

EFS *at the heart of* SHARING



2016
ANNUAL REPORT



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MANIFESTO

◆ **BLOOD DONATION** has always been a powerful and highly symbolic gesture. Established in France and based on the principles of voluntary participation, non-remuneration, anonymity and non-profitability, **blood donation embodies the values of generosity and solidarity**. It is the first link in an amazing human chain connecting donors to recipients, the sole intention of which is to save lives. Since the practice of modern blood transfusion began, a hundred years ago, it has served as a prime example of what we now call **the sharing economy** in the purest sense of the term.

◆ **CONTEMPORARY AND UNIVERSAL**, blood donation is a fundamental element of **respectful cohabitation**. It has no gender, religion or ancestry. It gathers and unites men and women who are motivated by the sole desire to help those more vulnerable than themselves.

◆ **WITHIN EFS**, 10,000 employees work daily to provide everyone, in metropolitan France and the French overseas departments, with a public transfusion service that is **efficient and innovative**. Collecting the three million donations required each year to cover blood product requirements is a constant challenge for EFS, as well as their daily mission.

◆ **THE WORLD IS CHANGING** and, **in order to appeal to new generations**, our organisation must adapt. An updated collection service with the introduction of modern and vibrant *maisons du don* located in city centres, **digital transformation and personalised relationships with donors**: our aim is to **renew the appeal of blood donation** and offer donors **a unique experience**. A new donation experience.

◆ **THE RELATIONSHIP WITH DONORS** is entering a new phase: new generations, new technology, more social and less medical. **A decidedly human and digital experience**. The uniqueness of this experience is embodied by the EFS brand, now more than ever.

◆ **WE HAVE MOVED FROM** calls for blood donations through communication to the donor experience through relationships and real-life encounters. At the centre of all of these considerations, emotion remains a lasting feature. EFS must be fully invested in this revolution. We must adapt – as the donors are requesting – while protecting our model and the values it enshrines. **Donors will never be customers**. Their role is more important than that, which is why we owe them all the more consideration. We must act as a modern, innovative, public service that views donors as its greatest assets.



“In France, blood is not a business, because the human body is not a commodity.”

**A MESSAGE FROM FRANÇOIS TOUJAS,
PRESIDENT OF EFS**

Blood donation is an unpaid civic act of sharing and solidarity which is based on an ethical model that has demonstrated its efficacy and robustness. The legislation underpinning the current transfusion system has, for many years, prohibited the commercialisation of the human body and guaranteed the same rights for all patients.

The French transfusion model is built on ethical values: voluntary participation, non-remuneration, anonymity and non-profitability. In this respect, it is an exemplary model, replicated by many countries. Every year, it allows EFS to accomplish its mission of blood-product self-sufficiency and meet the needs of a million patients.

In France, EFS is responsible for the collection, processing, screening, and distribution of labile blood products. It is also required to issue the right product to the right patient at the right time, to any location throughout metropolitan France and the French overseas departments.

The daily challenge for EFS and its 10,000 employees is striking a balance between ethical conduct and optimal care of patients who need blood products.

At EFS, we are motivated by a firm belief: our ethical model, reproduced internationally, is a well-established and efficient model which guarantees the safety of donors and recipients alike. We work tirelessly, together with public authorities and our partners, such as the French Voluntary Blood Donors' Association [FFDSB], to be more than just advocates, but fervent ambassadors of this model!

I would like to extend my sincere thanks to all of the donors, volunteers, and men and women who work for EFS, for sustaining and sharing these values, both in their everyday life and in exceptional circumstances. Blood donation is an admirable symbol of respectful cohabitation.

2016

A YEAR DEDICATED
TO SHARING



*Donating blood
is an act of solidarity!*

*Donating blood
is a good deed
that only takes a few minutes!*



HIGHLIGHTS

July 2016

CHANGE IN THE SELECTION CRITERIA FOR BLOOD DONORS

At the end of 2015, Marisol Touraine, the French Minister of Health and Social Affairs, announced that men who have or have had sexual relations with men could now donate blood, under certain conditions. This announcement signalled the lifting of a ban which had been in place since 1984. The order which establishes the selection criteria for blood donors has therefore been modified to include, among other changes, this new provision. Published in the *Official Gazette of the French Republic* on 10 April 2016, this order (and the new conditions for donating blood) came into force on 10 July 2016.

October 2016

A SINGLE DONOR DATABASE

In October 2016, the three EFS establishments in the French overseas departments (Guadeloupe-French Guiana, Martinique and Réunion) switched to the national database, thereby completing the large-scale IT project which began several years earlier. This project, which involved numerous head office and regional employees, provides EFS with a single blood donor database. This unification of medical and technical information systems strengthens EFS' ability to standardise practices and processes, and optimises its capacity for global management with a view to continuously improving quality, safety and efficiency.

March 2016

NEW CURATIVE TRANSFUSION MEDICINE UNIT AT ROBERT-DEBRÉ HOSPITAL, PARIS

Opened in March 2016, this unit receives children with red blood cell disorders (sickle-cell disease and thalassaemia). It is the result of a unique collaboration between Paris Public Hospital Administration [AP-HP] and EFS, which involved pooling their medical, paramedical and technical resources, in order to improve patient care. At this dedicated treatment unit, patients can receive red cell exchanges – essential in the treatment of their conditions – which greatly improves convenience for both patients and their families. With this new site, AP-HP and EFS can monitor and treat more children with sickle-cell disease, a hereditary condition that affects 400 newborns each year, 270 of which in Île-de-France.

April and December 2016

MAISONS DU DON OPEN IN RENNES AND BESANÇON

The Rennes *maison du don* opened its doors in April 2016. Situated at the heart of the city centre, this bright, modern, colourful and user-friendly location offers Bretons the opportunity to enjoy a new donor experience. The aim of the site is also to promote and facilitate plasma donation. The brand new site in Besançon opened its doors to donors in December, offering new reception areas and services, as well as an open-plan layout. 130 blood donors and 55 plasma donors have attended each week to “share their power”.

BLOOD DONATION: KEY FIGURES

Blood donation is a reflection of society: interdependent and responsible. As soon as young people reach adulthood, they are encouraged to participate in this civic act.

1.84

AVERAGE DONATIONS PER DONOR PER YEAR

50%

OF DONORS ARE AGED UNDER 40

31%

OF NEW DONORS ARE AGED 18 OR 19

81%

OF DONATIONS COME FROM MOBILE COLLECTION SESSIONS





1
COLLECTION

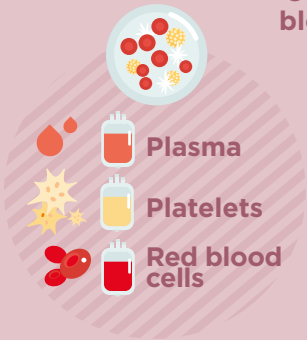


Collected blood bag



Sample tubes

THE JOURNEY OF A BLOOD BAG



2

PROCESSING

Separation of different blood components



Products destroyed in the event of anomaly



Fit for issue products

3

DONATION SCREENING

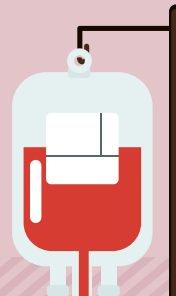
A series of analyses performed on each donation

4

DISTRIBUTION AND ISSUING



5
TRANSFUSION



At the heart of the sharing economy...



In October 2016, EFS changed the focus of its communications aimed at the general public, launching a unique campaign to introduce its new slogan: “Share your power. Give blood”. As we are all used to sharing more of everything nowadays (photos, videos, opinions, accommodation, cars, etc.) through social networks and collaborative sites, blood donation is becoming a natural action, firmly rooted in a new philosophy of peaceful cohabitation. It gives us an invaluable power: saving lives. This campaign is therefore a

Strengthening the role of blood donation in society

method of introducing EFS’ stance on sharing for the “donors” brand and the sharing economy for the “EFS” institutional brand, an economy in which EFS carries out its unique activities.

In the months and years to come, EFS’ aim is simple: strengthen

the role of blood donation in society by renewing the appeal of this powerful act of solidarity among young people and millennials, creating a more emotional, and therefore more sustainable, relationship. ♦

INTERVIEW

“Blood donation stems from the concept of consumption”

The sharing economy and blood donation as viewed by philosopher and psychoanalyst Cynthia Fleury, author of numerous publications and essays, including *Les Irremplaçables*, [The Irreplaceables] published in 2015.

In your opinion, what is the role of sharing in our society?

CYNTHIA FLEURY: Sharing takes very different forms: true sharing in the ethical sense of the term, more creative forms of combining usage and property, the economy of improvisation – this type of innovation is called *jugaad* – faced with an unstable environment, the awareness of *shared*, common goods, the necessity to defend inappropriable public goods and preserve fair access to these goods, slightly surer ecological sense, etc.

Car-sharing or house-swapping is becoming increasingly common. Have we really entered an era of sharing-based economics?

C.F.: We are in an era of usage, mobility and connectivity. Material goods are combined with immaterial goods in the definition of wealth. What matters, for individuals, is the sense that they have multiple choices of possible lives, that the future is not set in stone and that it is open in terms of upward social mobility and quality of life. Despite the fact that neo-liberalism and its reductionist view of the individual, dominated by short-term economic interest, are as prominent as ever, critical, alternative lifestyles and governance methods are also on the increase. These methods rely heavily on cooperation, sharing, collective intelligence, experimentation, disintermediation or local distribution channels.

What is the role of blood donation in this sharing economy?

C.F.: Blood donation, as it is practised in France, stems from the economy of commodification of living organisms, as well as the concept of consumption. It is a voluntary action, generally performed with awareness of its usefulness and to demonstrate one's solidarity, although many other motivations may also be at play. Personal history – experience of illness, for example – is also highly significant.

How can we update the donation experience in a society that is undergoing a complete revolution, via digital technology, the Internet and social networking sites?

C.F.: In today's world, the donation experience is often linked to social networking sites. However, let's not misinterpret this fact. Donation requires concrete involvement, a very real, non-virtual, commitment. That is its irreducible aspect. The link to others is non-negotiable, like the experience of the donation relationship itself.



**CYNTHIA
FLEURY,**
PHILOSOPHER,
PSYCHOANALYST
AND AUTHOR

... And digital transformation!

In September 2016, EFS unveiled its new digital approach with two websites, one dedicated to EFS and news about the organisation, and the other to blood donation.

efs.sante.fr provides information about EFS missions, its history, its various activities and human resources policy, whereas **dondesang.efs.sante.fr**, aimed at blood donors and those who want to learn about donation, provides all the practical information needed to make a blood donation (where and when to donate, different types of donations, contraindications, FAQs, etc.).

EFS has also strengthened its presence on social networks e.g. changing the tone of its Facebook, Twitter and LinkedIn accounts in order to encourage more conversations with blood donors and stakeholders.

What is the next step in this digital transformation initiative? A personalised area for each donor on the public site and a new mobile app. Because despite the fact that the act of donation will never be virtual, the future of blood donation will inevitably involve digital technology! ●



OPERATION MISSING TYPE EFS REMOVES THE LETTERS A, B AND O

In June 2017, EFS launched the #MissingType campaign in France. Introduced in the United Kingdom by NHS Blood and Transplant, in 2015, and reproduced in many other European countries, the aim of this campaign is to make people aware of the importance of blood groups and the need for blood donation. It is based on an unusual concept: asking brands, companies and organisations to drop the letters A, B and O from their logo. On World Blood Donor Day 2017, numerous companies took part: HOP!, Uber, Decathlon, Kiabi, La Poste, Look Voyages, Ferrero, Volkswagen, and many more.



World Blood Donor Day

*Blood donation
around the world*

108 MILLION DONATIONS are collected each year worldwide.

50% OF DONATIONS are collected in high-income countries.

In **62 COUNTRIES**, voluntary donors provide **100%** of the supply.

Every year, on 14 June, EFS participates in World Blood Donor Day (WBDD). This event is a way of thanking donors for their impressive commitment. Established by the World Health Organization in 2004, this day is celebrated in many countries around the world.

As part of the event, special collection events are organised throughout metropolitan France and in the French overseas departments. In order to publicise WBDD and appeal to a wide audience, a major media plan (TV, radio, print media, Internet) is implemented each year.

In 2016, WBDD was once again a success, producing excellent results:

- **21,768** prospective donors
- **18,621** donations
- **2,728** new donors (i.e. 12.5%)
- **917** media hits. ●

KEY DATES



1917

A doctor named **Émile Jeanbrau** performs the first blood transfusion using sodium citrate as an anticoagulant.



1928

A doctor named **Arnault Tzanck** opens the first blood transfusion centre at Saint-Antoine Hospital in Paris. The centre performs **262 transfusions in 1929** and over **35,000** twenty years later.

2016

SHARING IN THE FIELD

*Donating
as part of a group
is really motivating.*



I often talk to friends, and family, about donating blood

HIGHLIGHTS

Early 2016

IN RESPONSE TO THE ZIKA VIRUS EPIDEMIC, EFS PUTS SAFETY MEASURES IN PLACE

In early 2016, the rapid progression of the Zika virus epidemic in the French Antilles and French Guiana led EFS to implement a series of measures in order to avoid any risk of the virus being transmitted through blood products – even though this risk has not yet been established. Consequently, as of 4 January 2016, pregnant women residing in French overseas departments who required a red blood cell concentrates transfusion received products sourced from metropolitan France. Additionally, as of mid-February 2016, all donations collected in the French Antilles underwent Zika screening, performed by EFS' expert laboratory in Marseilles. Finally, prospective donors in metropolitan France and Réunion returning from an area where the Zika virus is present are subject to a 28-day temporary contraindication.

July 2016

FOLLOWING THE NICE ATTACK, EFS'S ENGAGEMENT WAS RECOGNISED

Following the attack which took place in the city of Nice on the evening of 14 July 2016, numerous French government ministries (Health and Social Affairs; Work, Employment, Professional Training and Social Dialogue; Family, Children and Women's Rights) addressed a message of thanks to public healthcare institutions, and EFS employees in particular. They praised the teams' responsiveness, commitment and engagement which enabled the necessary blood products to be issued to the region's healthcare institutions within a very short space of time. Watch the testimony of EFS employees and hospital practitioners following the attacks of November 2015 and July 2016.

www.youtube.com/watch?v=m18MJgZNIWQ

Safety and quality: top priorities

An image which has been used often, but remains the best illustration of transfusion safety is that of a chain linking the blood donor to the blood product recipient, in which every single link must be of equal strength. That is why, at each stage in the process from collection to issuing, EFS has implemented specific procedures which comply with a strict regulatory framework and incorporate several levels of controls. An internal auditing body monitors compliance with regulations, separately from the inspections carried out by the French National Agency for Medicines and Health Products Safety [ANSM], EFS' supervisory authority. Each new measure undergoes a study phase in order to ensure that it does not downgrade any safety indicators. In 2016, EFS completed the pilot phase for the "pre-donation" interview conducted by nurses prior to donation. This interview, previously conducted exclusively by doctors, was piloted in almost 8% of collections, before eventually being authorised and implemented in routine by the decree of 10 March 2017. Another key measure, the introduction of blood donation, under certain conditions, for men who have or have had sexual relations with men, effective since 10 July 2016, was supported by numerous French and international studies.

PROTECTING DONORS AND RECIPIENTS

One of the fundamental steps in transfusion safety is the pre-donation interview. This interview is designed to ensure, by means of a specific questionnaire, that the donation will not pose a health risk to the donor or the recipient. Donation screening, which comprises a series of immunohaematological and microbiological tests performed systematically for each collection, then confirms that the donation is actually suitable for use in a transfusion.

In an effort to continuously improve safety and quality, in 2016 EFS published its own Hygiene Guide, which includes all contamination and infec-

tion prevention measures and is aimed at all regional establishments. Videos and tutorials are also available to help staff apply these measures correctly. EFS has also completely updated the donor selection guidelines and will continue to improve it each year, to facilitate its use by staff conducting the pre-donation interview.

REGULAR AUDITS

Within the more general context of its new risk and quality management system, the renewal of ISO 9001 multi-site certification shows that EFS is firmly committed to the process of continuous improvement. Indeed, this standard requires regular audits, which drives improvement. Every year, the 150 immunohaematology/issuing services that

are responsible for 80% of blood products issuing in France are subject to a mandatory accreditation process with regard to their laboratory activities. Finally, the haemovigilance network, based on more than 1500 contacts points within and outside EFS, ensures that any event that warrant the introduction of new improvement measures do not go unnoticed.

CLINICAL STUDIES

EFS also participates in clinical studies, which help to improve donor and recipient safety, as well as knowledge of pathologies which require transfusions. ●

*Non-remuneration,
voluntary participation,
anonymity and non-profitability*

The founding values of blood donation in France play a vital role in transfusion safety. Examples from other countries show the relevance of the French model in this regard. Lithuania, which decided to authorise remunerated donation, has just reverted to the former system: positive infectious markers, which reveal quality and safety flaws, had become far more common than in a system based on unpaid donation.



Important:

THE DONOR EXPERIENCE

begins upon arrival at the collection site, whether this is a permanent site or a mobile unit. It is punctuated by opportunities for sharing with EFS staff and other donors.

Maisons du don: open house

- REPORT FROM BESANÇON WHERE EFS OPENED ITS MAISON DU DON IN DECEMBER 2016 ● FOCUS ON A NEW GENERATION SITE
- REDESIGNED SPACE TO ENCOURAGE SHARING, SELFIE BOX...
- EFS REINVENTS THE DONOR EXPERIENCE ●

W e are just a few metres away from the hospital, but there are no patients here. This is a separate space, linked but not limited to the medical world. Charlotte, a trainee nurse, has an apt way to describe this distinctiveness: *“It is the donors who are going to treat people. EFS staff play an intermediary role.”* Every day, an average of 25 donations are made here, including seven plasma donations and four platelet donations.

