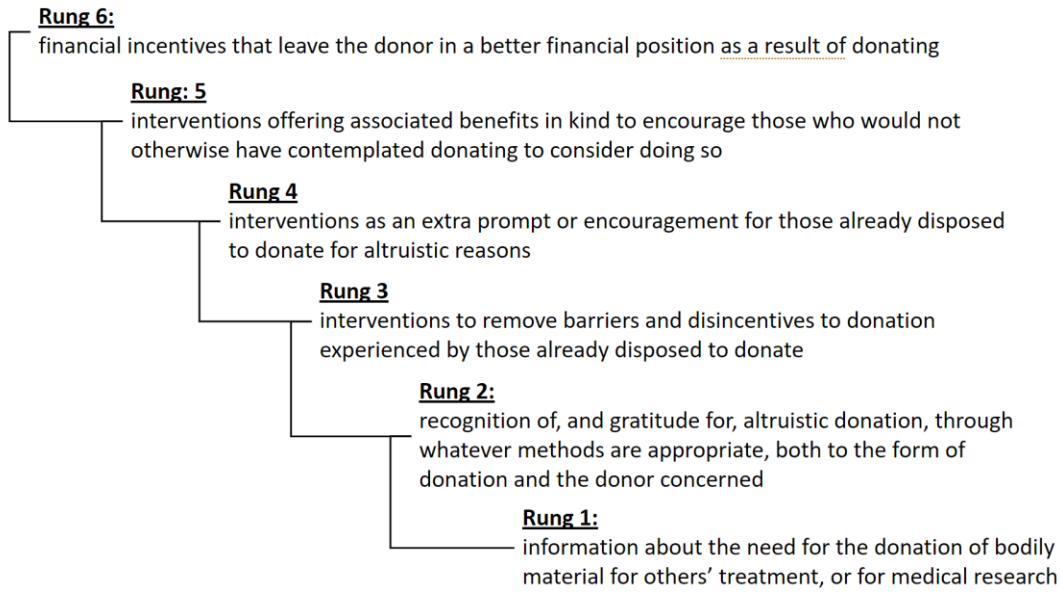

Figure 2: Intervention ladder for promoting donations (based on Nuffield Council on Bioethics (2011)).

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

The incentives ranging from rung 1 to rung 4 are defined as more altruistic interventions, as individuals are rewarded with recognition and thanks for their donation. In contrast, incentives of the rungs 5 and 6 are considered as non-altruistic interventions, as individuals' motivation to donate lies in the attractiveness of the incentives (Strathern & Wright, 2011, p. 192). Since the deliverable involves collecting the incentives used for plasma donation in different countries, we assigned the incentives to the rungs according to Nuffield Council on Bioethics (2011).

Table 2: Exemplary Incentives according to according to Nuffield Council on Bioethics (2011).

Rung	Description	Incentives
Rung 1	Information about the need for the donation of bodily material for others' treatment, or for medical research.	n/a
Rung 2	Recognition of, and gratitude for, altruistic donation, through whatever methods are appropriate, both to the form of donation and the donor concerned.	Snacks Health checks Loyalty program
Rung 3	Interventions to remove barriers and disincentives to donation experienced by those already disposed to donate.	Reimbursement of travel costs Paid day-off
Rung 4	Interventions as an extra prompt or encouragement for those already disposed to donate for altruistic reasons.	Lotteries
Rung 5	Interventions offering associated benefits in kind to encourage those who would not otherwise have contemplated donating to consider doing so.	Referral program Gifts Coupons
Rung 6	Financial incentives that leave the donor in a better financial position as a result of donating.	Financial compensation

INCENTIVES IN THE EU

Table 2 provides a general overview of how plasma donations are rewarded in each country. It should be noted that an incentive is marked in black in Table 2 only if it is used in all establishments in the country (mostly, if a monopolistic market situation

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

occurs). If incentives are only available in single establishments, but not in all, the incentives are marked in grey.

