Sanquin
Plesmanlaan 125
1066 CX Amsterdam
P.O. box 9892
1006 AN Amsterdam
Telephone 020 - 512 30 00

www.sanquin.nl

Sanquin

Blood and Beyond

ANNUAL REPORT 2017

Sanquin

ANNUAL REPORT 2017

Sanquin

Here a fold-out poster with the House of Sanquin

“It’s our desire to get the House of Sanquin into the best possible shape for the future”

DIRK JAN VAN DEN BERG
Chairman of the Executive Board

FOREWORD

Together with the donor, we ensure a better life for patients.

Simply put, this is the heart of what we do, and why we do it. Last year, we formulated this statement as the organization's mission. Sanquin's ultimate goal is to improve – and even save – the lives of thousands of people, and we can only do that because so many other people selflessly donate their blood – time and time again. I repeat this in almost all of Sanquin's communications, because it remains something very special: the gift, from one person to another, for a better life.

It is our task to handle this gift very carefully and to use it to its maximum potential, in the most efficient and safest way possible. We've been doing this since Sanquin began in 1998. We're going to celebrate this 20th anniversary in an appropriate way in 2018. In the past year we have thought through and talked a lot about our mission and strategy. The challenge is to ensure that Sanquin continues to meet the demands and needs of patients and healthcare for the next twenty years. Every part of our organization faces its own challenges, but it has the determination, resourcefulness and strength to tackle them. And no single part has to face the challenges alone, but can seek out collaboration with the other parts. Sanquin consists of a marvelous combination of operations, which we've depicted in the House of Sanquin, in the beautifully designed foldout poster in this publication.

It's our desire to get the House of Sanquin into the best possible shape for the future, and in the past year we have made the necessary efforts to achieve this. We have formulated three core values that are crucial for this future preparation, and these are central to every floor of the house: responsible, connected and innovative.

Responsible, because we are responsible for a safe blood supply in the Netherlands. We must work responsibly with the donor's gift and ensure that the patient receives safe blood products. We are also responsible for thorough blood research and for sharing that knowledge with other scientists.

Connected, because we are not an island but are connected with many parties. We work closely with patient organizations, donors, hospitals and other companies that help us achieve our social goals. In addition, it's also about connecting with society because public support is necessary for the performance of our tasks.

Innovative, because we do not live in a static world. For example, how are we going to deal with the declining demand for red blood cells and the increasing demand for plasma-derived medicines? How do we apply the knowledge we have gained to new products and services for the patient? These questions call for an open and innovative spirit and an organization that is able to renew itself and adapt to the circumstances.

We encourage our employees to think actively about innovation, to connect with each other and to personally take responsibility. I regularly walk through our departments and every time I notice how incredibly motivated people are to work for Sanquin. That is why I look forward to our future with confidence.

DIRK JAN
VAN DEN BERG
Chairman of the
Executive Board

CONTENTS

SANQUIN IN BRIEF

SANQUIN IN BRIEF

About Sanquin

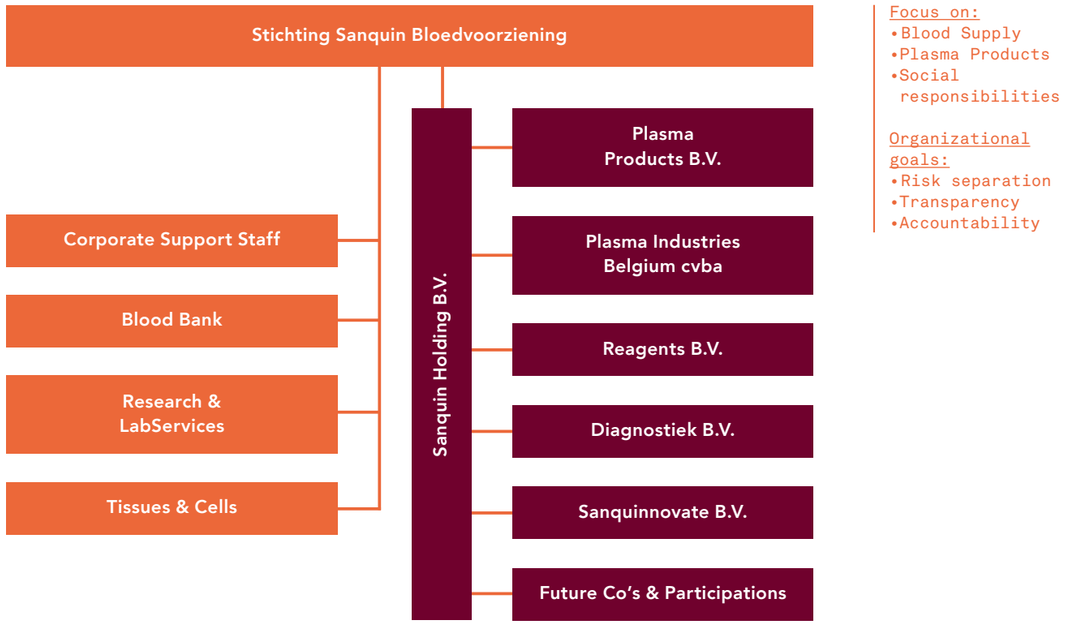
Sanquin is a knowledge-driven not-for-profit organization that supplies life-saving products and focuses on health care needs. Research helps us find new solutions for medical problems in the fields of transfusion medicine, hematology and immunology. We are constantly aware of our responsibility to donors – to handle their gift carefully, efficiently and responsibly – and to patients – whose safety and wellbeing is a priority.