RECEPTION

Prospective blood donors have two options: make an appointment or drop in at the *maison du don*. Upon arrival, a member of the reception staff will explain the different steps and issue donors with a pre-donation questionnaire, to be completed in the waiting room. In this well-lit room, a screen shows videos about donation; nearby is a table on which

children’s games are arranged. Dr Odile Striby, head of collections at the *maison du don*, explains that *“the presence of children encourages a donation culture. Many parents who choose to bring their children along treat the process as a learning experience.”* When they reach adulthood, these children will also be inclined to become donors. This is one way of preparing for the next generation.

PRE-DONATION INTERVIEW

The pre-donation interview is a key step in ensuring transfusion safety. Its aim: to evaluate eligibility to donation. Until two years ago, doctors were the only staff members authorised to interview prospective donors. This is no longer the case. Indeed, a pilot programme* allowed volunteer nurses, who had undergone specific training, to conduct these interviews. This was the case for Vincent Vanhuffel, who is delighted with his >>>



>>> new responsibility. “It all runs smoothly. And in any case, the doctor is always on hand. If I have any doubts, I call the doctor and they make the decision.”

It takes a few minutes to take the prospective donor’s blood pressure, check the questionnaire and ask additional questions. At this stage, 92% of individuals are declared eligible to donate.

COLLECTION

The collection duration is variable: 10 minutes for whole blood, approximately 40 minutes for plasma and 1 hour 20 minutes for platelets. Collection no longer takes place in small individual cubicles. Donors are now welcomed into a spacious, well-lit room. This new layout improves safety: it is easy for doctors and nurses to constantly monitor the entire

Nurses are attending to the donors, everyone is smiling, the atmosphere is calm

KEY DATES



1940

Karl Landsteiner, who discovered the ABO blood group system several years earlier, and his associate Alexander Wiener, identify the Rhesus factor, named after the rhesus macaque used in experiments. Transfusions are becoming safer and safer for recipients.

1949

Arnault Tzanck establishes the National Blood Transfusion Centre [Centre national de transfusion sanguine - CNTS] in Paris. The first mobile collection session is organised in the same year, to meet the plasma needs of workers burnt by the explosion of their factory.



collection process, with a single glance. This afternoon, sitting on the armchairs arranged in a large circle, we find Éric, a 58-year-old mechanic, 29-year-old Benoît, 19-year-old students Camille and Julie, and a young mother with her baby. Nurses are attending to the donors. Everyone is smiling and the atmosphere is calm and pleasant. Donor anonymity

does not mean that the relationship is depersonalised. On the contrary! The open-plan layout encourages interaction. Jules, a 24-year-old student: “The team is great. I always bring my book, just in case, but I never need it because the atmosphere is so friendly!” A nurse highlights another advantage of the open-plan layout: “Sometimes people can

be nervous about sitting for an hour with a needle in their arm. When they see their neighbour is still chatting and smiling... It’s reassuring and makes people want to sign up for plasma and platelet donation.»

REFRESHMENTS AND A WELL-EARNED BREAK

With bandages around their arm, the donors are now heading towards the refreshment area. There they spend around 15 minutes resting and recuperating, under the supervision of EFS staff.

INTERVIEW

“Blood donation is an integral part of citizenship”

Why are the ethical values of blood donation necessary?

MICHEL MONSELLIER: The ethical donation system, as practised in France, is the only system that can attempt to be self-sufficient. Truly altruistic and interdependent, it allows everyone's needs to be met and prevents any form of discrimination, particularly on the basis of wealth.

What is the link between blood donation and citizenship?

M.M.: Donation is possible from the age of 18, the age when one is also legally entitled to vote and obtain a driving licence. In this respect, blood donation is an integral part of citizenship. That being said, some people are not able to donate, as they do not satisfy the medical criteria. It goes without saying that this doesn't make these individuals lesser citizens!

based collection. As far as young people are concerned, they are generous: the rates of participation at collection sessions organised in universities, for example, are very high.

What is the role of volunteers and donor associations for EFS?

M.M.: Our 3000 community-based associations are vital resources when it comes to publicising and promoting donation. Reality shows that, without these associations, collection sessions would be less effective. The associations are familiar with the donors, know how to approach them and take responsibility for promoting donation and recruiting and retaining donors.

How can we encourage French citizens, and young people in particular, to donate more?

M.M.: Regardless of who they are, it is necessary to reach out to people to encourage them to donate. Hence the importance of community-



MICHEL MONSELLIER,
PRESIDENT OF THE
FRENCH VOLUNTARY
BLOOD DONORS'
ASSOCIATION

Sonia welcomes them with a smile and a wide variety of snacks, fruit and pastries. She bustles about, making sure that everyone is recovering well. “It’s a very pleasant area. I always take a few minutes to talk to the donors.”

Nearby, something attracts my attention: it’s the selfie box, one of the temporary activities to help maintain the atmosphere. Blood donation is also undergoing a digital transformation... Laurie Oliveira, communication manager for EFS Bourgogne Franche-Comté, is delighted: “The donors take a photo, usually several, while joking around. They collect it at the kiosk, then share it on social networking sites. It’s a huge hit! Through the process of reinvention, the donor experience is becoming more digital and more human.” To celebrate its launch, the *maison du don* arranged an interactive and artistic sound exhibition. This will be followed by other events.

After they have made their donation, donors are asked about the meaning of their action. The majority are slightly confused. They rarely ask themselves this question. For them, their civic involvement is self-evident. On reflection, their first donation may have been motivated by a family tradition or after a loved one was affected by a health problem. Others made the decision as part of a group, within their company, and arrived in one of the shuttles organised by EFS. As Benoît explains, very satisfied with how his first donation went, “a few minutes of my time, it doesn’t take much effort, but it can be extremely useful. It took me a while to get around to it, but I’ll keep on doing it... Excellent, I’ll definitely be back again!” ●

Activities to maintain the atmosphere

*The nurse-led pre-donation interview was implemented in routine across the organisation by a decree published in the *Official Gazette of the French Republic* on 10 March 2017.

A strong local presence

- 40,000 MOBILE COLLECTION SESSIONS PER YEAR ● PARTNERSHIPS WITH PUBLIC AND PRIVATE STAKEHOLDERS ● SUPPORT FROM VOLUNTARY BLOOD DONORS' ASSOCIATIONS AND ORGANISATIONS ●

An activist gesture for some, blood donation is a matter of opportunity for most French people: without having participated in an activity which is rooted in their customs, they are aware of the usefulness of the gesture and respond without hesitation when given the opportunity. For this reason, in the interest of creating a fair balance between efficiency and proximity, EFS is increasing its partnerships with local authorities, high schools, universities, higher education establishments, businesses and public bodies to organise

collection sessions throughout the country, closer to potential donors. With its 128 fixed sites and thousands of mobile collection sessions, EFS provides a collection service which is adapted to suit each individual's lifestyle, whether they live in an urban or rural setting.

A COLLECTIVE, COMMUNAL EXPERIENCE

A room used for weddings at the town hall, a village sports hall, a public square where a mobile collection unit can be set up... Often arranged with the support of voluntary blood donors' associations or

organisations that are strongly dedicated to the cause, such as Rotary, mobile collection sessions are major events within local communities. EFS teams and volunteers work together to provide a warm welcome, a controlled waiting system and a comfortable space; the perfect conditions for a completely positive experience and a strong emotional bond with donors. A collective pause, a moment to yourself while helping others, that makes you want to donate again. ♦

INTERVIEW

What's our secret? A balanced partnership."



JEAN-CLAUDE BROCARD
FOUNDER OF THE
MON SANG POUR LES AUTRES
[MY BLOOD FOR OTHERS]
INITIATIVE

United by a partnership agreement designed to promote blood donation, every year EFS and Rotary organise *Mon sang pour les autres* [My Blood for Others], Europe's largest collection session, held at the Capitole, in Toulouse. Interview with Jean-Claude Brocart, the event coordinator who founded the initiative in 1998.

What were the results of the collection session held in Toulouse in 2016?

JEAN-CLAUDE BROCARD: With 3274 prospective donors and 2496 donations collected

over the course of three days, we set a new record. Most importantly, 28% were new donors and 48% were young donors, aged between 18 and 24. That is a major achievement.

What's the secret to this success?

J.-C.B.: First and foremost, the quality of the partnership with EFS, with whom we jointly organise this amazing event. EFS provides expertise and logistics in relation to collection and Rotary offers organisational, marketing and communications experience. The collection session is also a fun event which is held in a busy area of the city centre. Its

success is also due to the way in which attendees are welcomed. Over 400 volunteers are assembled to welcome donors and recruit new ones, by going into the streets and raising awareness of the importance of blood donation.

How has this concept evolved?

J.-C.B.: It has expanded considerably. Every year, Rotary organises 120 blood collection sessions in over a hundred cities throughout France and dozens of others worldwide, especially in French-speaking Africa.

HR and CSR policy: turning commitment into action

- THE VITALITY OF SOCIAL DIALOGUE • RESULTS OF THE DISABILITY POLICY • THE THIRD SOCIAL BAROMETER • ADOPTION OF THE FIRST MINISTERIAL EXEMPLARY ADMINISTRATION PLAN •



In terms of its social and societal commitment, EFS is developing actions that are consistent with its civic role. This “*active ethics*” in favour of environmental protection, professional equality and the occupational well-being of its 9800 employees is particularly demonstrated by the vitality of the social dialogue within the organisation.

AN OPEN AND PRODUCTIVE SOCIAL DIALOGUE

In 2016, this vitality was demonstrated through the signature of seven new agreements, several of which signal significant progress. The agreement regarding strenuous physical work helped to produce the single administrative document for occupational hazard prevention as required by law. The

signatures of four representative union organisations is testament to its quality: extending well beyond the legal thresholds, this agreement will enable EFS to focus its capacity thanks to a standardised risk scoring method. At regional level, several agreements extended the mandates of employee representatives, in order to optimise the election schedule and return to a single professional electoral cycle for the whole EFS.

At the end of the year, another agreement arranged for new recruits to become members of the Agirc-Arrco supplementary pension system, in accordance with the French government’s plan to reconcile pension systems. The vitality of this social dialogue is also evidenced by the 12 negotiation sessions on the sensitive subject of the consolidation of working time rules, called for by the President of EFS. These sessions led to an agreement which was signed by three representative union organisations on 14 March 2017.

DAILY EFFORTS TO IMPROVE THE QUALITY OF LIKE AT WORK

These collective negotiations complement the ceaseless daily efforts to turn EFS’ commitments into realities. In its 10 years of existence, the disability policy has helped double the employment rate of disabled people, now firmly established at 7% of the workforce. Renewed in 2014, the agree- >>>



KEY DATE

1950

Inspired by Arnault Tzanck, the French Voluntary Blood Donors’ Association (FFDSB) is established. Since then, it has campaigned to ensure that blood donation is unpaid, voluntary and anonymous. The FFDSB is now EFS’ preferred partner.

SHARED VALUES

The President of EFS wanted the organisation to have a vision and four fundamental values that embody EFS to guide the daily actions of employees. These four values are:

Public service

Using our skills, tools, and business lines to meet patients' needs, donor

and partner expectations, and healthcare challenges. Serving the public interest and guaranteeing the safety of everyone.

Respect

Working together, listening and maintaining a dialogue with our partners, and collaborating with our colleagues throughout the

country. Respecting the diversity of patients, donors, and our staff.

Excellence

Completing our daily work with excellence, applying our business line, managerial, and technical skills, encouraging the development of knowledge and talent, and pursuing our research efforts.

Efficiency

Respecting the act of donation by controlling production costs for blood products. Being agile at organisational level, using the best resources to support our priorities.

>>> ment on social cohesion and equal opportunities continues to be reflected in the regular recruitment of people over 55, who are particularly well represented within the organisation. This agreement also maintains the strict pay equity between men and women, at equivalent hierarchical level, whilst allowing numerous adjustments to working hours, primarily to allow employees to cope with the challenges of parenthood. These efforts have also enabled the publication of the third social barometer, used to develop an action plan focused on staff priorities. This provides, in particular, for the rapid deployment of the new employment and skills management planning tools, which have been in preparation since 2015. The use of a specific guideline for 140 jobs will soon increase the number of pathways between positions and regions, promoting mobility, training and skills development.

A steering committee will ensure that good practices are circulated

EFS' membership of the Sustainable Development Club for Public Establishments and Enterprises, which led to the signature of the Sustainable Development Charter for Public Establishments and Enterprises

in 2011. Thanks to a specific guideline, shared by all public bodies, the PMAE has enabled a comprehensive review of actions already implemented, in all regions and across all sites, and the establishment of new ambitious and realistic objectives to be achieved by 2020.

A governing body was established to oversee the key actions in support of sustainable development scheduled in 2017, namely the implementation of the action plan resulting from the report on greenhouse gas emissions, eco-driving, improved waste sorting and waste life cycle management, energy consumption management and development of sustainable purchasing. ♦

THE YEAR OF THE MINISTERIAL EXEMPLARY ADMINISTRATION PLAN (PMAE)

The highlight of 2016 for EFS was the establishment of the Ministerial Exemplary Administration Plan (PMAE). This plan follows on from



KEY DATE

1952

The first law on blood transfusion is passed. It specifies that: "Blood and its derivatives are not medicinal products and they do not constitute a commercial good as they originate from the human body." It governs the organisation of transfusion in France until 1993.



EFS: PARTNER OF THE RIO PARALYMPIC GAMES

In order to affirm its commitment to the social integration of disabled people, EFS supported the *Gagnons Rio* [Let's win Rio] initiative, organised by the French federation for disability sport [*Fédération française handisport*] during the Paralympic Games in Brazil in September 2016.

EFS demonstrated its support for the French Paralympic team by organising numerous events for its employees. In September, a conference was held at EFS head office at which Aladji Ba, a blind sprinter who won bronze medals in the Paralympic Games in Athens and Sydney, and his sighted guide Denis Auger, joined us to discuss overcoming disability and building a successful sporting career. Additionally, disability sports workshops aimed at disability coordinators from all of the regional establishments and head office employees were organised on the esplanade at the Stade de France.

KEY ACTIONS IN SUPPORT OF SUSTAINABLE DEVELOPMENT SCHEDULED IN 2017



Implementation of the action plan resulting from the 2015 greenhouse gas emissions report.



Implementation of eco-driving training.



Development of an expert energy management system (EEMS).



Reduction of the number of cold rooms by centralising plasma stock.



Improvement of waste management and product end-of-life management.



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EFS: *much more than blood* **DONATION**

2016 ANNUAL REPORT



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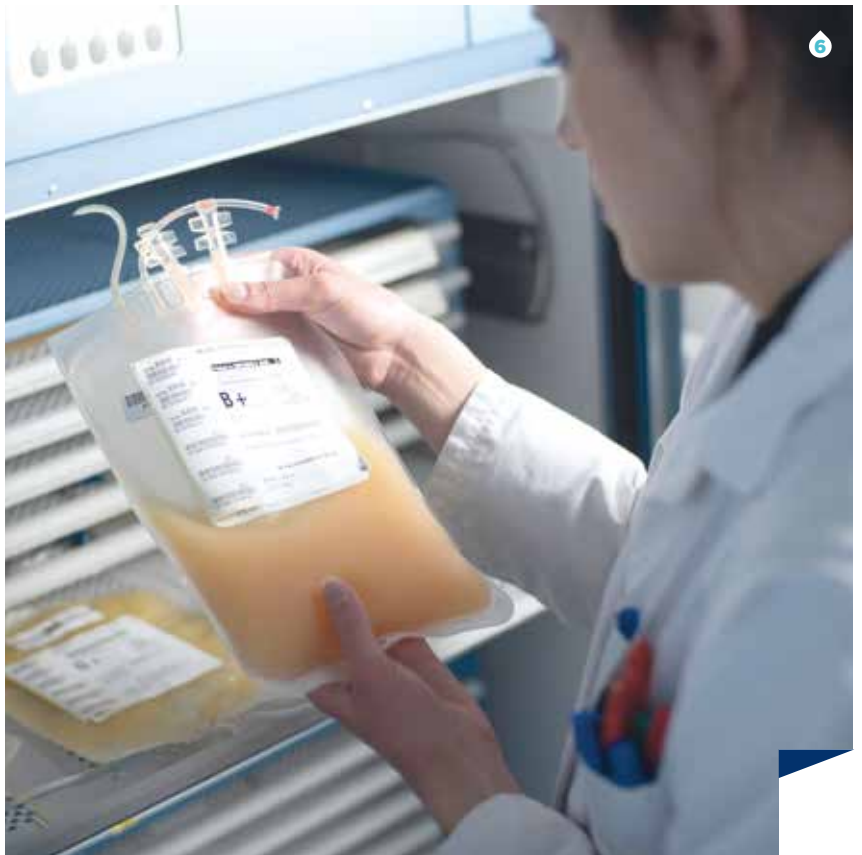


Proof in pictures

- MEDICAL BIOLOGY, RESEARCH AND INNOVATION, PROMOTION OF THE FRENCH TRANSFUSION SYSTEM ABROAD, ETC.
 - EFS: MUCH MORE THAN BLOOD DONATION
- OVERVIEW OF THE ORGANISATION'S ACTIVITIES LINKED TO BLOOD TRANSFUSION ●