In the first column, we list all EU countries. The second column states whether data about the country was found. We were able to find data for most of the countries listed. If data were available, the following four columns provide information on whether the plasma donations in the respective country are collected by a private, state, or non-profit organization, and whether we observe a monopoly. The last columns provide information about incentives that are used to promote donations in every country. As a result of our investigation, we found several incentives which can be categorized according to the rungs defined in Nuffield Council on Bioethics (2011). The incentives used in EU countries are:

SUPPLY | Co-funded by the European Union

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Tel +32 2 8806216
info@ supply-project.eu
www.supply-project.eu

C/o BLSI
Clos Chapelle-aux-Champs
30 – bte 1.30.30
B-1200 Brussels
Belgium

Table 3: Country overview.

COUNTRY	DATA		MARKET ATTRIBUTES				INCENTIVES[1]										
				Organisation type			Monetary		Non-monetary								
	available	validated	Monopoly	Profit	State	Non-profit	Financial compens.	Amount [€][2]	Referral program	Loyalty program	Snacks	Health check	Lottery	Gifts	Reimburse travel costs	Paid day-off	Coupons
Austria	✓	✓	No	x		x	x	30-35		x	x	x					
Belgium	✓	✓	Yes			x			x	x	x	x		x	x		x
Bulgaria	-	-	-														
Croatia	-	-	-														
Cyprus[3]	-	✓	-														
Czechia	✓	✓	No	x		x	x	30		x	x	x	x	x			x
Denmark	✓	-	Yes		x						x						
Estonia	✓	✓	Yes		x				x	x	x	x	x	x			
Finland	✓	-	Yes			x					x						
France	✓	✓	Yes		x						x			x	x		
Germany	✓	✓	No	x	x	x	x	20-30	x	x	x	x	x	x	x		x
Greece	-	-	-														
Hungary	✓	-	No	x			x	13-26	x	x	x	x	x				x
Ireland[4]	✓	✓	Yes		x												
Italy	✓	✓	No	x	x	x				x	x	x		x		x	
Latvia	✓	✓	Yes		x		x	17			x	x					
Lithuania	✓	-	Yes		x		x	12				x					
Luxembourg	✓	-	Yes			x						x					
Malta[4]	✓	✓	Yes		x												
Netherlands	✓	✓	Yes			x			x	x	x	x		x	x		
Poland	✓	-	Yes		x		x				x	x			x	x	

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Portugal	✓	✓	No		x	x				x	x	x					
Romania	-	-	-														
Slovakia	-	-	-														
Slovenia	✓	✓	Yes		x						x			x			
Spain	✓	✓	No		x					x	x	x	x	x			
Sweden	✓	✓	No			x					x		x	x	x		

[1] Note that only incentives that are used in at least two countries have been included in the overview. [2] Local currencies converted to Euro. [3] No plasma donation program. [4] Currently inactive.

SUPPLY | Co-funded by the European Union

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Tel +32 2 8806216
info@ supply-project.eu
www.supply-project.eu

C/o BLSI
Clos Chapelle-aux-Champs
30 – bte 1.30.30
B-1200 Brussels
Belgium

Based on Table 3, we observe the most important incentives in terms of their usage.

The most used incentives are snacks and free health checks, as an act of gratitude to the donor (Rung 2). In all EU countries that collect plasma donations and in which we were able to validate data, we found that snacks and/or health checks are used (Table 3). Loyalty programs are used in Estonia, Hungary, Italy, Netherlands, and Portugal to increase recurrent donations (please refer to the Appendix 1 for institutional details). Furthermore, small gifts like mugs or bags are used in many investigated countries, i.e., Estonia, France, Italy, Netherlands, Sweden (please refer to the Appendix 1 for details which gifts are used across the BEs).

Incentives according to Rung 3 are used to eliminate barriers for donors, e.g., reimbursement of travel costs and a paid day-off. Travel costs are reimbursed in France, Netherlands, and Poland, a paid day-off from work is granted in Italy and Poland.

Lotteries (Rung 4) are only offered in Hungary and Estonia.