Our organization

Sanquin comprises the following organizational divisions: the Blood Bank, Plasma Products, Diagnostics Services, Research and LabServices, Reagents, Tissues & Cells and, since 2017, the new company: Sanquinnovate BV. The corporate support staff supports these divisions and advises the Executive Board.

The Blood Bank is responsible for collecting donor blood and plasma that we then turn into blood products. It also advises on those blood products and is closely involved in clinical research.

New legal structure



Focus on:
- Blood Supply
- Plasma Products
- Social responsibilities

Organizational goals:
- Risk separation
- Transparency
- Accountability

Plasma Products uses the plasma gathered by the Blood Bank to produce medicines. These plasma-derived medicines are intended for patients with specific disorders, such as bleeding and immune system disorders.

Diagnostic Services performs assays in the fields of blood transfusion and immunology, as well as genetic testing, including blood group testing. This division can undertake all blood-related lab tests for hospitals, blood banks, obstetrician's practices, insurance organizations, pharmaceutical companies and other institutes.

Research & LabServices carries out fundamental and applied research in the fields of blood, plasma-derived medicine and diagnostics. In each case it does so in partnership – primarily - with academic research centers in the Netherlands and abroad.

Reagents develops a wide range of blood group reagents and immuno-reagents within its own research facilities and diagnostics labs. Reagents are products used in hospital laboratories to detect certain characteristics or abnormalities in blood samples. These products are available throughout the world.

Tissues & Cells provides donated human cell and tissue products for use in humans. It focuses on cell therapy (including stem cell therapy) and tissue transplantation.

Sanquinnovate is a breeding ground for ideas, for new products and services, in line with the medical needs we focus on. Within Sanquinnovate, the ideas are taken up across the divisions and developed further into business cases, if necessary with external partners.

PIBe processes plasma into intermediate products that Plasma Products and other pharmaceutical companies further process into plasma-derived medicines.

Sanquin Oy is responsible for the marketing and sales of Plasma Products' plasma products in Finland.

We welcome our donors to the various locations where they are able to give blood or plasma voluntarily and without payment. We test blood donations for various infectious diseases at our headquarters in Amsterdam.

1. BLOOD BANK

DAPHNE THIJSSEN-TIMMER
Member of the Executive Board, Director of the Blood Bank and Managing Director of Tissues & Cells

An overview

“On 13 December 2016, I became director of the Blood Bank and a member of the Executive Board. I am the first woman on the Sanquin board and also relatively young – both things for which I receive many positive reactions. I hear from female employees that they find it very inspiring; it gives them the feeling that they too can continue to grow. It's great that I can set an example for other ambitious women.

Although I was already familiar with the Blood Bank – I was a member of the management team in my previous position and have worked for Sanquin for more than 13 years – I was still pleasantly surprised by the multitude of activities that people in this division carry out in addition to the primary process of blood collection. One example is the several employees who take part in European blood collection working groups. In this way, Sanquin maintains good international ties with other organizations in its field of expertise. Developing eye drops from donor serum in order to help patients with extremely dry eyes is also a wonderful project. This in turn demonstrates our innovative strength and the importance of continuing to search for new products and services.

Last year we implemented two new donor screenings: a hepatitis E virus test and a test to determine donor ferritin levels. The introduction of ferritin screening among donors was particularly exciting. We are the first blood supply organization in the world to routinely perform this screening. Thus far there is very little experience in this area, and the whole world is looking over our shoulder. It is up to us to carry out screening in the best possible way and to set the right limit values for donors to donate. We want to prevent our donors from becoming iron-deficient, but at the same time we need to ensure that there are sufficient donors to maintain the blood supply.

In addition, we have invested a great deal of energy into IT modifications. This is a difficult and slow-moving process, due firstly to the desire to digitize quickly and secondly to the large number of requirements that are placed on the new applications. Good coordination between the supplier, IT and the Blood Bank is crucial in this respect. This is why we have invested heavily in the quality of the collaboration and the processes to make adjustments. In 2018, we will begin to see the benefits of our efforts: the eProgesa software package has been updated, the donor web portal that allows donors to access and modify their data will go live this spring and eDRM (the system for communicating digitally with donors) is also on its way.

I am very proud of the new credit arrangement that we have put in place with the hospitals. By making better agreements with each other about the delivery and return of our blood products we prevent a lot of waste. This was already made clear from the pilot project that we carried out. It is great that we have been able to achieve this with various parties in the health care sector through good collaboration.

Finally, I would like to pay tribute to all the collection employees at our locations throughout the Netherlands, who do their work - day in and day out – with great commitment. They really value the donor, which I noticed when I visited a Donor Center on World Blood Donor Day. I heard from donors how they are always so kindly received, and that made me very happy! Our collection employees are Sanquin's image to the outside world. I am proud of the professionalism, responsibility and enthusiasm with which they do their work."

Unique encounters

Blood and plasma donors give a unique gift. On the annual World Blood Donor Day (June 14) they are thanked for their voluntary and selfless donations. In 2017 Sanquin focused this day on the meeting of donors and recipients. At least 53 blood and plasma product recipients came to the Donor Centers to thank donors in person for their donation. They were able to talk to each other about what it means to be a donor and what it means to be dependent on blood or plasma products for life as a patient or to have been saved by them in an acute situation.