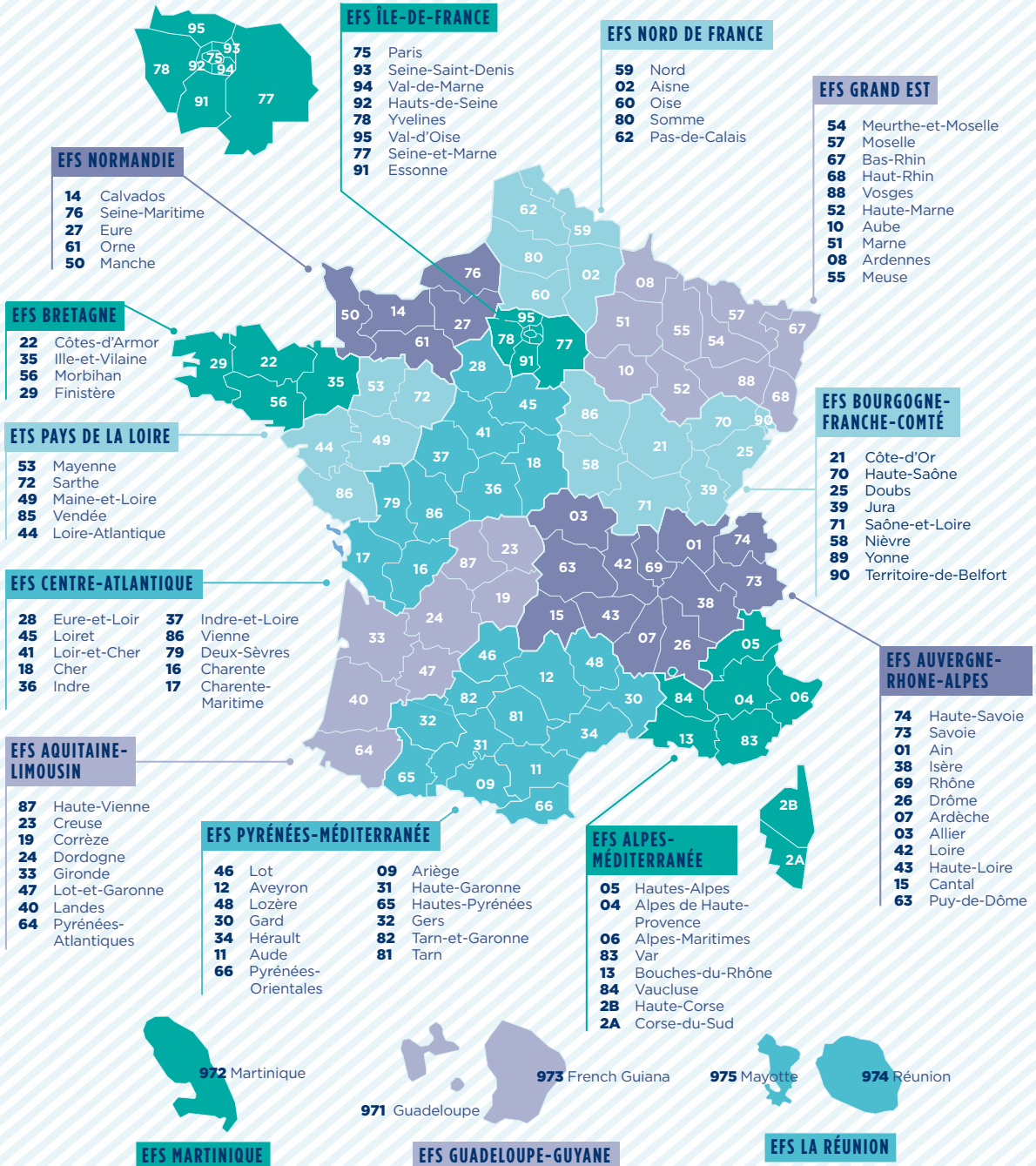
- 1 Donation screening platform, in Angers, France
- 2 Advanced therapy medicinal products (ATMP) production platform, in Toulouse
- 3 Dakar blood transfusion centre, in Senegal
- 4 Reagent production, in Nantes
- 5 Blood product processing platform in Rhône-Alpes
- 6 Distribution site, in Paris (Georges-Pompidou European Hospital)



EFS WITHIN THE FRENCH HEALTH SYSTEM

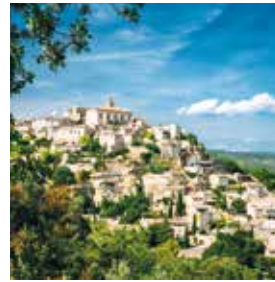


EFS REGIONS MAP



At the heart of regions

● A DAILY PRESENCE WITHIN REGIONS ●
A NEW STRUCTURE THAT WORKS MORE CLOSELY WITH REGIONS
TO BETTER FULFIL ITS PUBLIC SERVICE MISSION ● STRENGTHENED
COOPERATION WITH REGIONAL HEALTH AGENCIES ●



Collecting the three million donations required annually in France to ensure national self-sufficiency, processing and screening donations, supplying labile blood products to 1500 public and private healthcare institutions across the country, as well as performing immunohaematological analyses for recipients, advising healthcare professionals on the use of blood products, processing and supplying tissue and cell products, and participating in health surveillance, among other activities. As the sole public transfusion service and a key stakeholder in the French public health system, EFS maintains a daily presence at the heart of regions. A civic act, by virtue of the unpaid nature of the gesture, and a creator of social bonds, blood donation is a fundamental element of peaceful cohabitation, a powerful symbol of community life and an instrument of solidarity through the participation, among other things, of elected individuals and associations, in the organisation of collection sessions. As an important intermediary for haemovigilance reports, EFS also plays a fundamental role in health safety at local and national level.

ADAPTATION TO IMPROVE SERVICE

In order to ensure its activities reflect regional needs more closely, EFS has, in recent years, committed to an in-depth structural reform which resulted in the creation of two new establishments on 1 January 2016: ETS [EFS regional establishment] Grand Est, the product of a merger between ETS Alsace, ETS Lorraine-Champagne and the departments of Marne and Ardennes; ETS Auvergne-Rhône-Alpes, the product of a merger between ETS Rhône-Alpes and ETS Auvergne-Loire. With the number of EFS regional establishments having decreased from 17 to 15 in 2016, there will be just 13 remaining as of 1 January 2018, due to new mergers that are currently under way. There are many objectives of this restructure. Firstly, to increase efficiency and enhance safety for donors and recipients alike, by improved standardisation of facilities, practices and operating procedures. Secondly, to balance the scope of establishments in terms of population in order to achieve the “critical mass” required to secure the financial stability of each establishment. This new organisation, which more closely resem-

bles the new regional map established by the NOTRe (new territorial organisation of the French Republic) law, will also help strengthen links with regional health agencies, both in relation to interface issues with healthcare institutions and in the context of vigilance systems reform.

INCREASING EFFORTS IN FRENCH OVERSEAS DEPARTMENTS

Work has also begun in French overseas departments, in partnership with EFS regional establishments. The challenge: to support the activities of EFS regional establishments by strengthening, in particular, the collection capacity in Martinique and Guadeloupe, with a view to gradually achieving blood product self-sufficiency, which has only been achieved in Réunion to date. ●

INTERVIEW

“A vital link in the haemovigilance chain”

The Director of Auvergne-Rhône-Alpes Regional Health Agency, Dr Jean-Yves Grall, discusses the links between EFS and French Regional Health Agencies (ARS).

What is EFS' role in the regional health system?

JEAN-YVES GRALL: Each regional health agency, together with the regional haemovigilance coordinator and the EFS haemovigilance contact person, identifies the healthcare institutions that require access to blood products. As these institutions must respond to a life-threatening transfusion emergency in less than 30 minutes, the conditions for transporting blood products must be clearly defined. The regional network of transfusion sites and blood banks is therefore essential.

To what extent is EFS a recognised player, particularly in relation to haemovigilance?

J.-Y. G.: From blood collection to recipient follow-up, EFS is a vital link in the haemovigilance chain, a system based on three levels. National level, with the French National Agency for Medicines and Health Products Safety (ANSM) which implements the system and deals with adverse reactions or serious adverse event reports. Regional level, with the regional haemovigilance coordinator who, together with the managing director of the regional health agency, is responsible for monitoring the implementation of the provisions and decisions of ANSM. Local level, via the haemovigilance contact persons from the 15 EFS regional establishments and those based in healthcare institutions, who are responsible for reporting any events experienced by donors or recipients.

How might the vigilance reform affect EFS' position in relation to the regional health system?

J.-Y. G.: The French health law of January 2016 allows major improvements to be made to vigilance and the management of serious adverse events. The aim is to facilitate and promote reporting, develop the involvement of healthcare professionals and

improve regional organisation of health safety. These objectives involve coordinating the collection of reports, arranging a health safety meeting to coordinate investigations and local management measures. This also includes the creation of a regional vigilance and support network [RREVA] to coordinate the activities of organisations involved in developing healthcare quality and safety.

What are the relationships between regional health agencies and EFS?

J.-Y. G.: EFS works closely with the regional haemovigilance coordinator and the various services of the Regional Health Agency within the context of haemovigilance and transfusion safety. They also work with the security and defence service with regard to health emergency management: football matches, risks of attack etc. The organisation is also invited to regional health safety meetings that are organised and coordinated by the Regional Health Agency. This partnership is becoming stronger over time.



JEAN-YVES GRALL
DIRECTOR OF
AUVERGNE-RHÔNE-
ALPES REGIONAL
HEALTH AGENCY

EFS, France's largest biomedical laboratory

- 15 BIOMEDICAL ANALYSIS LABORATORIES, IN 126 REGIONAL SITES, PERFORMED OVER 500 MILLION PROCEDURES IN 2016
- EFS CARRIES OUT THE VAST MAJORITY OF BIOLOGICAL TESTING WHICH IS ESSENTIAL FOR TRANSFUSIONS OR TRANSPLANTS ●



2016, A PIVOTAL YEAR FOR HLA LABORATORIES AND ISSUING

The Next Generation Sequencing (NGS) technique has been implemented in eight pilot HLA laboratories. This new approach is truly revolutionary in terms of voluntary bone marrow donor and patient typing. In 2017, all regions are expected to benefit from this innovation.

In 2016, EFS also faced the introduction of competition in the therapeutic plasma market. Thanks to strategic planning conducted in advance and the creation of a customer relations and marketing department, this critical event was successfully anticipated and negotiated, ensuring we respond more effectively to our customers' expectations.

A VARIETY OF BIOLOGICAL ACTIVITIES

Many biological activities are performed in EFS laboratories, all of which relate to the safety of transfusions and transplants, or are used to monitor immunised pregnant women.

With 126 biomedical analysis sites and more than 500 million biological procedures performed in 2016 (immunohaematology, histocompatibility and haematology testing, etc.), EFS is the leading French provider of biomedical services in relation to transfusions and transplants. EFS carries out routine tests (blood grouping, screening for irregular antibodies) as well as other procedures involving highly sophisticated techniques for at-risk patients. This biological expertise complements EFS' experience regarding transfusion advice, issuing blood products to patients, and transplant advice (organs and haematopoietic stem cells) for healthcare professionals. EFS biomed-

ical analysis laboratories are also involved in managing public money and health economy: the organisation is committed to eliminating unnecessary tests (if some patient results are already known) and providing electronic data exchange.



KEY DATE

1993

The French laws of 4 January 1993 establish a new organisation to ensure the safety of blood donors and recipients during donations and transfusions. The French government wants to encourage donation to save as many lives as possible and avoid shortages.

HIGHLIGHT

October 2016

MANAGEMENT DAY DEDICATED TO BIOLOGY, PRODUCT ISSUING AND TRANSFUSION ADVICE

At the first event of its kind, held in October 2016, EFS brought together numerous biologists in managerial roles in order to provide an overview of daily practices and suggest approaches for standardising and improving practices. Over 200 individuals were given the opportunity to discuss subjects as diverse as the evolution and appeal of the biologist occupation, the immunohaematology/issuing link, improvement of efficiency, development of expertise, transfusion advice, etc. Action plans were put forward with the aim of strengthening biology and transfusion medicine. These plans should be implemented over the coming months.

Erythrocyte immunohaematology

This is a branch of immunology dedicated to the study of red blood cells and, in particular, the ABO, rhesus and Kell blood groups... Blood group testing is performed for any individuals who require a transfusion or surgical procedure, and in the case of pregnancy. Complex immunohaematology testing is offered in EFS laboratories: specific direct antiglobulin testing, screening and identification of complex anti-erythrocyte antibodies, elution and adsorption testing, erythrocyte genotype testing, etc.

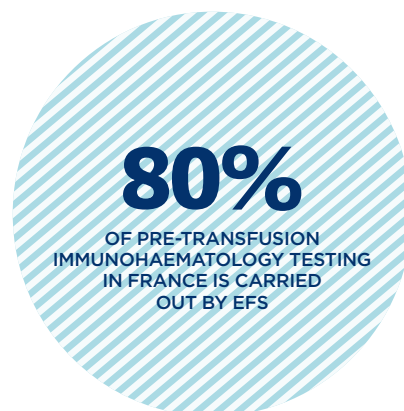
Platelet immunology

This branch of immunology focuses on platelets and, in particular, the Human Platelet Antigen (HPA) system. Platelet

immunology techniques are used if there is a decrease in platelet count (immune-mediated or non-immune-mediated thrombocytopenia) and to help clinicians in the event of transfusion inefficacy.

Immunogenetics and histocompatibility

Immunogenetics is the branch of science that explores the role of genes and genetic factors in immune mechanisms and defence against infections. Histocompatibility examines the compatibility between donors' organs, tissues or cells and recipients' profiles; this helps to prevent transplant rejection. This compatibility depends on the genetic make-up of the donor and the recipient,



and is based on the HLA system in particular. EFS sites are actively involved in the HLA-typing of voluntary bone marrow donors. These laboratories also offer molecular biology diagnostics by studying susceptibility to certain pathologies (HLA and disease).

Granulocyte immunology

The study of the immunity of white blood cells is referred to as “granulocyte immunology”. This discipline, which covers numerous tests, is used in various pathologies such as autoimmune neutropenia of children and adults, neonatal neutropenia due to foetal-maternal alloimmunisation, exploratory testing in cases of post-transfusion reactions and screening for antibodies in certain patients who present with transfusion-related acute lung injury (TRALI).

Cellular immunology

This branch of immunology is intended to improve the characterisation of immune reactions induced by certain blood cells, primarily lymphocytes, and contribute to the diagnosis of certain conditions. ●



Research and innovation for today and tomorrow

- SAFER BLOOD PRODUCTS AND CELL THERAPY ●
- A RESEARCH AND INNOVATION STRATEGY IN LINE WITH ISSUING ACTIVITY ●
- JOINT SUPERVISION OF FUNDAMENTAL OR APPLIED RESEARCH LABORATORIES ●

Every year, EFS performs more than 500 million biomedical testing procedures and issues more than three million therapeutic products derived from the human body. In order to ensure that the quality of the diagnostic and therapeutic procedures provided by laboratories can be improved and adapted in line with technological and economic developments, EFS is implementing a policy of research, innovation, training, knowledge dissemination, and technology transfer and development. Research and innovation are now fully incorporated into the organisation's missions and are treated with priority, which will guarantee the future of a discipline specific to EFS: transfusion medicine.

DIVERSITY OF RESEARCH

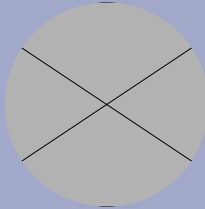
EFS research teams cover an extensive range of research areas: public health, infectious diseases

and microbiology, immunology, regenerative medicine, ethics, health economy, etc. This research is also combined with active scientific literature monitoring, particularly in the areas of emerging or re-emerging diseases, and new risks related to transfusions and transplants. Research teams within EFS apply a fundamental approach within the context of medical practice which will directly benefit from a transfer to applied research, which also covers clinical research.

These three areas are developed in synergy, with a view to improving the diagnostic process – particularly in the context of infectious diseases – and the characterisation of blood products (blood group genotype, HLA genotype, etc.). It is for this reason that research and innovation are integral aspects of EFS' mission, consistent with its biomedical laboratory services and the issuing of substances of human origin. >>>

HIGHLIGHTS

March 2016 A NEW RESEARCH LABORATORY IN CRÉTEIL



EFS and the Paris-Est Creteil Val-de-Marne University (UPEC) have created a new research space, the Felix Reyes building, in the grounds of Henri-Mondor University Hospital. The two establishments, already linked by a partnership agreement signed in 2013, pooled their financial and human resources to pursue a shared research policy. This new space is a resource for the scientific work carried out by the multidisciplinary and mixed teams (Inserm/UPEC-EFS/ National Veterinary School of Alfort) which benefit from practical facilities and reliable equipment. Two research teams, jointly supervised by EFS, UPEC and Inserm, are based at the Mondor Institute of Biomedical Research (IMRB): one directed by Prof. France Pirenne, elected this year as president of the French Society of Blood Transfusion [*Société Française de Transfusion Sanguine* – SFTS], and the other directed by Prof. Frédéric Relaix and contributed to by Dr Hélène Rouard, one of whom's projects was selected for European Union funding in 2016.

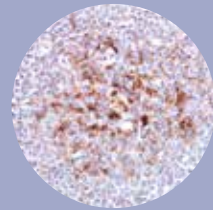
October 2016 ADVANCES IN CELLULAR “MICRO-PHARMACY”

International collaborative research involving a team from Inserm, the Université Rennes 1 and EFS, and directed by Prof. Karin Tarte shows that the use of modified immune cells allows the specific targeting and destruction of the cells of some forms of lymphoma. In 2016 the team demonstrated that modified cells can also be used to insert a molecule with antitumour properties into the tumour. This research introduces the concept of cellular “micro-pharmacy”.