Incentives according to Rung 5, are used to recruit donors who otherwise would not have considered donating, i.e., gifts, referral programs, coupons. Only the Netherlands and Estonia use referral programs in which donors recruit donors. Moreover, gifts can be considered as incentives that are both an act of gratitude (Rung 2) and/or an encouragement to donate for those who would have not considered donating otherwise (Rung 5). Coupons are used in Belgium, Czechia, Germany, and Hungary, but not in all establishments within the country.

There are only a few countries where donors receive financial compensation in general, appealing to non-altruistic motives (Rung 6). These countries are Czechia,

Co-funded by the European Union

This report is part of the project “101056988/SUPPLY” which has received funding from the European Union’s EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Hungary, Latvia, Lithuania. In Germany and Austria, plasma donations are partly renumerated, as some establishments provide financial compensation but not all.

Our investigation shows that there is currently no plasma donation collection by BEs in Cyprus, Ireland, and Malta.

Overall, we conclude that various incentives from Rung 2 to 6 from the intervention ladder in Nuffield Council on Bioethics (2011) are used in EU (and other) countries. Most countries are fully or partly non-remunerated.

In the next phases of WP2, we will evaluate the different incentives for retention and recruitment strategies by gathering information on the outcome of the specific strategies and the incentives used. The evaluation will be based on (1) theoretical reasoning, (2) prior empirical research, (3) continuous experts' feedback, and (4) own empirical tests.

Limitations

Even though we systematically scanned BEs in our target countries, we wish to note two limitations.

First, the database in Appendix 1 is a working document in which we continuously add new BEs and countries. Furthermore, we constantly include experts' feedback from the target countries to ensure the validity and recency of the overview.

Second, we note the possibility that we did not identify all BEs in the target countries. However, the main targets of WP2 are the (1) identification and (2) evaluation of (non-remunerated) incentives across the target countries.

SUPPLY | Co-funded by the European Union

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

Tel +32 2 8806216
info@ supply-project.eu
www.supply-project.eu

C/o BLSI
Clos Chapelle-aux-Champs
30 – bte 1.30.30
B-1200 Brussels
Belgium

Appendix

Appendix 1: Overview of blood establishments and donor recruitment and retention strategies throughout Europe (excel document attached)

Co-funded by the European Union

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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

References

Brussel Times (2023). EU looks to reduce dependency on the US for human plasma needs. Retrieved from https://www.brusselstimes.com/396659/eu-looks-to-reduce-dependency-on-the-us-for-human-plasma-needs [Access: 30th May 2023]

Caplan, A. L. (2016). Finding a solution to the organ shortage. CMAJ: Canadian Medical Association Journal = Journal de l'Association Medicale Canadienne, 188(16), 1182–1183. https://doi.org/10.1503/cmaj.151260

Chkhotua, A. (2012). Incentives for Organ Donation: Pros and Cons. Transplantation Proceedings, 44(6), 1793–1794. https://doi.org/10.1016/j.transproceed.2012.05.038

Dalal, A. R. (2015). Philosophy of organ donation: Review of ethical facets. World Journal of Transplantation, 5(2), 44. https://doi.org/10.5500/wjt.v5.i2.44

McCabe, S. E., Hughes, T. L., Bostwick, W. B., West, B. T., & Boyd, C. J. (2009). Sexual orientation, substance use behaviors and substance dependence in the United States. Addiction, 104(8), 1333–1345. https://doi.org/10.1111/j.1360-0443.2009.02596.x

Nuffield Council on Bioethics (Ed.). (2011). Human bodies: Donation for medicine and research. Nuffield Council on Bioethics.

Sarkar, S. (2008). Artificial blood. Indian Journal of Critical Care Medicine, 12(3), 140–144. https://doi.org/10.4103/0972-5229.43685

Strathern, M., & Wright, K. (2011). Donating bodily material: The Nuffield Council report. Clinical Ethics, 6(4), 191–194. https://doi.org/10.1258/ce.2011.011045

Strengers, P. (2016). Plasma is a Strategic Resource, Transfusion, 56(12), 3133-3137.

This report is part of the project "101056988/SUPPLY" which has received funding from the European Union's EU4Health Programme (2021-2027). The content of this report represents the views of the author only and is his/her sole responsibility; it can not be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) 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