Score 8.3

Sanquin regularly polls donors about how satisfied they are with the organization and their donation experiences. In 2017, we once again conducted a donor satisfaction survey.
704 donors participated (out of 2,000 donors approached) by completing a questionnaire on topics such as customer-friendliness, communication and overall perception. This survey resulted in an overall rating of 8.3 for Sanquin (compared to 8.5 in the previous survey done in 2015). Compared to the survey in 2015, donors indicated that they were happy with Wi-Fi at the Donor Centers, as it gave them something to do while they were donating. It is also striking that the 50-70 year-old demographic in particular was very positive about Sanquin's social media activity. Points which were highlighted for further attention include giving the donor even more personal attention and that we do not come across as an innovative organization.

Overall rating 2017:
8,3

Overall rating 2015:
8,5

Glenn (28) developed lymphoma and has been cured thanks to many bags of blood and a stem cell transplant. "I think that it's very special that someone else has given me their blood."

MSM policy

Since the end of 2015 Sanquin has had an expanded donor selection policy for men who have sex with men (MSM). No longer permanently excluded from donating, they may now donate if it's been 12 months since their last sexual contact. This policy adjustment yielded several hundred first-time donors in 2017.
In the same year, the amended policy was reviewed by the Board of Human Rights. In March 2017, the Board ruled that epidemiological data and scientific knowledge show that in the Netherlands, MSM presents a high risk of serious blood-borne infections, such as HIV. In addition, the Board found that the 12-month waiting period is scientifically justified and that this period is applicable after other sexually risk behavior and is common in other countries to ensure the safety of blood product recipients The Board came to the conclusion that a temporary exclusion of MSM for a period of 12 months is necessary in connection with public health and that Sanquin makes no prohibited discrimination on the grounds of sexual orientation.
At the end of 2017, England and Scotland further amended their donor selection policies for MSM to exclude men from the last MSM contact for 3 months instead of 12. In other European countries, including the Netherlands, there is still insufficient data available to implement such a policy change. In addition, Sanquin and the Ministry of Health, Welfare and Sport have agreed to wait for the recommendations from the Council of Europe. These recommendations concern blood donation by persons at high risk of blood-borne infections and are expected sometime in 2018.

FLOW continues

In 2017, the Blood Bank made a great deal of progress with the FLOW project, which was launched in 2016. FLOW is a project to design the work processes as smartly and efficiently as possible. This project is carried out using the LEAN Operational Excellence methodology, for which several Sanquin employees were trained as so-called Green and Yellow Belts. A Green Belt learns to define the process, to make it measurable, to analyze, and to suggest and ensure improvements are made. A Yellow Belt is mainly there to stimulate the awareness of LEAN among colleagues.
The figures from 2017:

- An in-house Yellow Belt training course has been developed so that all Blood Bank employees can be trained in the coming years.
- 105 people attended a Yellow Belt training course; 19 people a Green Belt training course.
- 4 projects and 3 kaizens (small projects) were carried out.
- The 'LEAN in the Workplace' pilot project was launched in four departments. At the beginning of 2018, LEAN was rolled out to 20 additional departments.

The projects have led to a number of improvement initiatives, the implementation of which will continue into the first quarter of 2018. Visible results of FLOW include a better atmosphere, an understanding of each other's work, more involvement, a better distribution of responsibilities and a quicker approach to minor disruptions and problems. A practical example is the kaizen 'Donor Enrolment'. It always took a lot of time for employees to

select the right printer in the program. By adding the KAF printer per employee per cluster, starting up now takes much less time, saving approximately 30 minutes per day.
Also in the Not-For-Transfusion department (i.e. blood products used for research, among other things), major improvements were achieved with simple modifications. For example, the department made savings of thousands of euros a year by no longer processing certain products in the morning but rather at night, so that they can be transported to the hospital with the regular 7.30 a.m. supply journey, saving additional trips.
Another example is a smaller 'Not-For-Transfusion' sticker on the bags of donor blood. The old sticker covered the product code and first had to be removed in order to be scanned, which was an additional operation.
In the coming years, FLOW will continue with new projects, kaizens and LEAN on the work floor for continuous improvement.

HEV Screening Implementation

A Sanquin study has shown that approx. 1 in every 1,000 blood donations is infected with the hepatitis E virus. In some recipients of transfusions, in particular in patients with weakened immune systems, this blood-borne infection can lead to serious health problems such as liver inflammation and liver failure. Therefore, in addition to the infectious diseases HIV, syphilis, HTLV-I/II and hepatitis B and C, Sanquin has been testing blood donations for hepatitis E (HEV) since July 2017. In healthy people with strong immunity, hepatitis E infection is usually harmless and symptomless. The virus is only present in the blood for a short time and completely disappears from the blood within three months because the body makes antibodies. Donors who test positive for hepatitis E are informed of this by letter and are not allowed to donate for three months.