November 2016 ESTABLISHMENT OF THE SCIENTIFIC ADVISORY BOARD

The Scientific Advisory Board, which first met in November 2016, is appointed to give opinions on medical, scientific, and technical issues that affect the research activities of EFS. The Board is involved in defining the blood transfusion research policy and assessing research programmes conducted by EFS. It meets three times per year. The Scientific Advisory Board can also help EFS to develop a road map to prepare the organisation for future challenges and innovations.

December 2016 A TEST TO DETECT THE AGENT OF VARIANT CREUTZFELDT-JAKOB DISEASE



In 2016, the research team comprising EFS, Inserm, and the University of Montpellier, in partnership with the French national reference centre for prion diseases and English researchers, developed a biological test which is able to detect the prion molecule responsible for Variant Creutzfeldt-Jakob disease (vCJD) in the blood. Based on a method which involves concentrating and amplifying the prion protein in its anomalous form, this test, developed by Dr Joliette Coste and her colleagues, has a diagnostic specificity and sensitivity of 100%. It also shows that the pathogenic agent can be detected in blood one to two years before the onset of disease symptoms. This test can now be used to differentiate vCJD more clearly from other forms of CJD and, in particular, the sporadic form. The test also makes it possible to assess the efficacy of prion removal or inactivation methods.

INTERVIEW

“Improving the quality and efficiency of research”

Interview with Prof. Isabelle Durand-Zaleski, Head of the Public Health Department (Albert-Chenevier Henri-Mondor hospital group) and President of EFS Scientific Advisory Board.

EFS Scientific Advisory Board was established in 2016. What is its role?

ISABELLE DURAND-ZALESKI: It monitors the compatibility of research into transfusion medicine with its medical and scientific environment, taking account of current and future issues within this field. Indeed, EFS should highlight – in addition to its responsibility as a public service provider – its role as a stakeholder in research, as well as its efforts to harness research-based innovation.

The Scientific Advisory Board will contribute to improving the quality and efficiency of research: resources allocated on the basis of results, visibility and relevance in relation to missions.

What role did the French government play in its implementation?

I.D.-Z.: The missions of the Scientific Advisory Board were established by the French Health Minister: defining priorities in EFS’ strategic research policy and evaluating the establishment’s research programmes. The ten Board members were also appointed by the Health Minister. The President of EFS may refer cases to the Board for review and it can also examine cases on its own initiative regarding any medical, scientific or technical issue that affects transfusion quality or safety.

What were its first actions?

I.D.-Z.: In 2016, the Scientific Advisory Board put together an analysis of EFS’ scientific policy: introduction of teams and subjects, review of past calls for proposals (themes, results, publications, communications, budgets) and the assessment of the French High Council for Evaluation of Research and Higher Education [*Haut Conseil de l’évaluation de la recherche et de l’enseignement supérieur* – Hcéres].

In 2017, the study of collaborations and partnerships with teams from Scientific and Technological Public Organisations, universities and university hospitals will serve as the main focus for the Scientific Advisory Board. A discussion will also be held with the French General Directorate for Health regarding EFS’ position in the world of research.

**ISABELLE
DURAND-ZALESKI**
PRESIDENT OF EFS
SCIENTIFIC ADVISORY
BOARD

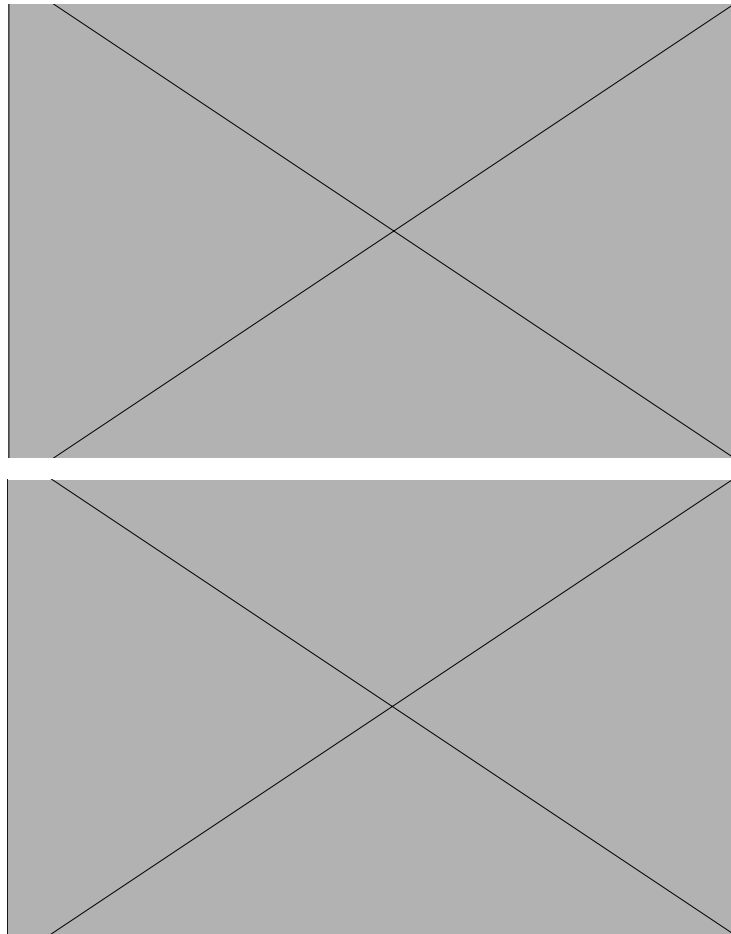
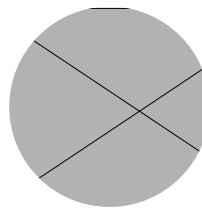
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ADAPTING TO FUTURE NEEDS

In order to ensure the organisation remains at the forefront of its field of expertise and adapts to the changing needs for substances of human origin, EFS supports and contributes to the activities of laboratories specialising in fundamental research into blood components and, more specifically, cell components (platelets and red blood cells). Haematopoietic and mesenchymal stem cells are also a key focus for EFS activities. In future years, the demand for substances of human origin may have to adapt to new requirements, specifically in relation to regenerative medicine. Through strategic choices and the adaptation of research axes, EFS has substantial means of responding to the challenges of transfusion medicine, transplant activities, and increasingly personalised cell therapy. By following good manufacturing practices for products used in advanced therapies, EFS is extending its efforts to maintain a high level of safety for recipients.

PARTNERSHIPS WITH SCIENTIFIC AND TECHNOLOGICAL PUBLIC ORGANISATIONS AND UNIVERSITIES

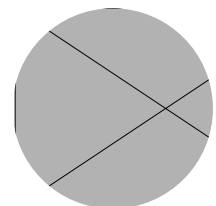
With an overall budget of 23 million euros, of which 13 million is the organisation's own share, EFS funds research from its own budget. This research benefits from partnerships with public, scientific, and technical research establishments (French National Centre for Scientific Research [*Centre National de la Recherche Scientifique* - CNRS], Inserm), hospitals and universities. Indeed, joint supervision is standard practice in all teams. With regard to funding, the researchers also respond to national calls for tender (French National Research Agency [*Agence Nationale de la Recherche* - ANR], Alliances, etc.) and those issued by European research programmes. Finally, the funding of research at EFS is partly linked to the use of registered patents. EFS has an extensive portfolio and the use of these patents is based on licences. The areas covered are the fields of therapy (cell and tissue), medical devices and the improvement of labile blood product manufacturing processes. The research teams represent 164 full-time equivalent positions in 19 teams distributed across nearly all EFS regional establishments. On 31 December 2016, the patent portfolio contained 35 patent families. In 2016, six new priority patent applications were registered and two non-exclusive licences were granted to industrial partners. The patent families are mostly related to therapies, particularly cell and tissue therapy, medical devices, and the improvement of labile blood product manufacturing processes. ●

**KEY DATES****2000**

Under the French law of 1 July 1998 relating to stricter supervision and safety of healthcare products, EFS is established on 1 January 2000. Under the authority of the French Ministry of Health, EFS is the only public blood transfusion service in France.

2004

The World Health Organization (WHO) creates World Blood Donor Day (WBDD) to promote voluntary blood donation and pay tribute to individuals who save lives by giving blood. In France, this event has been coordinated by EFS since 2006.



Wider involvement of EFS

Important:

EFS is a leader in the national cell and tissue therapy products market

TISSUES AND CELLS: EXCELLENCE AND GROWTH

Although cord blood activity remained stable in 2016, there was a marked increase in the use of EFS' cell and tissue banks.

In 2016, EFS continued with its efforts to reorganise cord blood banks, in agreement with the French Agency of Biomedicine. EFS limited collection to help develop greater expertise and raise the selection criteria in order to offer better quality cord blood. The cord blood units have a higher stem cell content and are better equipped to compete with new haploidentical transplant techniques (from intrafamilial peripheral stem cells or bone marrow).

In 2016, there was a marked increase in the activities of cell and tissue banks. EFS secured key markets in the field of cell therapy (Institut Curie in Paris). Activity increased by 3.1% for autologous peripheral haematopoietic stem cells (HSC), 5.9% for allogeneic peripheral HSC and 14.6% for mononuclear cells (autologous mononuclear cells for extracorporeal photochemotherapy). New protocols were established to develop autologous and allogeneic stem cell transplant activity.

Tissue bank activity increased significantly during 2016 in relation to bone tissue (23% increase for femur heads and bone with viral inactivation) and ophthalmic tissue: corneas, amniotic membrane (10% increase).

HEALTH CARE CENTRES IN LINE WITH NEEDS

The purpose of the 76 EFS health care centres, located within 12 regional establishments, is to provide healthcare that is regulated and limited to certain, very specific procedures (bloodletting, apheresis, etc.).

The number of transfusions, stem cell collection and plasma exchange activities remained stable in 2016. There was also an increase in bloodletting procedures due to earlier screening of patients with haemochromatosis and improved provision of information to doctors.

The procedures that experienced the highest increase in frequency during the last 12 months were red cells exchanges and photochemotherapy. Red cells exchanges are indicated as a preventive or curative measure for individuals affected with the severe form of sickle cell disease, whilst photochemotherapy is used in the prevention of graft-versus-host disease (GvHD) in allotransplant patients.

The health care centres also take part in clinical studies (One Study protocol, Plasma SEP study, Predictor 007 study, Cryostem study) in collaboration with industry

and hospital stakeholders. They contribute by collecting haematopoietic stem cells, which are then reinjected into patients.

KEY DATE

2009

On 19 April 2009 the age limit for blood donation was raised from 65 to 70 years old. However, only whole blood donation is authorised after the age of 65. As a matter of course, after the age of 60, donation is subject to the approval of an EFS doctor.

125

REAGENTS PRODUCED
BY THE EFS REAGENT
PRODUCTION UNIT.

REAGENT PRODUCTION: ECONOMIC EFFICACY AND AUTONOMY

Established in 2004, the EFS reagent production unit (RPU) manufactures and sells in vitro diagnostic medical devices. The RPU, present at six sites, complies with European regulations and meets EFS needs for reagents. The reagents are produced from in-house supplies of human blood, which affords the RPU a degree of autonomy regardless of the type of testing equipment that is used. 125 reagents are produced in this way and can be used in the majority of automated laboratory equipment used by EFS. The majority of reagents – Simonin for ABO groups, screening panels, identification panel, internal quality control, etc. – have CE marking and undergo strict quality control.

The EFS in-house manufacturing process also enables standardisation, streamlining and an uninterrupted supply of diagnostic devices used in the 15 EFS regional establishments. Due to the significant volume of reagents manufactured, improved productivity and a sales price that does not include a profit margin, external sales to biomedical analysis laboratories and hospitals generated a turnover of 3 million euros in 2016. This figure is comparable to that of internal transfers. ●

France, a model to follow

- 14 EXISTING COOPERATION AGREEMENTS ACROSS FOUR CONTINENTS ●
- KNOWLEDGE SHARING ● 9 UNIVERSITY-LEVEL OR CONTINUOUS TRAINING MODULES ● ADDRESSES BY 16 SPEAKERS AT FIVE CONFERENCES AND SEMINARS IN 2016 ● 10 TRAINEES AND 6 DELEGATIONS HOSTED ●

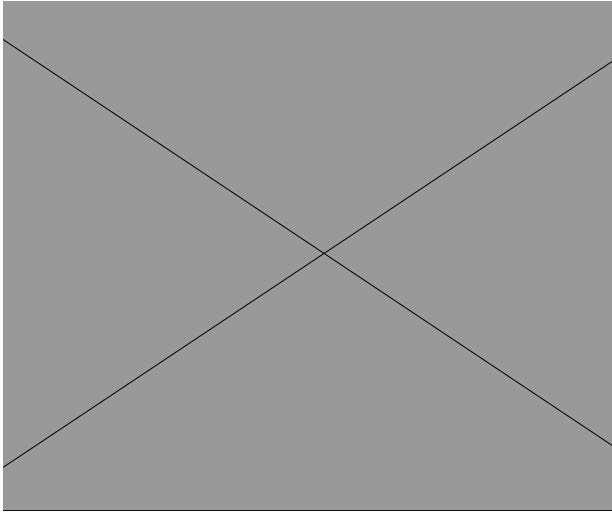
Promoting the French system means contributing to its global outreach.

In 2016, Colombia joined the list of countries with which, from Brazil to Benin, via China and Iran, EFS has signed a cooperation agreement. As set out in the French Public Health Code, the international mission of EFS is to contribute, within the context of a long-term partnership, to the improvement of transfusion systems throughout the world, using the French blood donation system as a model. The French model is based on ethical donation, the key

to a national system which is recognised for its medical, technical, administrative and organisational expertise. There are numerous challenges: increasing blood product self-sufficiency, enhancing product quality and transfusion safety and, wherever possible, improving access to bone marrow transplantation. Its purpose is also to respond to France's global health strategic priorities and meet the 2030 sustainable development goals: enabling

EUROPEAN ACTIONS: WIN-WIN PARTNERSHIPS

An interlocutor for the French General Directorate for Health and the Delegation for European and International Affairs on issues related to blood transfusion and a member of the Council of Europe's European Committee on Blood Transfusion, EFS is also a major stakeholder in the European Blood Alliance (EBA), an association of establishments that promote unpaid donation and non-profit-making in blood transfusion. As a network which provides mutual assistance on a daily basis and shares good practices to increase efficiency in the long term, the EBA shared 26 surveys with its members in 2016. Six of these surveys were an initiative from EFS. One survey in particular dealt with the reception of people who are deaf at collection centres. Another helped obtain a timely solution in response to a shortage of supply of syphilis screening tests. Other highlights include EFS hosting the working group on quality on 13 and 14 September 2016, and helping to finalise common proposals within the context of future European Directives on blood products.



Dakar National Blood Transfusion Centre, Senegal

all to live in good health, promoting accessible, sustainable and high-quality health systems, improving health safety at international level, pursuing the fight against communicable diseases and promoting the fight against emerging diseases, as well as strengthening France's appeal and influence. Promoting the French system means contributing to its global outreach.

AN EXTENDED OFFER OF SUPPORT

Qualifying or continuous training initiatives, assistance with the promotion of blood donation, marketing tools for recruiting and retaining donors, medical and biological advice regarding blood product processing, donation screening, immuno-haematology or haemovigilance, support with infrastructure development, hosting trainees or delegations, scientific participation in conferences and congresses, etc. From medical to organisational expertise, the support of EFS can take various forms, depending on the needs and requirements of the country.

The organisation's aim is not to impose its own model, but instead to adapt it, taking into account specific features and local realities. This internally unifying commitment, based on sharing, gives rise to informative discussions: EFS also learns about good practices in cooperating countries. >>>

HIGHLIGHT

March 2016

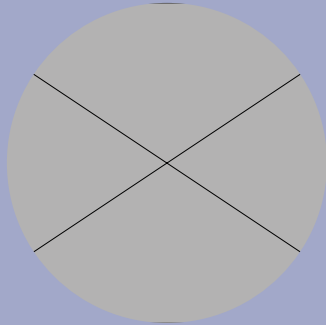
EFS AND THE FRENCH DEVELOPMENT AGENCY (AFD) IN CONFERENCE TO IMPROVE THE TRANSFUSION NETWORK IN FRENCH-SPEAKING AFRICA

In March 2016, EFS and the French Development Agency organised a conference at the EFS head office entitled "Blood transfusion in French-speaking Africa". This unique event united 12 French-speaking African countries (Benin, Burkina Faso, Cameroon, Congo, Guinea, Morocco, Mauritania, Niger, Senegal, Togo, Tunisia, Ivory Coast), with the WHO AFRO representative and experts from the French Development Agency and EFS. On the agenda: self-sufficiency and transfusion safety, ethics, methods of funding blood transfusion, challenges encountered. This conference provided an opportunity to identify approaches to improve practices, develop skills and facilitate the pooling of resources for all transfusion activities, at a time when there are common issues.

READ ABOUT THE CONFERENCE PROCEEDINGS HERE:

www.efs.sante.fr/sites/instit/files/EFS%20COLLOQUE%202016_vD.pdf

HIGHLIGHT



December 2016

SIGNING A MEMORANDUM OF UNDERSTANDING WITH COLOMBIA

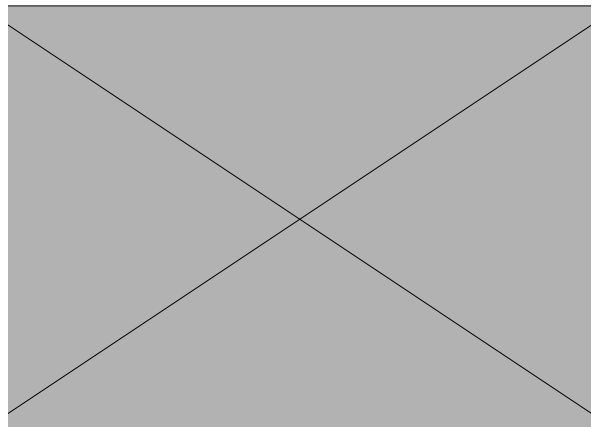
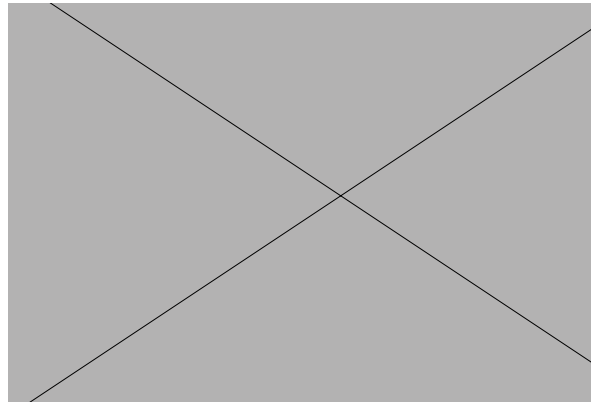
In December 2016, François Toujas, President of EFS, and Alejandro Gaviria Uribe, the Colombian Minister of Health and Social Protection, signed a three-year memorandum of understanding which was witnessed by the French ambassador in Bogotá. Upon the occasion of the launch of France-Colombia Year by Jean-Marc Ayrault, the French Minister of Foreign Affairs and International Development and Enrique Peñalosa Londoño, the mayor of Bogotá, the purpose of this agreement is to formalise the collaboration between France and Colombia towards the practice of safe and modern blood transfusion. Colombia has welcomed this partnership, motivated by EFS' ability to promote the equality of all in relation to access to high quality healthcare and to support the transition from replacement donation to unpaid, altruistic, voluntary donation.

>>>

SUSTAINED COOPERATION

As they do each year, EFS experts worked to sustain this cooperation in the Middle East, Africa and South America in 2016. The highlights of this year include EFS hosting students from Burkina Faso in Île-de-France preparing a university degree in transfusion medicine; the support provided to Lebanon as it participated in World Blood Donor Day for the first time; talks given at the "Ethics, self-sufficiency and transfusion safety" seminar in Quito (Ecuador), and at the First National Blood Transfusion Congress held in Mohammedia, Morocco. A major conference involving the countries of French-speaking Africa (*see sidebar p.19*) was also held in Paris and organised in partnership with the French Development Agency. The aim of these activities is to ensure that safer blood transfusion becomes a requirement, all over the world. ♦

Blood donors in Belém, Brazil



INTERVIEW

“Donor numbers are increasing year upon year”

Professor Saliou Diop is the Director of the National Blood Transfusion Centre in Dakar. He discusses the transfusion experience in Senegal.

What is the current state of affairs regarding blood transfusion in Senegal?

S.D.: The National Blood Transfusion Centre in Dakar coordinates and manages the supply of blood bags and reagents to around 20 facilities throughout the country. Donations, which increase by 10 to 15% each year, doubled between 2006 and 2016. Donations are systematically screened and, although replacement donation still exists in some areas, over 80% of donations are voluntary and unpaid. Despite these advances, we are not self-sufficient: with an average of 6.5 donations per 1000 inhabitants, we are still a long way off achieving the WHO recommendation of 10 donations per 1000 inhabitants.

What are the main developments that have taken place in recent years?

S.D.: Having our Ministry of Health and Social Affairs, and all stakeholders in the health system acknowledge the need for better coordination was a major victory in 2006. We have made great strides in terms of organisation, thanks in particular to the support we received from EFS. The safety and availability of products have also been improved. We are now able to process blood components ourselves.

How do Senegal and France work together in relation to blood transfusion?

S.D.: The transfusion centre in Dakar, built during the Second World War, is the oldest in West Africa. Until the 2000s, we received support from French volunteers. They helped us implement HIV screening at a very early stage. Today, the prevalence of the virus in the Senegalese population is just 0.7%. This support continues to this day, through the Global Fund and the French Development Agency. The French Development Agency is involved in the initiative to improve maternal and child health care, to which EFS contributes by providing technical advice regarding the establishment of a transfusion centre in Louga and two facilities in Casamance.

What are the terms of the collaboration with EFS?

S.D.: Our partnership was formally established by an agreement in 2015. It covers advice related to improving the organisation of our transfusion system, sharing good practices, and training. EFS experts were involved in developing the content of the first university-based blood transfusion degree in French-speaking Africa. This course has been offered by the Université Cheikh-Anta-Diop in Dakar since 2016 and EFS experts have coordinated two teaching modules. In 2016, 13 students were enrolled on the course, 7 of whom were from other African countries.

What are your thoughts on EFS and the French transfusion system?

S.D.: I am impressed by their determination, and their capacity for reinvention and adaptation in response to new medical and technical challenges, such as cell therapy.

SALIOU DIOP
DIRECTOR OF THE
NATIONAL BLOOD
TRANSFUSION CENTRE
IN DAKAR

Organisational Chart

as of 1 May 2017

RESPONSIBLE PERSON FOR LBP AND TISSUES/CELLS
Prof. Pierre TIBERGHEN

RESPONSIBLE PHARMACIST FOR ATMP
AND RESPONSIBLE PERSON FOR HOSPITAL EXEMPTION ATMP
Dr Anne FIALAIRE-LEGENDRE

CENTRAL ACCOUNTING OFFICE
Franck BLETTERY

GENERAL ECONOMIC AND
FINANCIAL CONTROL
Alain BOURDELAT

CHIEF SECURITY
AND DEFENCE OFFICER
Thierry BAUDONET

REGIONAL ESTABLISHMENT (ETS) DIRECTORS

ETS Alpes - Méditerranée
Prof. Jacques CHIARONI

ETS Grand Est
Dr Christian GACHET

ETS Aquitaine - Limousin
Dr Azzedine ASSAL

ETS Pays de la Loire
Dr Frédéric DEHAUT

ETS Bretagne
Prof. Gilbert SEMANA

ETS Centre - Atlantique
Dr Frédéric DEHAUT

ETS Guadeloupe - French Guyana
Dr Françoise MAIRE

ETS Île-de-France
Dr Rachid DJOUDI

EFS La Réunion
Dr Hervé RENARD

ETS Martinique
Dr Françoise MAIRE
(Acting)

EFS Nord de France
Dr Rémi COURBIL

ETS Normandie
Dr Rémi COURBIL

ETS Bourgogne-
Franche-Comté
Dr Pascal MOREL

ETS Pyrénées-
Méditerranée
Dr Francis ROUBINET

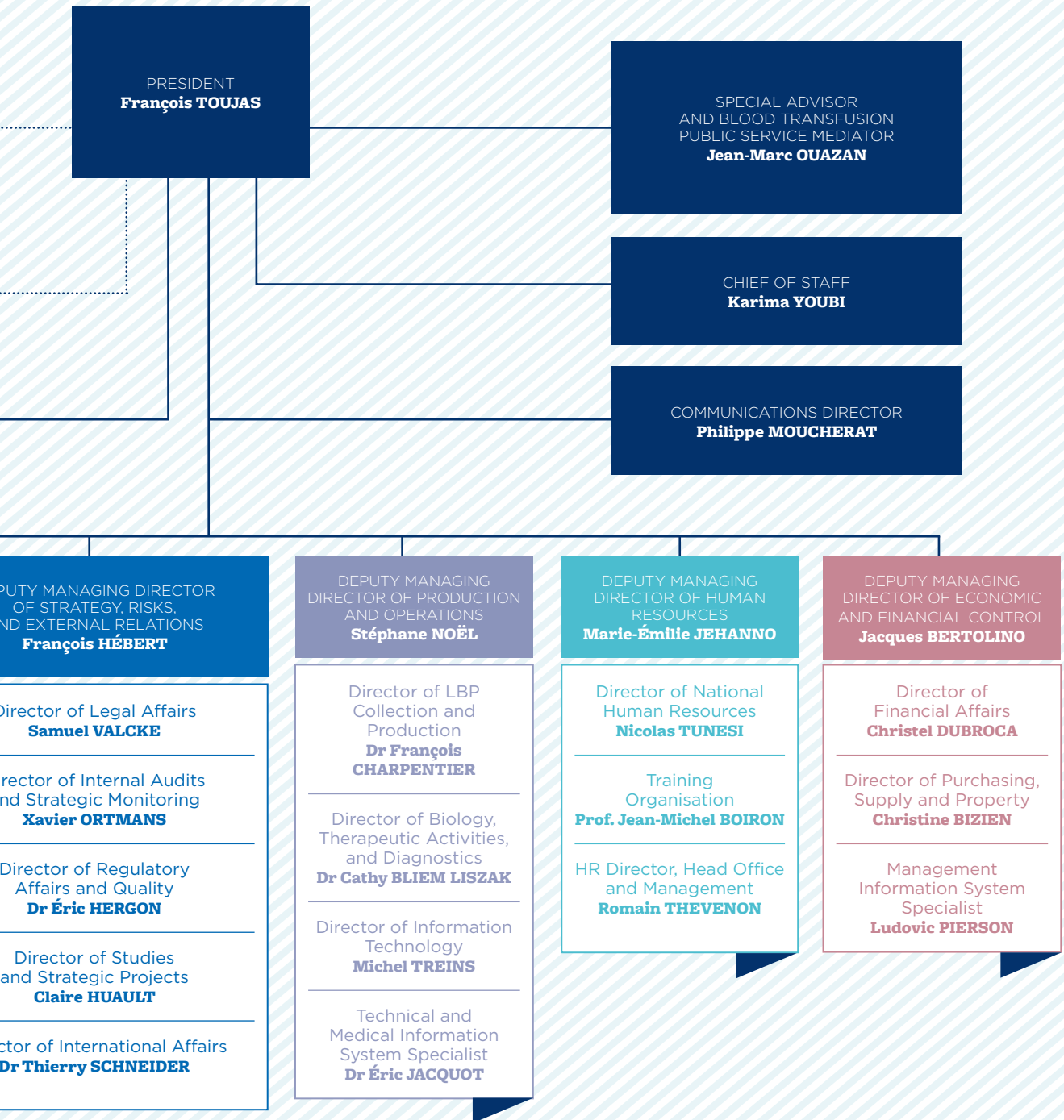
ETS Auvergne-
Rhône-Alpes
Dr Dominique LEGRAND

DEPUTY MANAGING
DIRECTOR OF
MEDICINE, RESEARCH,
AND INNOVATION
Prof. Pierre TIBERGHEN

Medical Director
Dr Sylvie GROSS

Director
of Research
and Technology
Transfer
**Prof. Jean-Christophe
PAGES**

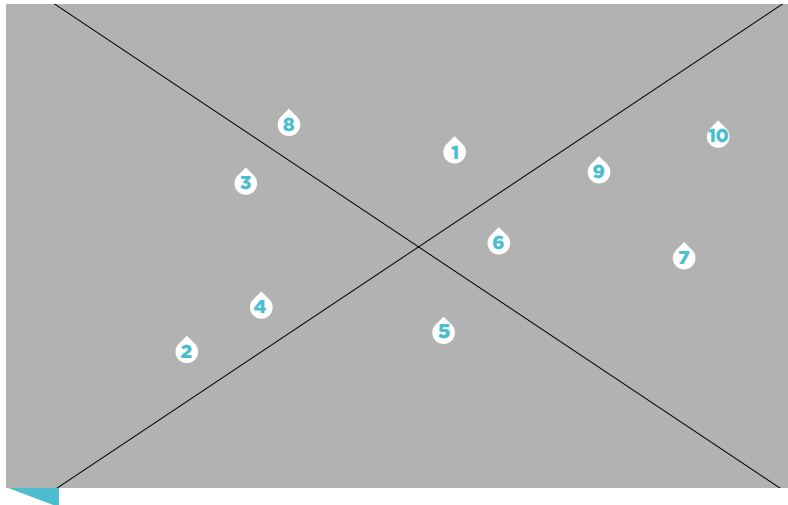
———— Hierarchical role
 Operational role



Regional Establishment Directors and Head Office Directors with François Toujas, President of EFS, at a seminar in July 2017.

Executive Committee

as of 1 May 2017



1
FRANÇOIS TOUJAS,
President of EFS

2
DR RACHID DJOUDI,
Director of ETS Île-de-France

3
PHILIPPE MOUCHERAT,
Communications Director

4
DR AZZEDINE ASSAL,
Director of ETS
Aquitaine-Limousin

5
MARIE-ÉMILIE JEHANNO,
Deputy Managing Director
of Human Resources

6
STÉPHANE NOËL,
Deputy Managing Director of
Production and Operations

7
FRANÇOIS HÉBERT,
Deputy Managing Director of
Strategy, Risks, and External
Relations

8
PROF. PIERRE TIBERGHEN,
Deputy Managing Director
of Medicine, Research
and Innovation

9
KARIMA YOUBI,
Chief of Staff

10
JACQUES BERTOLINO,
Deputy Managing Director of
Economic and Financial Control

Executive Board

as of 31 December 2016

Chaired by François Toujas, President of EFS, the Executive Board includes representatives from the French government, health organisations and donor and patient associations.

PRESIDENT

François Toujas

ELEVEN REPRESENTATIVES FROM THE FRENCH GOVERNMENT

GENERAL DIRECTORATE OF HEALTH (DGS)

Ex officio Member

Benoît Vallet

Representatives

Anne-Claire Amprou, Catherine Choma, Raphaël Capian, Muriel Cohen

GENERAL DIRECTORATE FOR HEALTHCARE SERVICES (DGOS)

Ex officio member

Anne-Marie Armenteras-de-Sacxe

Representative

Christian Thuillez

SECRETARIAT-GENERAL OF THE MINISTRIES OF SOCIAL AFFAIRS

Ex officio member

Pierre Ricordeau

Representative

Agnès Quiot

SOCIAL SECURITY DIRECTORATE (DSS)

Ex officio member

Thomas Fatome

Representatives

Thomas Filleur and Édouard Hatton

CENTRAL DIRECTORATE OF THE ARMED SERVICES HEALTHCARE SERVICE

Ex officio member

Jean Debonne

Representative

Anne Sailliol

BUDGET DIRECTORATE (DB)

Representatives

Claire Vincenti and Timothée Mantz

GENERAL DIRECTORATE FOR COMPETITION, CONSUMPTION AND ANTI-FRAUD (DGCCRF)

Ex officio member

Nathalie Homobono

Representative

Catherine Argoyti

GENERAL DIRECTORATE OF CORPORATIONS (DGE)

Ex officio member

Pascal Faure

Representative

Alain-Yves Brégent

GENERAL DIRECTORATE FOR RESEARCH AND INNOVATION (DGRI)

Ex officio member

Alain Beretz

Representative

Madeleine Duc Dodon

GENERAL DIRECTORATE FOR HIGHER EDUCATION (DGESIP)

Ex officio member

Simone Bonnafous

Representative

Pierre-Emmanuel Roux

GENERAL DIRECTORATE OF OVERSEAS TERRITORIES (DGOM)

Ex officio member

Alain Rousseau

Representative

Gaëlle Nerbard

SIX REPRESENTATIVES FROM ORGANISATIONS AND ASSOCIATIONS

REPRESENTATIVES FROM THE NATIONAL HEALTH INSURANCE AGENCY (CNAMTS)

Jean-Claude Fichet and Elisabeth Lemaure

REPRESENTATIVE FROM THE FRENCH HOSPITAL FEDERATION (FHF)

Prof. Jean-Luc Wautier

REPRESENTATIVE FROM PATIENT ASSOCIATIONS - FRENCH ASSOCIATION FOR HAEMOPHILIACS

Thomas Sannié

REPRESENTATIVES FROM BLOOD DONORS' ASSOCIATIONS

Michel Monsellier and Philippe Guinel

REPRESENTATIVE FROM PRIVATE HOSPITAL ORGANISATIONS

Guillaume Fevre

EFS EMPLOYEE REPRESENTATIVES

Élodie Bernard (deputy: Frédéric Didelot), Serge Dominique and Daniel Bloom

TWO QUALIFIED EXPERTS

Prof. Cécile Aubron and Prof. Didier Blaise

CONSULTING EXPERTS GENERAL ECONOMIC AND FINANCIAL CONTROL "SOCIAL RISK COVERAGE, SOCIAL COHESION, AND HEALTH SAFETY" MISSION

Alain Bourdelat

EFS CHIEF ACCOUNTING OFFICER

Franck Blettery

PRESIDENT OF THE SCIENTIFIC ADVISORY BOARD

Prof. Isabelle Durand-Zaleski

TWO GUEST EXTERNAL AUDITORS

ERNST & YOUNG
Dominique Pageaud

PRICEWATERHOUSECOOPERS

Florence Pestie

Governance

EXECUTIVE BOARD (EB)

The role of the EB, as defined by the French Public Health Code, is to establish the organisation's general policies and debate the major actions involved in their implementation.

EXECUTIVE COMMITTEE

The Executive Committee is EFS's managing authority; it is responsible for overseeing its activities and making the organisation's strategic decisions. The Committee meets twice a month and includes the president, the five deputy managing directors, two regional establishment directors (Aquitaine-Limousin and Île-de-France), the communications director and the chief of staff.

DIRECTORS' COMMITTEE (DC)

The DC reports to the president and includes the deputy managing directors, head office directors, and the regional establishment directors. The DC helps draft the organisation's policies and strategic decisions; it also assesses and corrects them as needed.