Implementation of Ferritin Measuring

The human body needs iron for the production of red blood cells. Donors lose a small amount of iron in a whole blood donation via the iron-bound hemoglobin (Hb), and this is replenished in healthy people through food intake. If this is not sufficient, iron deficiency will lead to health problems. Sanquin wants to ensure donors are healthy, and wants to retain our (regular) donors for the donor population. To be sure of sufficient iron with a whole blood donor, we therefore measure the Hb value with each donation. If Hb levels are low, donors are temporarily excluded from donating. However, global research on blood donors has shown that Hb values can be adequate even while a decline in iron storage has occurred. It turns out that the amount of ferritin – a protein that makes iron binding during storage in the liver and bone marrow - in the blood is a better measure of the amount of iron in the body. In September 2017, Sanquin therefore began to phase in an additional measurement of the ferritin content at a number of donor centers. The measurement takes place with first-time donors and regular whole blood donors who come to donate for their 5th, 10th, 15th time, etc.
Sanquin is the first Blood Bank in the world to introduce regular ferritin measurement. Depending on the result, the donation is postponed for a certain period of time and/or the donor is called up less frequently. Through this new policy, we expect to detect a serious reduction in the donors' iron supply sooner and that approximately 10% of donors will need to postpone their donation due to the screening.

The ferritin measurement takes place with first-time donors and regular whole blood donors who come to donate for their 5th, 10th, 15th time, etc.

Toos (62) has been donating blood since her 20th birthday. "I thought, I just have to do this", she explains to recipient Glenn (28). "I know it's a necessity."

New eye drops

Sanquin helps patients who suffer from extremely dry eyes through the development of a new blood product: eye drops based on serum processed from donor blood. We do this in collaboration with the company mu-Drop, which has designed a revolutionary new applicator for the administration of very small eye drops, so-called micro drops. In 2017, a clinical study was started in which eye drops from donor serum (allogeneic drops) are compared with eye drops made from a patient's own serum (autologous drops). This study will be completed in 2018, after which a follow-up study will investigate whether the administration of this new product in micro-samples is better than the administration of regular large eye drops.
Sanquin set up the production process for this new blood product in 2017. We have, for example, established the shelf life of the eye drops, established donor requirements and set up the logistics chain. After completing the second clinical trial in 2018, we will be ready to deliver the eye drops to the patients who are taking part in the study and who appear to benefit from the drops. A separate group of donors will be approached for the serum eye drops; donor recruitment and serum collection have begun and the initial reactions from donors are extremely positive. One in five donors approached responded positively to the question of whether they would like to donate serum regularly for serum eye drops.

Credit Arrangement for Hospitals

In 2017, on the advice of the National Council of Users, Sanquin's Executive Board adopted the new national regulation on uniform crediting and logistics for short shelf-life blood products. This puts an end to all individual agreements for crediting and stimulates more efficient use of blood products.
Under this arrangement, all hospitals are classified into five categories on the basis of the gross annual consumption of platelets products. The same agreements apply to the delivery, return and crediting of blood products and the distribution of the costs of the journeys for each category.
From April 2016 to March 2017 a pilot was conducted with the new crediting arrangement at all hospitals (98 locations). During this pilot year, the percentage of platelets that expire in the hospital fell to 6%: a decrease of at least 3.9% compared to 9.9% in 2014 (that percentage may be even higher, the number of platelets that expired in that year is not known for all hospitals).

Donor Doctors

On Saturday, 4 February 2017 19 donor physicians – including a number of Sanquin physicians – received their registration as 'Profile Physician in the field of Donor Medicine'. Donor Medicine was recognized as a medical discipline by the Royal Dutch Medical

Association (KNMG) in 2014. These 19 donor physicians are now the first in the Netherlands to be registered in Donor Medicine.

Good Practice Guidelines

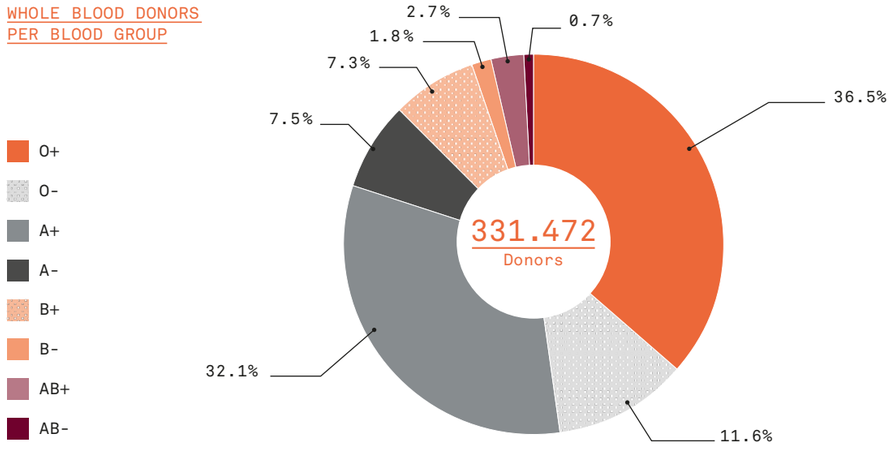
In recent years Sanquin has worked with other European blood supply organizations to draw up an additional European directive for blood banks on behalf of the European Commission. These *Good Practice Guidelines (GPG)* entered into force in February 2018. The GPG is very similar to the pharmaceutical GMP (Good Manufacturing Practice), but in some respects has been made more specific for blood banks and can therefore be used more effectively within the Blood Bank. This GPG defines the quality requirements that all work carried out within the Blood Bank must meet. In 2017 we investigated the extent that Sanquin's own Blood Bank already complies with the GPG. This review was finalized in February 2018, and it was concluded that compliance is fairly good, there are still places to tighten up.

Inspection

In addition to the biennial visits to a number of donor centers, the Health and Youth Care Inspectorate (IGJ) visited the Blood Bank locations in Nijmegen and Amsterdam in 2017. These inspections – still in line with the old directives – were carried out satisfactorily with only a few points for improvement. Another inspection will follow in 2019, this time in accordance with the new Good Practice Guidelines.

The Good Practice Guidelines sets out the quality standards that all work within the blood bank must meet.

WHOLE BLOOD DONORS PER BLOOD GROUP



KEY FIGURES FOR BLOOD SUPPLY IN THE NETHERLANDS

* Excluding donors who are registered but who have not yet donated

Donor population

	2017	2016	2015	2014
Number of registered donors	331,472	342,600	343,158	371,088
Number of recorded donors*	324,748	331,588	330,895	363,878
Donor frequency whole blood donors per year	1.50	1.50	1.60	1.44
Donor frequency plasmapheresis donors per year	5.40	5.20	5.10	5.10
Donors per 1000 residents	19.40	20.18	20.30	22.05

Number of donations

	2017	2016	2015	2014
Total number of donations	721,203	726,565	720,251	721,012
Number of whole blood donations	410,616	420,163	435,405	441,503
Number of aphereses	310,587	306,402	284,846	279,509

Use

	2017	2016	2015	2014
Use of red blood cell concentrates	406,938	418,384	427,685	428,245
Number of platelets (from whole blood in donor units)	249,870	252,775	251,625	262,848
Number of units fresh frozen plasma	1,499	2,491	7,221	55,056
Total kilos of plasma (incl. aphereses) delivered to Plasma Product Division	316,662	315,817	310,404	296,915

Relationship between donors and supplies of red blood cells

	2017	2016	2015	2014
Whole blood donors	266,875	275,877	276,981	312,206
Supplied erythrocytes	406,938	418,384	427,685	428,245

Whole blood logistics (in donor units)

	2017	2016	2015	2014
Whole blood donations	410,616	420,163	435,405	441,503
Red blood cells to hospitals	404,678	418,384	427,685	428,245

In our plasma factory we extract proteins from donated plasma to make 12 different medicines for as many as 100 diseases. This is an extremely complicated process involving high-tech equipment under the strictest hygiene standards.

2. SANQUIN PLASMA PRODUCTS B.V.

PIETER DE GEUS
Member of the Executive Board and Director of Sanquin Plasma Products BV (SPP).

An overview

"SPP got off to a good start in 2017. The mid-year figures were above expectation because we all worked very efficiently together, with little disruption. Unfortunately, in the second half of the year, we lost our lead due to disruptions in the process. We even had to close the factory to investigate the cause of the problems. As a result, we were temporarily unable to meet the market demand for some of our medicines, which is of course very inconvenient for our patients. Fortunately, together with the customers, we were able to find solutions that will guarantee the continuity of the treatments.

What the disruptions have emphasized once again is the importance of robust production processes. We are therefore doing everything we can to structurally improve this robustness. Our Culture Program comes in handy in this respect. If you want to make structural improvements, a 'holistic' approach is appropriate; thus not always tackling individual weak links when there is an incident, but looking at the entire chain and making sure that everyone bears responsibility for it. I am pleased to note that our culture is being promoted and applied where necessary by an increasing number of colleagues.

We're also proud of the following:

- The serialization project to provide each individual package of our medicines with a unique code went very well. The first production line to serialize was completed in 2017, well on time and within budget. An impressive achievement by all parties involved!
- In the complex and rapidly changing landscape of the pharmaceutical industry, we have defined a new strategy for SPP for the medium and long term. Key here is the renewing of our own product portfolio, which we've already started. In 2017 we worked on a process for the 10% formulation of our human normal immunoglobulin medicine. Due to a twice as high concentration of the proteins, administration to the patient can be much faster. In early 2018, we are going to launch this new product on the market.
- We have set up the new Project Support Organization department to provide project-based support for all strategic changes within SPP. The new department has a good mixed team of enthusiastic young and more experienced professionals. This employee team has gotten off to a great start and are playing an increasingly stronger role.
- Compliments are also due to the employees of the Production Support & Development department, which had to deal with organizational concerns in the past and was confronted with a considerable reorganization in 2017. They endured it well and they can be proud of that.

Finally, I would like to focus the spotlight on the high degree of flexibility of all those who work in SPP. As mentioned above, we operate in a rapidly changing market, which in the Production department, for example, means that schedules are sometimes adjusted in the short term. We did this in close consultation with the employees concerned and the Works Council, and we have succeeded time and time again. That's where I think the strength of SPP lies: everyone wants to make the extra effort in the interests of our organization, and ultimately in the interests of the patient.

Culture Program - Phase Two

Sanquin Plasma Products (SPP) aims to achieve an organizational culture of joint accountability, in which everyone takes the responsibility that is necessary to achieve the agreed core results. It is for this reason that it launched an internal Culture Program in 2016 to support performance improvements in the organization. This program entered its second phase in 2017. Each team followed a workshop with their own manager on how to integrate the new culture into their regular work.
The Culture Program has been enormously successful, as evidenced by, among other things, the higher appreciation that employees gave to the internal culture of SPP during a survey at the end of 2017: a rating of 3.1 on a scale of 1 to 5 (in a previous survey the rating was 2.9). Furthermore, many people indicated that they noticed that culture has become a clear priority within the organization.

Culture has become a clear priority within our organization.