HEAD OFFICE DIRECTORS' COMMITTEE

The Head Office Directors' Committee includes the president, five deputy managing directors, the president's chief of staff, head office directors, the chief accounting officer, the responsible pharmacist, the international affairs advisor, the blood transfusion public service mediator, the medical software project manager, and the head office human resources director. The Head Office Directors' Committee is a governing body for information sharing and discussion. It also examines topic-specific issues.

AUDITING COMMITTEE

The Auditing Committee is made up of five administrators (Budget Directorate, General Directorate of Health (DGS), Social Security Directorate (DSS), French National Health Insurance Agency for Wage Earners (Cnam), and the Secretariat-General of the Ministries of Social Affairs). A representative from the General Economic and Financial Control (CGEFI) also attends these meetings. The chief accounting officer, EFS directors, and external auditors are invited to participate depending on the topics discussed at the meetings. The role of the Auditing Committee is to inform the Executive Board about financial and accounting issues, EFS's internal and external auditing programmes, and the effectiveness of the risk management systems. The Committee met three times in 2016.

SCIENTIFIC ADVISORY BOARD

The Scientific Advisory Board is made up of members and a president appointed by the French Health Minister in accordance with article R1222-10 of the French Public Health Code. The Board is called upon to give opinions on medical, scientific, and technical issues; it is also involved in establishing the blood transfusion research policy and assessing research programmes conducted by the establishment. The Board met for the first time in November 2015 (*see p.14*).

ETHICS AND PROFESSIONAL CONDUCT COMMITTEE

EFS has had an Ethics and Professional Conduct Committee since January 2014. Its role is to provide assistance to the president, responsible person, and the Executive Board with respect to ethical issues involving EFS's activities. This committee includes nine members who come from outside of EFS and serve for three years.

FIFTEEN EFS REGIONAL ESTABLISHMENTS

The directors of the 15 regional establishments report directly to the president of EFS. Within their respective regions, they are in charge of managing medical services related to blood transfusions (collection, processing, screening, and distribution). Depending on the region in question, they also oversee health care centres, biomedical analysis laboratories, and cell and tissue engineering activities, which may be associated with research projects. Each establishment includes a board, a processing platform, and several facilities which perform blood collection, patient immunohaematology testing and blood products distribution and delivery to healthcare institutions (hospitals and clinics).

ACTIVITY-SPECIFIC NETWORKS

These networks cover various fields of expertise, including communications, human resources, collection, haemovigilance, and IT systems, among others. These structures help EFS promote the collaborations, exchanges, and dialogue necessary to pool experience and standardise practices.

EMPLOYEE REPRESENTATIVE BODIES

These groups make up the legal framework for consulting and exchanging information with employees regarding issues related to EFS's organisation and working conditions. The group that serves this purpose on the national level is called the Central Corporate Committee. On a regional level, the Establishment Committees, Staff Delegates, and the Health, Safety, and Working Conditions Committees fulfil this role.

Glossary

ABM	French Biomedicines Agency (<i>Agence de la biomédecine</i>)	DGS	General Directorate for Health (<i>Direction générale de la santé</i> —Ministry of Health and Social Affairs)
ABO	Blood type classification system	IVDMD	In vitro diagnostic medical device
AFD	French Development Agency	DGS	Social Security Directorate (<i>Direction de la Sécurité sociale</i> —Ministry of Health and Social Affairs)
ANSM	French National Agency for Medicines and Health Products Safety (<i>Agence nationale de sécurité du médicament et des produits de santé</i>)	EBA	European Blood Alliance
ARS	Regional Health Agency (<i>Agence régionale de santé</i>)	SDAR	Serious donor adverse reactions
AVIESAN	French National Alliance for Health and Life Sciences (<i>Alliance nationale pour les sciences de la vie et la santé</i>)	RAR	Recipient adverse reactions
B	Biomedical analysis value unit, according to the nomenclature of the French Social Security System	STPO	Scientific and Technological Public Organisation
CCC	Central Corporate Committee	FTE	Full-time equivalent
DC	Directors' Committee	ETS	EFS Regional Establishment (<i>Établissement de transfusion sanguine</i>)
CDS	Health care centre (<i>centre de santé</i>)	FFDSB	French Voluntary Blood Donors' Association (<i>Fédération française pour le don de sang bénévole</i>)
EC	Establishment Committee	FHF	French hospital federation
CGEFI	General economic and financial control (<i>Contrôle général économique et financier</i>)	HLA	Human leucocyte antigen
RBCC	Red blood cell concentrates	HPA	Human platelet antigen
LD-RBCC	Leucocyte-depleted red blood cell concentrates	TTBI	Transfusion-transmitted bacterial infection
CHSCT	Hygiene, Safety, and Working Conditions Committee (<i>Comité d'hygiène, de sécurité et des conditions de travail</i>)	SAE	Serious adverse event in the transfusion chain
CHU	University Hospital (<i>centre hospitalier universitaire</i>)	EIH	Erythrocyte immunohaematology
MC	Mononuclear cells	IMRB	Mondor Institute of Biomedical Research (<i>Institut Mondor de recherche biomédicale</i>)
CNAM	French National Health Insurance Agency (<i>Caisse nationale d'assurance maladie</i>)	Inserm	French National Institute of Health and Medical Research (<i>Institut national de la santé et de la recherche médicale</i>)
CNAMTS	French National Health Insurance Agency for Wage Earners (<i>Caisse nationale d'assurance maladie des travailleurs salariés</i>)	PDN	Post-donation notification
Comex	Executive Committee (<i>Comité exécutif</i>)	ISO	International Organization for Standardization
APC	Apheresis platelet concentrates	WBDD	World Blood Donor Day
LD-APC	Leucocyte-depleted apheresis platelet concentrate	BAL	Biomedical analysis laboratory
CRH	Regional Haemovigilance Coordinator (<i>Coordonnateur régional d'hémovigilance</i>)	LFB	French Fractionation and Biotechnologies Laboratory (<i>Laboratoire français du Fractionnement et des Biotechnologies</i>)
HSC	Hematopoietic stem cells	CJD	Creutzfeldt-Jakob disease
DB	Budget Directorate (<i>Direction du budget</i> —Ministry of Finances and the Economy)	PPC	Pooled platelet concentrate
DGCCRF	General Directorate for Competition, Consumption and Anti-Fraud (<i>Direction générale de la concurrence, de la consommation et de la répression des fraudes</i> —Ministry of Finances and the Economy)	LD-PPC	Leucocyte-depleted platelet concentrate
DGE	General Directorate for Corporations (<i>Direction générale des entreprises</i> —Ministry of the Economy, Industry, and Digital Technology)	ATMP	Advanced Therapy Medicinal Product
DGESIP	General Directorate for Higher Education and Professional Development (<i>Direction générale pour l'enseignement supérieur et l'insertion professionnelle</i> —Ministry of Research and Higher Education)	MTI-PP	Hospital exemption - Advanced Therapy Medicinal Product (<i>Médicament de thérapie innovante préparé ponctuellement</i>)
DGOS	General Directorate for Healthcare Services (<i>Direction générale de l'offre de soins</i> —Ministry of Health and Social Affairs)	APO	Acute pulmonary oedema
DGRI	General Directorate for Research and Innovation (<i>Direction générale de la recherche et de l'innovation</i> —Ministry of Research and Higher Education)	WHO	World Health Organization
		A-FFP	Apheresis fresh frozen plasma
		FFP-IA	Fresh frozen plasma treated with amotosalen
		SD-FFP	Solvent/detergent-treated fresh frozen plasma
		Q-FFP	Quarantined secured fresh frozen plasma
		LBP	Labile blood product
		DS	Donation Screening
		RREVA	Regional network for vigilance and support (<i>Réseau régional de vigilances et d'appui</i>)
		TRALI	Transfusion Related Acute Lung Injury
		RPU	Reagent production unit
		HIV	Human immunodeficiency virus (AIDS virus)



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www.efs.sante.fr



EFS *in* FIGURES

2016 ANNUAL REPORT





EFS *in* FIGURES

In this data document, you will find the key figures relating to EFS activities: donors and collections, transfers, vigilance activities, quality control, biomedical analysis laboratories, research, Human Resources report, financial data.

This information illustrates the vitality of the public transfusion service and the role of EFS in the French health system. It also further demonstrates that EFS is much more than blood donation.

15

EFS REGIONAL ESTABLISHMENTS
(INCLUDING THREE IN FRENCH
OVERSEAS DEPARTMENTS)

2,938,409

COLLECTIONS,
INCLUDING 448,560 BY APHERESIS

128

COLLECTION SITES

1,597,460

DONORS

4.48

MILLION EUROS
OF NET INCOME

4

STEPS IN THE JOURNEY
OF A BLOOD BAG: COLLECTION,
PROCESSING, SCREENING,
AND DISTRIBUTION

507

MILLION BIOMEDICAL ANALYSIS
VALUE UNITS

866

MILLION EUROS
OF TURNOVER

1500

HOSPITALS AND CLINICS
SUPPLIED WITH BLOOD PRODUCTS

2850

VOLUNTEER ASSOCIATIONS

39.6

MILLION EUROS
OF INVESTMENTS

9730

EMPLOYEES

750,000

MEMBERS OF THE FRENCH
VOLUNTARY BLOOD DONORS'
ASSOCIATION (FFDSB)

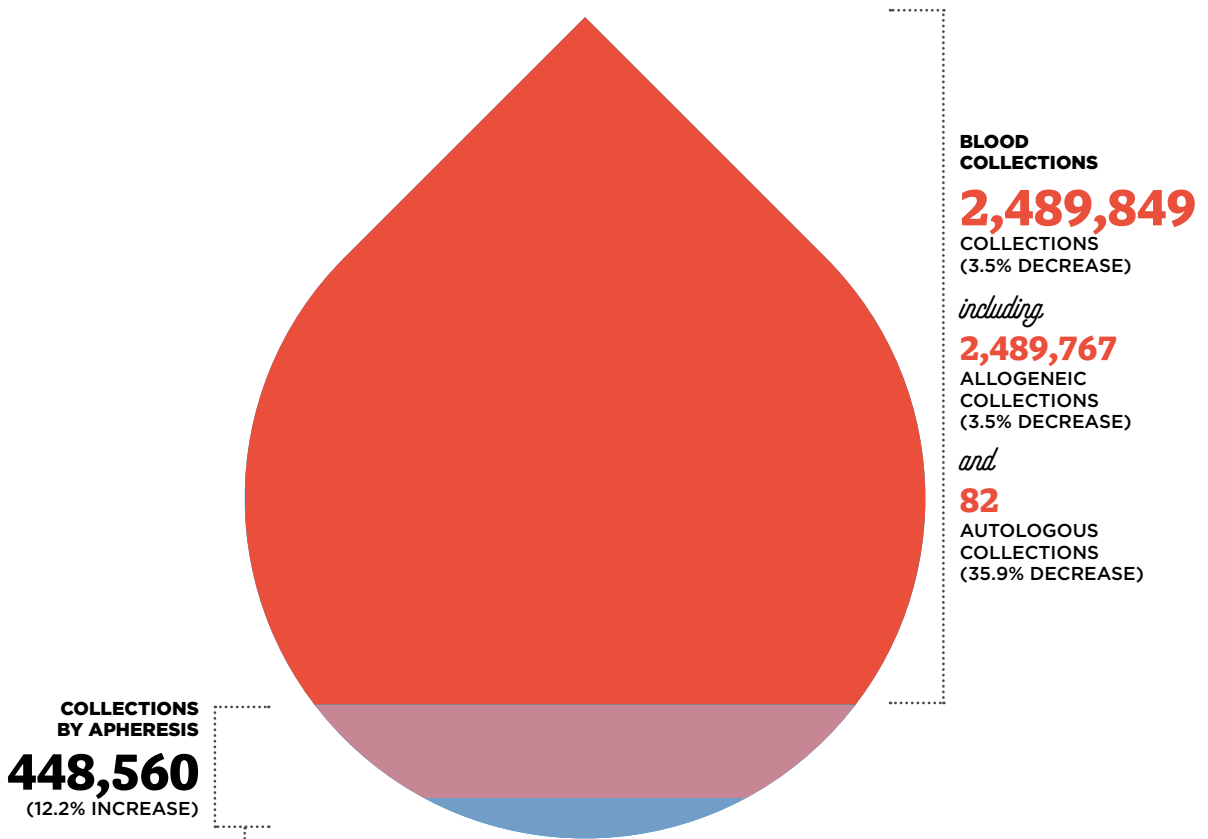
19

RESEARCH TEAMS

COLLECTIONS

2,938,409

COLLECTIONS IN 2016, A 1.4% DECREASE COMPARED TO 2015



BLOOD COLLECTIONS

2,489,849

COLLECTIONS
(3.5% DECREASE)

including

2,489,767

ALLOGENEIC COLLECTIONS
(3.5% DECREASE)

and

82

AUTOLOGOUS COLLECTIONS
(35.9% DECREASE)

COLLECTIONS BY APHERESIS

448,560

(12.2% INCREASE)

equivalent to

340,507 (19.9% INCREASE)
SINGLE-PRODUCT APHERESIS

including

- 336,510** (20.7% INCREASE) PLASMA APHERESIS
- 3853** (21.7% DECREASE) PLATELET APHERESIS
- 1** (STABLE) RED BLOOD CELLS
- 143** (38.4% DECREASE) GRANULOCYTES

and

108,053 (6.7% DECREASE)
COMBINED APHERESIS

including

- 104,383** (5.8% DECREASE) APC/PLASMA
- 147** (63% DECREASE) APC/RBCC
- 0** (STABLE) RBCC/PLASMA
- 3523** (24.5% DECREASE) RBCC/APC/PLASMA

TRANSFERS

- 1.5%

TRANSFERS OF LABILE BLOOD PRODUCTS WERE DOWN IN 2016 COMPARED TO 2015*

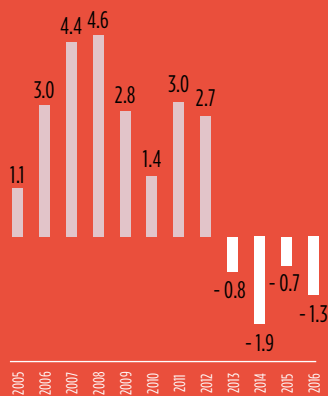
RED BLOOD CELL CONCENTRATE TRANSFERS

1.3%

decrease in red blood cell concentrate transfers in 2016 compared to 2015 (i.e. a decrease of 31,399 red blood cell concentrates).

After over a decade of increased activity, the fall in activity continues for the fourth consecutive year.

Difference between 2005 and 2016 (in %)



PLATELET TRANSFERS

0.6%

increase in platelet transfers in 2016 compared to 2015 (equivalent to 1746 bags).

4.1%

increase in pooled platelet concentrate transfers from whole blood compared to 2015.

4.1%

decrease in apheresis platelet concentrate (APC) transfers.

59.1%

Proportion of pooled platelet concentrate in platelet transfers, compared to 57.1% at the end of 2015.

PLASMA FOR FRACTIONATION

866,297 litres

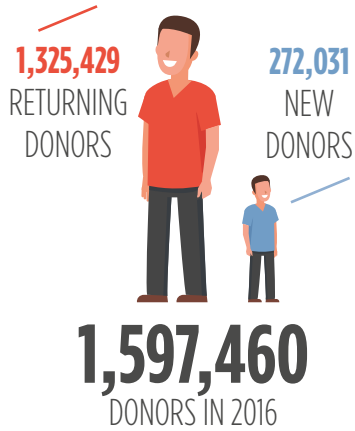
of plasma supplied to the French Fractionation and Biotechnologies Laboratory (LFB) in 2016, compared to 794,703 litres in 2015; an increase of 71,594 litres which represents a

9.0%

increase compared to 2015.

*Mainly RBCC and apheresis platelet concentrate transfers.

DONORS AND DONATIONS



Self-sufficiency was maintained in 2016, with a fall in the number of collections (3.5% decrease for blood donations) compared to 2015 which saw an exceptional number of collections (in the wake of the November attacks). In line with this trend, the number of donors also fell (2.9% decrease); this decrease was solely attributable to new donors (16% decrease), whilst the number of returning donors remains stable (0.3% increase). **The new donor percentage is 17% versus 19.7% in 2015.**

Mobile Collection Sessions



2,018,694
DONATIONS IN 2016

2,004,599
RED BLOOD CELLS - WHOLE BLOOD

14,095
PLASMA

Fixed sites



929,452
DONATIONS IN 2016

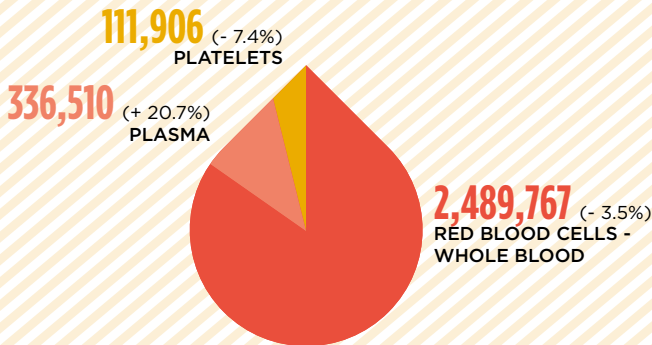
485,132
RED BLOOD CELLS - WHOLE BLOOD

332,414
PLASMA

111,906
PLATELETS

18.8% of blood donations were collected at fixed sites, lower than in 2015 (19.75%). This is due to the reorganisation of the collection service in fixed sites and the switch in focus from whole blood donation to plasma donation.