Brazilian compliments

In February of the reporting year, the Brazilian health inspectorate ANVISA visited SPP's production facilities. The service came in because of the use of the human normal immunoglobulin and albumin medicines in the Brazilian market and to assess the application for the registration of two new medicines for Brazil: C1 esterase inhibitor and Prothrombin complex. Both parties were completely satisfied with the visit. The ANVISA inspectors complimented SPP on the fact that no abnormalities were found. As a result, a few months later the registrations for C1 esterase inhibitor and Prothrombin complex product could be submitted. In addition, the positive inspection highlighted that SPP is inspection-ready, which in turn is an important element of the compliance (with the regulations) that SPP is working towards.

Traceable medicines

In order to prevent criminals from marketing falsified medicines, the EU will introduce legally binding serialization by February 2019. Each individual medicine packaging must then have a unique code, traceable anywhere in the EU. Serialization applies not only to the EU but also to other countries of the world, where the timelines for its introduction are often different. In order to be well prepared, SPP already started adapting the three packaging lines in 2017. An investment of millions, but necessary in order to be able to continue to supply our products in the future. By the end of 2018, all packaging lines will have to be 'serialized'. In addition to a batch number and expiry date, each package will also bear a unique serial number and a product code (Global Trade Identification number) that together form a unique code. These 4 pieces of data are also in the newly added 2D code.

The fast-growing demand for C1 esterase inhibitor placed a heavy strain on the available production capacity.

Shire Collaboration

Since 2008, the American company Shire has commissioned SPP to manufacture C1 esterase inhibitor for patients with hereditary angioedema in the United States and since 2011 for patients in Europe. Hereditary angioedema causes life-threatening swelling of the body due to the accumulation of fluid. The demand for C1 esterase inhibitor has been increasing in recent years, placing a heavy strain on the available production capacity. In consultation with Shire, the opening up of additional capacity in Shire's existing production network has begun. Sanquin's aim in doing so is to keep its own production capacity as busy as possible. Sanquin depends on Shire's insight into the market, where the introduction of new therapies may play a role.

SPP Production Backlog

SPP was plagued by problems in its production facilities in 2017. The problems were such that the plant was shut down for a number of weeks in order to take corrective action and prevent recurrences. To err on the side of caution, the batches made in the previous period were quarantined for further investigation. This investigation showed that the quality of the product was not affected by the production problems. After that, the factory was able to restart routine produce. The batches were taken out of quarantine and delivered to the market.

As a result of the delay, Sanquin was unable to deliver all products as agreed. In many cases it was possible to rely on the inventory available in the distribution channel and in some cases the competitor offered a solution. In consultation with customers, solutions have been found to ensure the continuity of patient treatment. That, after all, remains our primary concern.

Some patients will lose Sanquin Home Service

The Sanquin Home Service (Sanquin Thuis-Service – (STS)) was established on the basis of our involvement with patients who use our medicines. These medicines (including immunoglobulins) usually have to be administered subcutaneously or intravenously, and thanks to the STS they can be administered to patients in their own environment. The Home Service coordinators coordinate with the patient the way in which the treatment

can be carried out: by the patient themself, a family member or a nurse. Since 2005 there have been more than 1,350 patient registrations for our Home Service.
In the autumn of 2017 the health insurer VGZ issued a tender for the supply of immunoglobulins. This tender was won by the Radboud Pharmacy, which acted on behalf of the Collective Policlinic Pharmacy (CPF) in which all Dutch outpatient clinics are represented. As of April 2018 only these clinics are allowed to declare immunoglobulins, pumps with administration materials and nursing care to VGZ. This change is causing a great deal of concern for patients who have received their product, aids and nursing care via the STS over the past 13 years. 20% of STS patients are insured via VGZ.

Postponement of new building

The planned expansion of the production facilities by means of the construction of 'Building P' was cancelled in 2017. SPP's management team changed its strategy for the coming years and expects to be able to make targeted (extra) investments in existing buildings and equipment with the current production facilities for the time being.

Greater attention to safety

In order to improve safety on the work floor, SPP appointed its own safety coordinator in 2016. In each production department, an employee has been appointed as the Local Safety Officer to support the coordinator in their work. In 2017 a number of non-production departments were also appointed a Local Safety Officer. Moreover, safety has become a fixed item on the agenda of the MT meetings and various departmental meetings, in order to highlight that responsibility for safety starts with management. As safety awareness has grown, the number of reports of dangerous situations and near misses has also increased in the past year: 125 reports were made in these categories in 2017. The number of reports of accidents involving actual injuries and absenteeism remained the same: 16 in both 2016 and 2017.

A little better every day

The Operational Excellence (OpEx) department helps SPP employees to continuously improve their work processes. 'A little better every day' is the motto by which OpEx uses the Lean Six Sigma methodology. In this way employees are trained as *Green Belts and Yellow Belts* to better define and analyze problems and to permanently solve them. Most of the projects completed in 2017 were aimed at reducing the lead-time for releasing batches. A thorough process analysis and the removal of unnecessary steps reduced the turnaround time by 30%. In addition, a program was launched at the end of 2017 to make production processes more robust, which should ensure that SPP delivers the products on time and without disruption. Together, the efforts of all departments yielded the following figures in 2017:

- 35 kaizens (small improvement projects) were carried out.
- 15 major improvement projects were started (most of which will be completed in 2018).
- 112 employees attended a Yellow Belt training course.
- Two in-house Green Belt training courses with 12 employees each were started, the first was successfully completed and the second will be completed at the beginning of 2018.

At the end of 2017,

876

active patients benefited from the Sanquin Home Service.

Thanks to the Sanquin Home Service patients can be administered our medicines in their home environment.

On their first day at work, our new colleagues take the 'First day at SPP' program.

Training & development

The Training & Development department was set up in 2017 to improve the professionalism of the training and retention of employees. The four employees of the department supervise, among other things, SPP employees who follow the Process-Technique professional training course.
The department has set up the *First Day at SPP* program for new colleagues, in which they receive a warm welcome on their first working day, including a guided tour, safety instructions and an e-learning module on GMP documentation. In 2018, the *First Day* will be extended to a *First Week* for new operators. During the first week, they will participate in various courses such as keeping the working environment clean, correct working clothes and the correct hand-washing method. The department also develops refresher courses in the areas of safety and hygiene for employees who have been in service for some time.

Better results with projects

The new Project Support Organization department, abbreviated to PSO, worked hard last year to get the total portfolio of projects within SPP in order. By freeing up the correct and available people, and making the budget and the planning more transparent, projects can be successfully carried out and completed. An important distinction is made between strategic projects and operational projects (in the line).
Several projects had been ongoing for a long time but were not completed because too many projects shared the same resources simultaneously. A number have been discontinued and a number have continued under the leadership of PSO. Several important results:

- The replacement of the Laboratory Information Management System (LIMS) was delayed by one year. After drawing up a new project plan and renewed cooperation with IT in this project, the pilot phase can be successfully completed in March 2018.
- The successful shortening of a number of process steps in the production of Nanogam normal human Immunoglobulin has led to a 50% increase in production capacity.
- Within the *supply chain*, a *product costing* structure was introduced into SAP in order to calculate cost prices more accurately and efficiently, resulting in better financial analyses and decision making.

In 2017, to be able to implement innovative ideas, we created Sanquinnovate. A testing ground where we translate promising research ideas into new products and services.

3. SANQUINNOVATE

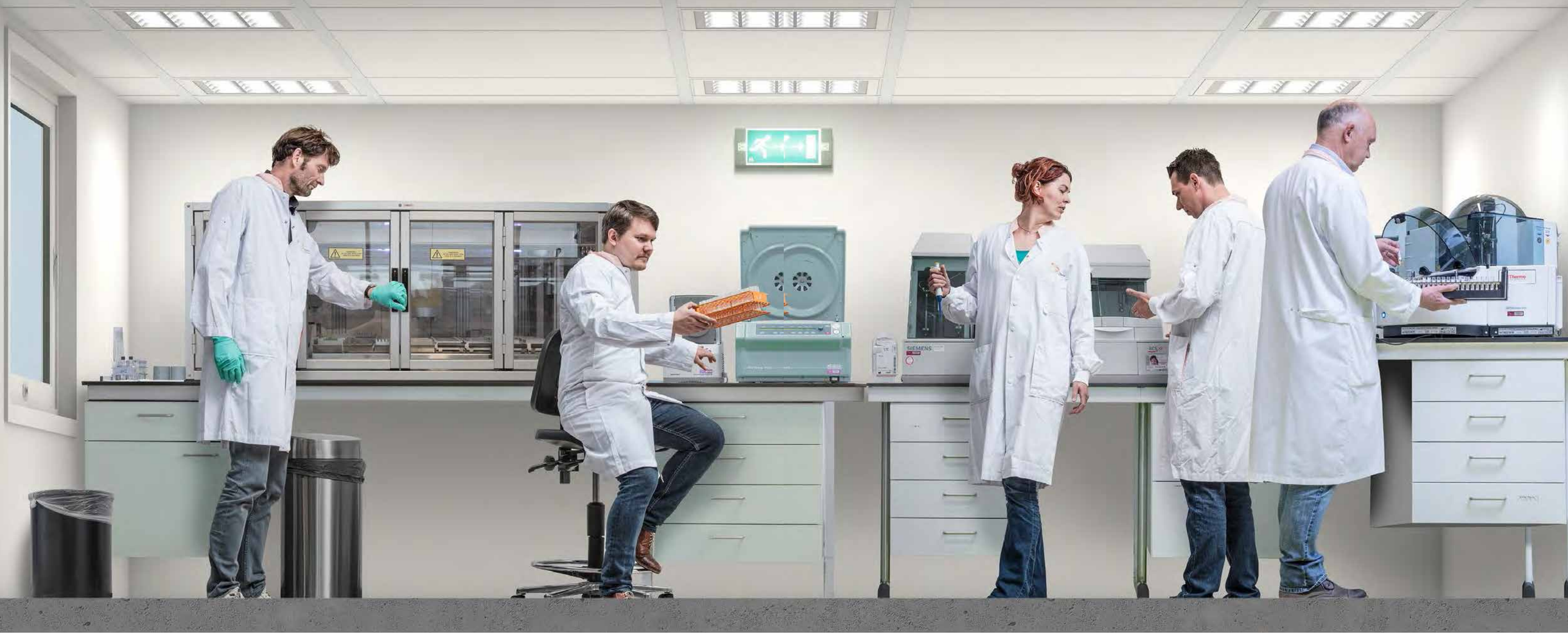
Sanquin has come up with an innovative technology for treating patients with sepsis (blood poisoning).