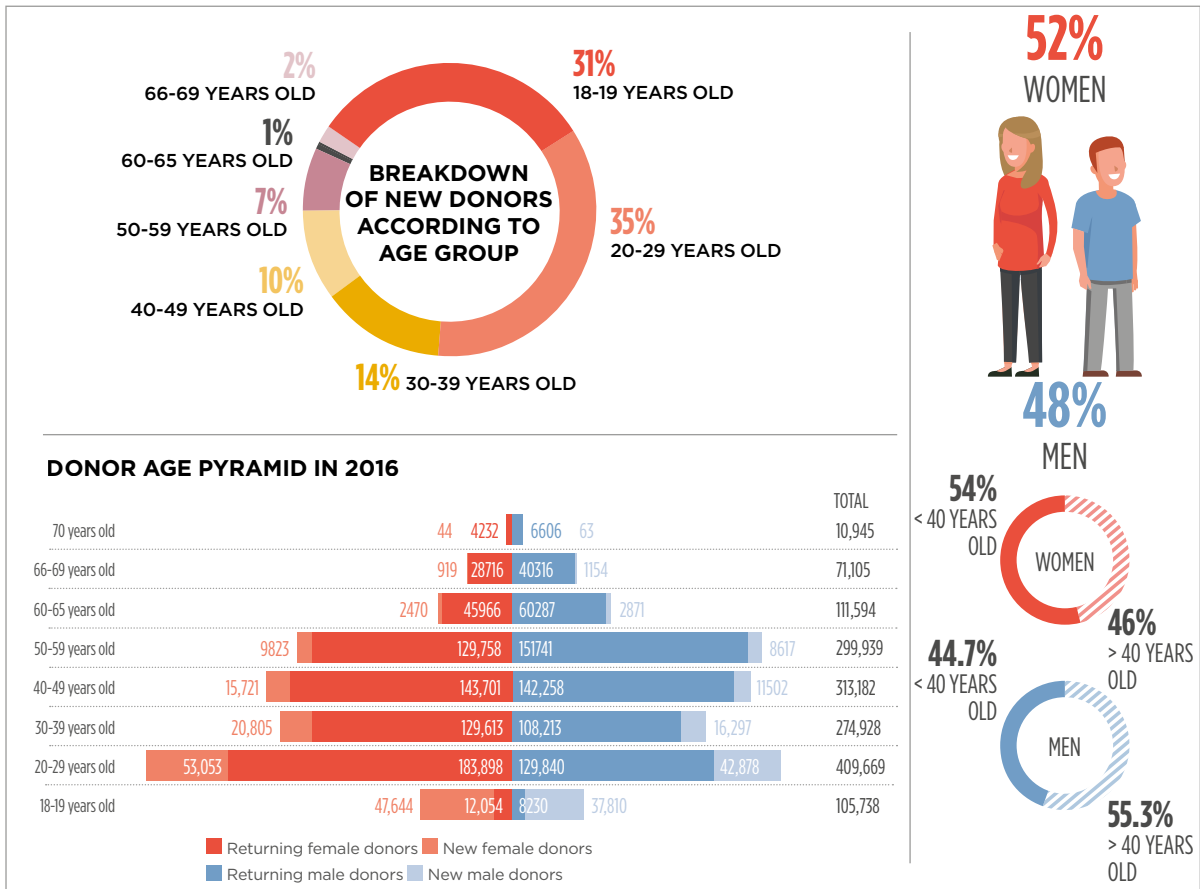
COLLECTIONS BY ALLOGENEIC DONATION TYPE (EXCLUDING GRANULOCYTES) IN 2016



1/ High stock levels of red blood cells at the beginning of 2016 led to a delay in the usually considerable collection efforts at the start of the year.

2/ The significant increase in plasma apheresis activities met the demand from LFB.

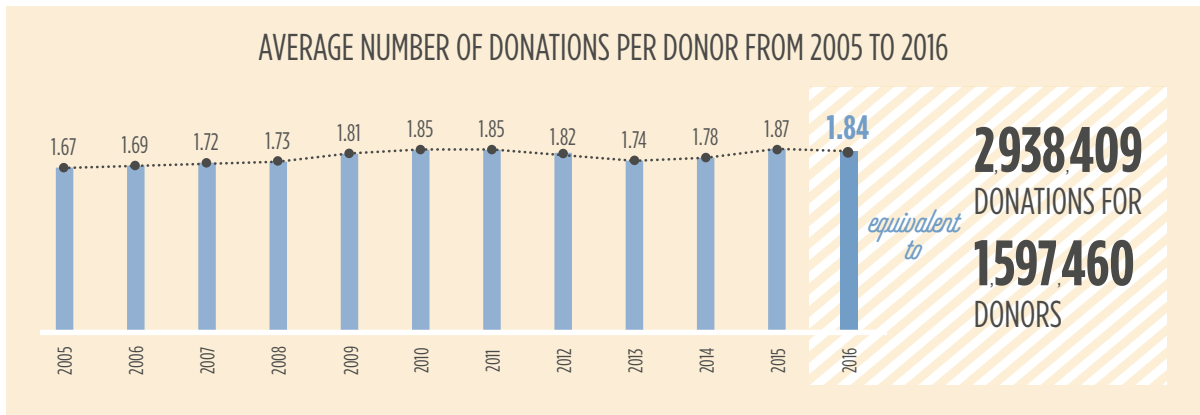
3/ The reduction in the number of apheresis platelets can be attributed to the continuing strategy of focusing on whole blood platelets.



255,206
DEFERRED ATTENDANCES IN 2016
(OUT OF 3,195,490 ATTENDANCES),
DOWN 2% COMPARED TO 2015

equivalent to **8%**
OF ATTENDANCES

The percentage of deferred attendances fell in comparison with 2015, a year in which metropolitan France experienced epidemiological phenomena (West Nile Virus) which contributed to a slight increase, which did not reoccur in 2016.



VIGILANCE ACTIVITIES

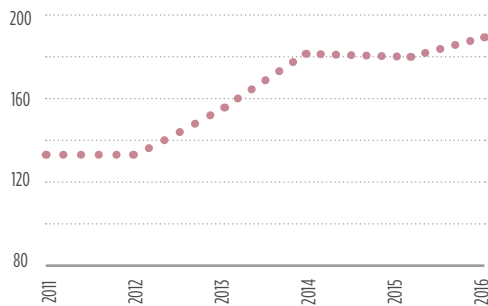
SEVERE DONOR ADVERSE REACTIONS (SDAR): VASOVAGAL REACTIONS CONTINUE TO ACCOUNT FOR THE VAST MAJORITY OF REPORTS

In 2016, there was a slight increase in the number of SDARs reported per 100,000 donations. This figure increased from 178 in 2015 to 189 in 2016.

82.92%

This is the percentage of SDARs accounted for by vasovagal reactions. The ratio between the regional establishment that reports the most events and the regional establishment that reports the least decreased from 2.88 to 2.36. The ratio increases to 2.38 when the regional establishments in French overseas departments are included.

SDARS* 2011-2016 INDICATORS PER 100,000 COLLECTIONS

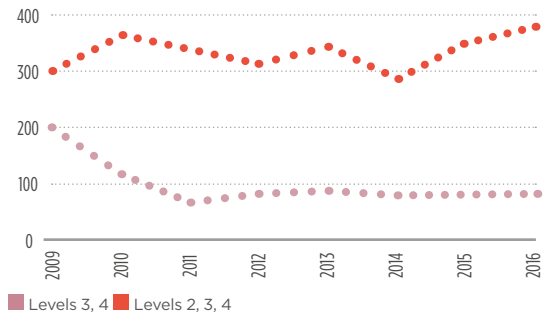


*SDARS of severity level 2, 3, and 4 and imputability level 1, 2, and 3 and non-assessable.

RECIPIENT ADVERSE REACTIONS (RAR)

The number of RAR remains stable (8631 all severity and imputability levels combined, including 8295 closed cases).

NUMBER OF RAR WITH STRONG IMPUTABILITY LEVEL



RARS WITH STRONG IMPUTABILITY LEVEL 2, 3 PER 100,000 TRANSFERRED LBPS

	2012	2013	2014	2015	2016
Platelet allergy	3.68 15.06	4.29 17.47	6.27 17.49	5.58 22.67	6.62 23.81
Plasma allergy	4.76 9.25	4.78 9.56	3.34 8.08	5.33 13.63	6.54 15.01

■ Levels 3, 4 ■ Levels 2, 3, 4

The two deaths due to transfusions in 2016 (six in 2015) were caused by one transfusion-transmitted bacterial infection (TTBI) and one overload acute pulmonary oedema (APO) both of which were linked to a transfusion of red blood cell concentrates.

SERIOUS ADVERSE EVENTS (SAE) IN THE TRANSFUSION CHAIN

2,428 SAE

reported, 1730 of which occurred at EFS (compared to 2157 in 2015).

1730 reports, including:
1569 regarding the collection stage (compared to 1212 in 2015) and
117 regarding the distribution-issuing stage.

The number of reported SAEs due to excessive volume collected decreased between 2015 and 2016, with an incidence of 66.06 SAEs per 100,000 collections in 2015 versus 51.39 in 2016.

POST-DONATION NOTIFICATIONS (PDN): RISK OF INFECTION IS MOST COMMON

1915 PDNs

(11.1% increase) were reported to ANSM in 2016. The majority of PDNs, i.e. 74.67% of reports, were related to a risk of infection (fever, flu-like illness, gastroenteritis, bacterial infections, exposure to a parasitic infection, etc.).

MEDICAL DEVICE VIGILANCE

62

REPORTS IN 2016,
COMPARED TO 56 IN 2015.

LBP QUALITY CONTROL

LEUCOCYTE-DEPLETED RED BLOOD CELL CONCENTRATE

The active component in this product is haemoglobin.

Leucocyte-depleted red blood cell concentrates must contain at least **40 g** of haemoglobin (Hb).

- **56.8 g**, this is the average haemoglobin content of the leucocyte-depleted red blood cell concentrates prepared by EFS in 2016, with a compliance rate of **98.7%**.

LEUCOCYTE-DEPLETED APHERESIS PLATELET CONCENTRATE

The active component in this product is the total quantity of platelets. This type of concentrate must contain at least

2.0×10^{11} platelets.

- **4.9×10^{11}** , this is the average platelet content of the leucocyte-depleted apheresis platelet concentrate prepared by EFS in 2016, with a compliance rate of **99.2%**.

POOLED LEUCOCYTE- DEPLETED PLATELET CONCENTRATE

The active component in this product is the total quantity of platelets. This type of concentrate must contain at least

1.0×10^{11} platelets.

- **4.2×10^{11}** , this is the average platelet content of the leucocyte-depleted apheresis platelet concentrate prepared by EFS, with a compliance rate of **99.9%**.

RESIDUAL LEUCOCYTE CONTENT IN CELLULAR LBPS

In terms of leucocyte reduction, regulatory requirements stipulate that a minimum of 97% of units must be compliant.

- All of the aforementioned concentrates prepared by EFS are compliant with this requirement.

THERAPEUTIC PLASMA (Q-AFFP AND Q-FFP, FFP-IA AND POOLED FFP-IA)

FACTOR VIII (FVIII) AND FIBRINOGEN

The quality control procedures and standards applicable to FFP for FVIII and fibrinogen content

are variable depending on the plasma manufacturing method used.

For FFP-IA and pooled FFP-IA, the minimum requirement of FVIII is **0.5 UI/ml** for at least **70%** of units checked and **2 g/l** of fibrinogen for at least **70%** of units checked.

- All of the FFP-IA prepared by EFS is compliant with these requirements.

For plasma secured by a 60-day quarantine period (Q-AFFP and Q-FFP), the minimum requirement of FVIII is **0.7 UI/ml**.

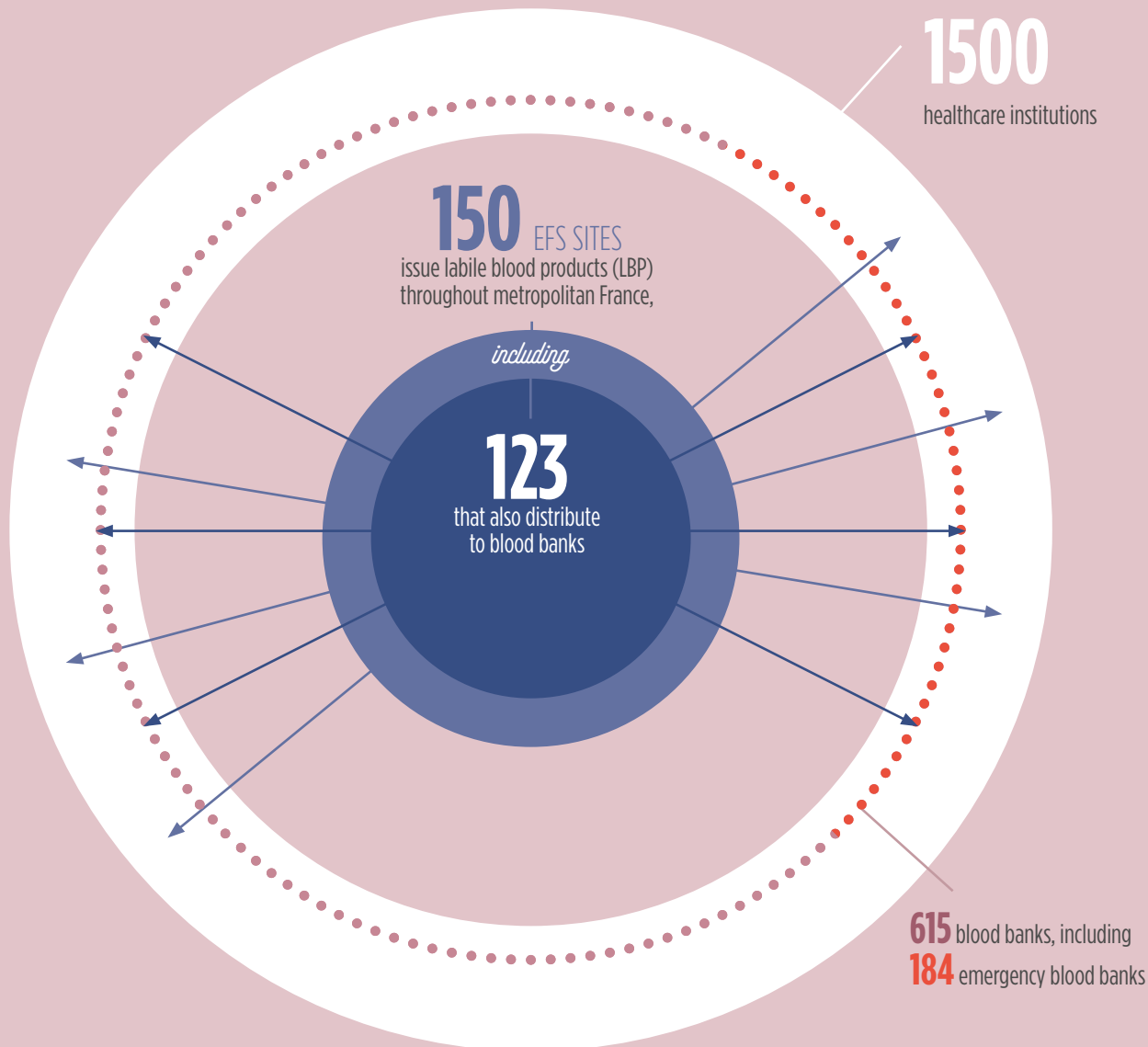
- All of the quarantine FFP prepared by EFS is compliant with these requirements.

RESIDUAL LEUCOCYTE CONTENT

In terms of leucocyte reduction for therapeutic plasmas, regulatory requirements stipulate that a minimum of **95%** of units must be compliant.

- All of the FFP prepared by EFS is compliant with this requirement.

ISSUING



24 hours a day AND 7 days a week

Most EFS issuing sites serve healthcare institutions (approximately 1500), and by extension the patients, 24 hours a day, seven days a week.

BIOMEDICAL AND PRE-TRANSFUSION TESTING

507.3

MILLION BIOMEDICAL ANALYSIS VALUE UNITS

THIS IS THE BIOMEDICAL ACTIVITY CARRIED OUT BY EFS IN 2016,
I.E. A 2.6% DECREASE

-4.2%

EIH billing decreased by 4.2% between 2015 and 2016. It is negatively affected by the change in LBP transfers, the modification to the pricing for blood grouping and phenotyping tests (€3.7 million impact for the full year), the discontinuation of billing for safety fees (€3.2 million impact for the full year), and the streamlining of prescriptions for these analyses.

68.7%

of these analyses concerned erythrocyte immunohaematology.

171

million biomedical analysis value units Histocompatibility and immunogenetics laboratories, which perform biological testing related to the HLA system, conducted 171 million biomedical analysis value units in 2016, an increase in comparison with 2015.

5000

cases regarding care for neonatal thrombocytopenia.

12

HLA laboratories in metropolitan France help care for transplant patients. Most of these laboratories are voluntary bone marrow donation centres and have been added to the French Bone Marrow Transplant register managed by the French Biomedicine Agency (ABM).

14,710

voluntary bone marrow donors registered on the French Bone Marrow Transplant register in 2016.

CELL AND TISSUE THERAPY

EFS COMPRISES:

6 multi-tissue banks & **2** cornea banks
18 cell therapy units including **2** cord blood banks

HEALTHCARE CENTRES

76

EFS HEALTH CARE CENTRES LOCATED
IN 12 REGIONAL ESTABLISHMENTS

IN 2016, THEY PERFORMED:

69,470

bloodletting procedures for patients with haemochromatosis and other conditions that cause iron overload. Among these, 24.9% were converted into blood donations (i.e. 17,274)

2234

Red cells exchanges

3614

transfusions

682

collections of autologous blood haematopoietic stem cells, 426 collections of allogeneic blood haematopoietic stem cells and 202 collections of mononuclear cells

88

white blood cell depletions

3032

extracorporeal photopheresis procedures

3042

other therapeutic apheresis procedures, including plasma exchanges, LDL (low density lipoprotein) apheresis, and therapeutic platelet apheresis procedures

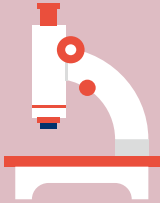
1164

apheresis procedures were performed outside of EFS health care centres in 2016, particularly for paediatric patients. EFS health care centre teams primarily care for patients on an outpatient basis, but they also attend healthcare institutions as needed

- 6.4%

This represents the decrease in the number of transfusions and other procedures excluding apheresis in 2016 compared to 2015 (4809 versus 5697).

RESEARCH AND INNOVATION



RESEARCH TEAMS

164

full-time equivalent positions,
within 19 teams

23

million euro budget

PATENTS

The EFS patent portfolio includes 35 patent families. In 2016, six new priority patent applications were filed and two non-exclusive licences were granted to industrial partners. The patent families are mostly related to therapies, particularly cell and tissue therapy, medical devices, and the improvement of labile blood product manufacturing processes.

REAGENT PRODUCTION UNIT

6

manufacturing sites,
within 5 regional
establishments

125

product references,
including 40
with CE marking



IN VITRO DIAGNOSTIC MEDICAL DEVICES (IVDMD) MANUFACTURED BY THE RPU

were distributed to

145

biomedical
analysis
laboratories

25

customers
in France
and abroad

4

partners in
the medical
diagnostics sector

6.5

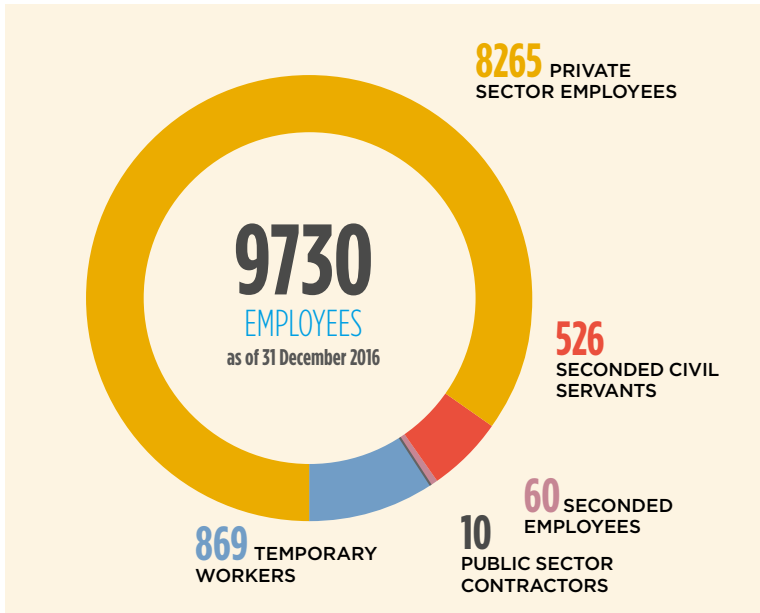
million euros
of transfers (+15%
compared to 2015)

50%

of the business
turnover generated
from external
customers

HUMAN RESOURCES REPORT

STAFF EMPLOYED IN OUR "CORE BUSINESS", ASSOCIATED ACTIVITIES, RESEARCH, AND SUPPORT SERVICES



70.2%

OF STAFF EMPLOYED
IN EFS' CORE BUSINESS
ACTIVITIES

44 YEARS OLD

AVERAGE AGE

14 YEARS

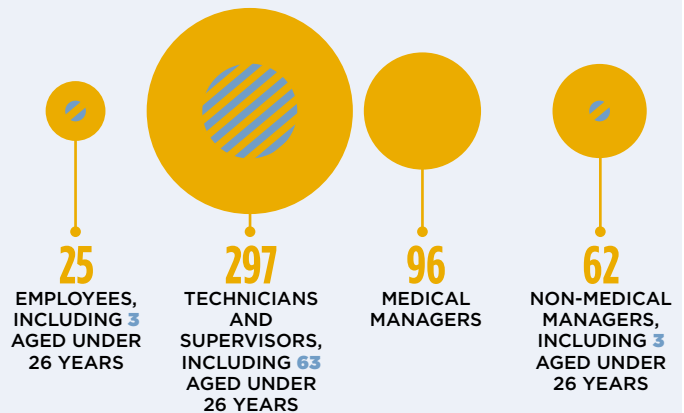
AVERAGE LENGTH
OF SERVICE



WOMEN

ACCOUNT FOR THREE
QUARTERS OF THE TOTAL
WORKFORCE AT EFS (73%)

480 PERMANENT CONTRACT EMPLOYEES,
including 69 AGED UNDER 26 YEARS



26.8%

OF EMPLOYEES
WORK PART TIME

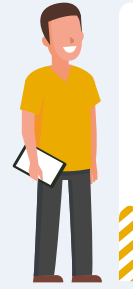
WHICH REPRESENTS,
IN EACH
SOCIO-ECONOMIC
CATEGORY



42.7%
MEDICAL
MANAGERS



27.0%
TECHNICIANS
AND SUPERVISORS



26.7%
EMPLOYEES



8.3%
NON-MEDICAL
MANAGERS

170

SUBSIDISED CONTRACTS
CONCLUDED IN 2016

including

66

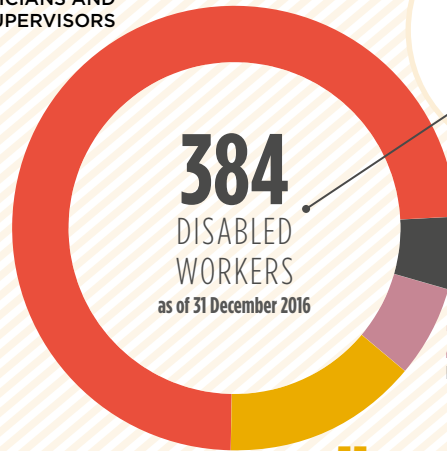
APPRENTICESHIP CONTRACTS,

and

104

PROFESSIONAL TRAINING
CONTRACTS

284
TECHNICIANS AND
SUPERVISORS



THE REDUCED RATE
OF EMPLOYMENT
OF DISABLED
WORKERS IS

7%

20 MEDICAL
MANAGERS

25 NON-MEDICAL
MANAGERS

55 EMPLOYEES

451 PERMANENT CONTRACT
EMPLOYEE DEPARTURES

42% RETIREMENTS

33% RESIGNATIONS

25% OTHER
REASONS

+ 1 in 2
EMPLOYEES
RECEIVED
TRAINING IN 2016

FINANCIAL DATA

INCOME STATEMENT

	2016	2015	2016 vs 2015	
	€K	€K	€K	%
Operating revenues	928,675	941,347	-12,672	-1.3%
Operating Expenses	934,748	948,202	-13,454	-1.4%
Operating Results	- 6072	- 6854	782	-
Non-operating revenues and expenses	- 1040	- 176	- 864	-
Extraordinary profit or loss	- 225	- 1,508	1,283	-
Employee profit sharing	3092	3,140	- 48	-
Corporate taxes	- 14,890	- 14,499	- 391	-
Net accounting results	4,477	2,845	1,632	-

OPERATING RESULTS

EFS' operating results are - €6.1million. They have increased by €0.8 million compared to 2015.

NON-OPERATING REVENUES AND EXPENSES

EFS's non-operating revenues and expenses equal - €1.0 million, which represents a €0.9 million decrease compared to 31 December 2015.

EXTRAORDINARY PROFIT OR LOSS

EFS's extraordinary profit or loss (- €0.2 million) has improved by €1.3 million compared to 2015.

ANALYSIS OF INCOME TAX AND SIMILAR PAYMENTS

The research tax credit for 2016 equals €4.4 million. The employment and competitiveness tax credit is €10.4 million in 2016.

EFS is not subject to corporate taxes for 2016 due to a negative fiscal result.

PROFIT SHARING

Profit sharing expenses were recorded at €3.1 million in 2016, this is stable compared to 2015.

70.1%

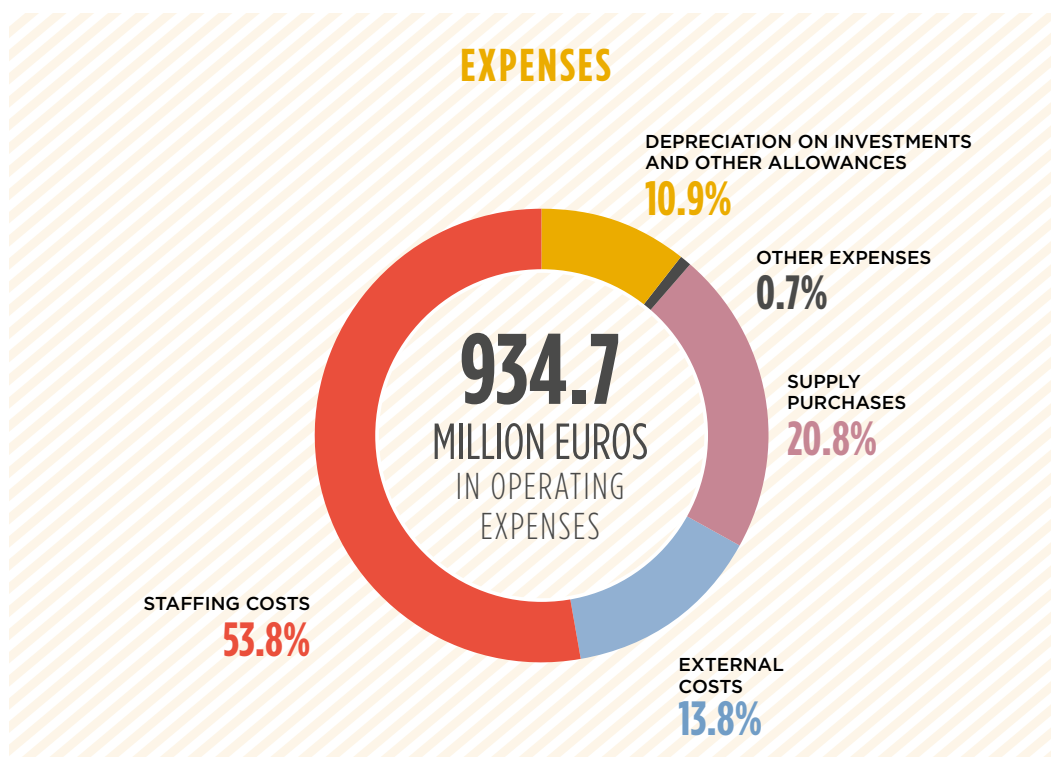
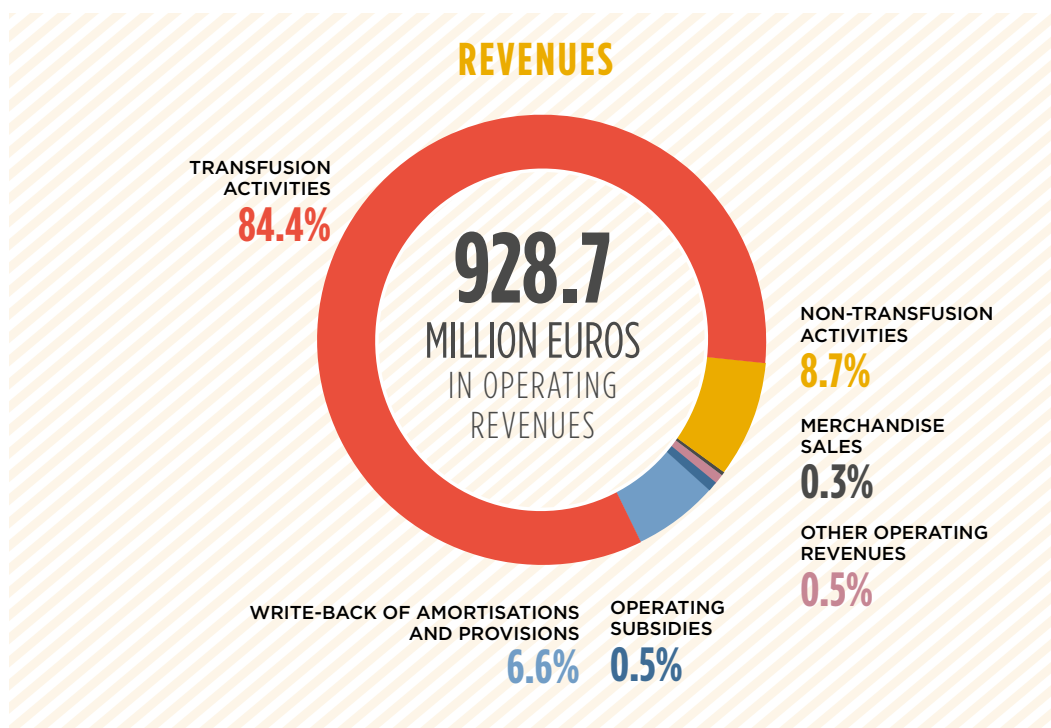
OF EFS' TURNOVER
IS GENERATED
FROM THERAPEUTIC
ALLOGENEIC LBP TRANSFERS

EFS INVESTMENTS

The total amount of tangible and intangible investments from 2016 is €39.6 million, i.e. 4.6% of EFS's turnover.

The investments can be broken down by type as follows:

- Intangible assets €4.0 million
- Tangible assets €35.6 million



STATEMENT OF ASSETS

Assets	Gross value	Amortisations and/or provisions	31/12/2016	31/12/2015
Uncalled subscribed capital				
INTANGIBLE ASSETS				
Preliminary costs				
Research and development costs				
Licenses, patents, and similar rights	66,804,109	57,717,564	9,086,545	11,509,083
Goodwill	442,120		442,120	442,120
Other intangible assets	1,804,231	42,909	1,761,323	848,154
Advance payments and down payments received on assets				
TANGIBLE ASSETS				
Land	14,971,826	1,197,743	13,774,083	13,818,827
Buildings	374,351,595	236,177,424	138,174,171	145,977,849
Mechanical and electrical systems	234,452,741	169,312,996	65,139,746	69,851,768
Other tangible assets	68,579,692	58,258,190	10,321,502	10,747,563
Pending assets	17,137,219		17,137,219	6,540,074
Advance payments and down payments	233,411		233,411	2820
FINANCIAL ASSETS				
Investments evaluated by equity method				
Other investments	5,179,905	650,000	4,529,905	4,659,905
Investment-related receivables				
Other long-term investments	16,136		16,136	16,200
Loans	16,709,587	14,937	16,694,651	15,623,271
Other financial assets	2,537,028	4692	2,532,336	2,386,848
CAPITAL ASSETS	803,219,602	523,376,455	279,843,147	282,424,481
INVENTORY AND LIABILITIES				
Raw materials and supply				
Work in progress for production of goods	31,436,986	389,880	31,047,107	32,175,512
Work in progress for services	12,753,625	5,636,891	7,116,734	7,632,114
Intermediate and finished products	82,132,338	53,492,882	28,639,456	35,301,440
Merchandise	737,311		737,311	1,175,950
Advance payments and down payments on orders	217,826		217,826	284,260
ACCOUNTS RECEIVABLE				
Trade accounts receivable	170,034,948	1,591,206	168,443,742	154,869,361
Other accounts receivable	64,996,418	3,686,296	61,310,121	47,448,899
Subscribed capital called but not paid				
SUNDRY				
Marketable securities	31,000,000		31,000,000	32,133,515
Cash balances	26,926,720		26,926,720	33,747,403
ACCRUED INCOME AND PREPAID EXPENSES				
Prepayments	5,363,427		5,363,427	6,155,237
CURRENT ASSETS	425,599,599	64,797,155	360,802,443	350,923,691
Expenses to be distributed across several fiscal years				
Premiums on redemption of debentures				
Conversion rate adjustment – assets	463		463	1,604
GRAND TOTAL	1,228,819,664	588,173,610	640,646,054	633,349,775

STATEMENT OF LIABILITIES

Assets	31/12/2016	31/12/2015
Share capital	55,671,115	55,751,195
Issue, merger and acquisition premiums		
Revaluation reserves		
Legal reserve		
Statutory reserve		
Regulatory reserve		
Other reserves	154,742,692	154,742,692
Carried forward	81,727,279	78,881,980
EARNINGS FOR THE FISCAL YEAR	4,477,183	2,845,300
Investment subsidies	28,193,085	30,626,505
Regulated provisions	0	
OWNERS' EQUITY	324,811,354	322,847,670
Proceeds from non-voting shares		
Conditional advances		
OTHER PRIVATE FUNDS		
Provisions for liabilities	32,158,223	27,336,166
Provisions for expenses	62,680,782	60,142,222
PROVISIONS FOR LIABILITIES AND EXPENSES	94,839,005	87,478,388
FINANCIAL DEBT		
Bond loans		
Other bond loans		
Loans and debt from credit institutions	15,396,854	20,103,177
Sundry loans and financial debts	129,589	129,589
Advance payments and down payments received on orders in progress		
OPERATING DEBTS		
Supplier debts	108,197,720	110,891,873
Fiscal debts	74,022,628	73,748,951
SUNDRY DEBTS		
Debts on assets	19,057,226	13,465,296
Other debts	1,855,666	1,881,316
ACCRUED INCOME AND PREPAID EXPENSES		
Deferred revenue	2,334,133	2,803,454
DEBTS	220,993,816	223,023,655
Conversion rate adjustment - liabilities	1,879	62
GRAND TOTAL	640,646,054	633,349,775



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