Sanquinnovate

Innovations are of vital importance to Sanquin's future success. We are a knowledge institute, but we still seize too few opportunities to convert our knowledge into concrete services and products for the healthcare sector. We would like to change that. It is not for nothing that our mission is: together with the donor, we ensure a better life for patients. Sanquinnovate was set up as a separate company in 2017 to translate promising research ideas into concrete products or service development. This company serves as a breeding ground for ideas for new products and services, in line with the medical needs we focus on. There are plenty of good ideas within Sanquin, but in the past these often did not receive the attention they deserved because other permanent operations had priority. Within Sanquinnovate, the ideas are taken up across the divisions and developed further as a business case, and where necessary, with external partners.

SanSepsis

Sanquin has come up with an innovative technology to remove bacteria that are bound to red cells in the blood with a filter. This can be very important in the treatment of patients with sepsis (blood poisoning). In the Netherlands, approximately 3,500 patients die every year as a result of sepsis.
In 2017, we launched a partnership between Sanquinnovate and NLC, a company that brings healthcare innovations to the market, to further develop our sepsis technology and to deploy it commercially. In 2018, together with the AMC, we are preparing an initial clinical trial to test the technology on sepsis patients.



We conduct specialist laboratory research for hospitals, insurance organizations, and pharmaceutical companies, etc. Thanks to the close collaboration between diagnostics and research within Sanquin we use the latest scientific knowledge to develop new diagnostic tests.

4. DIAGNOSTICS SERVICES

Sanquin Diagnostics BV

Sanquin's diagnostic operations are both public and in line with the market. In response to the risk management desired by the Ministry of Health, Welfare and Sport, we have implemented a strict separation between public and market operations. This went into effect as of 1 January 2017: Sanquin Diagnostics BV has been active as an independent entity within the Sanquin Foundation since that date. All diagnostic services at Sanquin are performed under one roof, so that efficiency, innovation and quality benefits are maintained.

Two Markets

Sanquin Diagnostics BV's operations are shifting from a supply-driven market to a more demand-driven market. In order to determine our position on this, we carried out an initial market survey in 2017. Sanquin Diagnostics is an innovative player in the market for both patient diagnostics and screening tests, as well as tests that are of interest to pharmaceutical & biotech companies (Pharma & Biotech). Patients are increasingly diagnosed on a regional level, where diagnostics and treatment are organized around the patient. Sanquin Diagnostics can continue to deliver on its social and other services at the national level through strategic collaboration with regional parties and a focus on its added value for patient diagnostics. Additionally, there are opportunities in the Pharma & Biotech market. This market is a growth market in which Sanquin, with its product portfolio of Biologics, Monocytes Activation Test and Immuno-monitoring Services, has already taken its first steps.
A successful strategy in the patient care market differs from that of the Pharma & Biotech market. As a result, the organizational structure will have to be updated in 2018 to ensure optimal alignment with the two markets.

United forces

OLVG Sanquin Labcombinatie is the new name under which Sanquin and the OLVG hospital in Amsterdam will continue their collaboration in 2017. Both organizations have retained their own identity and independence, but thanks to our cooperation we can offer a broader range of diagnostics and work on a larger scale - and therefore more cost-efficiently. For the customer, OLVG Sanquin Labcombinatie acts as a single organization, with a complete package of high-quality services. The OLVG laboratories focus on both basic and more complex research in the fields of clinical chemistry, medical microbiology, pathology and molecular diagnostics. Sanquin's laboratories specialize in complex and low-volume diagnostics, which focus on immunology, molecular diagnostics, immunohematology and blood group research for transfusion medicine. Sanquin and the OLVG want to further expand the collaboration with other laboratories in the region in 2018.

Laboratory Closures

Sanquin closed three diagnostic laboratories in 2017 because of falling revenues and the too-high costs to maintain its business operations. These were the IHD laboratories in Groningen and Rotterdam and the Kinship Research Laboratory in Amsterdam. The IHD laboratory in Amsterdam has taken over a large part of the work from Groningen and Rotterdam.
The 3 employees of the Kinship Research Laboratory were able to be redeployed within Amsterdam. For 11 employees in Rotterdam and 3 employees in Groningen other work was found within Sanquin or at various hospital laboratories. Sanquin was still seeking new workplaces for the other employees at the beginning of 2018.

Thanks to our collaboration with the OLVG hospital we are able to offer a broader package of diagnostics and a more cost-efficient way of working.

Sanquin Diagnostics is an innovative player in the market for both patient diagnostics and screening tests, as well as tests that are of interest to pharmaceutical & biotech companies.

To screen blood you need a reagent: a substance that reacts with another substance to thereby indicate, for example, a blood group or the presence of a virus. We produce various reagents which contribute to patient diagnostics and fundamental & clinical research.

5. REAGENTS

Growth

Reagents is the fastest growing organizational unit within Sanquin Holding. Since 1 January 2017, this department has also been an independent entity within the Sanquin Foundation. In 2017, the company achieved a turnover of 17 million euros, an increase of 7.6% compared to 2016 (16 million euro). The reason for this is the strong increase in demand for immune reagents. Growth is expected to continue in the coming years. Reagents is receiving more and more orders for tests and the number of customers is increasing. We expect to be able to continue supplying in the future as well, because our reagents have also been validated on the new generation of equipment. However, increasing competition means prices are under pressure.

Preparation

2017 was also marked by the preparation of all Reagents departments for future growth and for new regulations. For example, we are dealing with the In Vitro Diagnostic Regulation (IVDR) adopted by the European Commission, which will have a major impact on the way diagnostic organizations work. Last year, we started preparations to comply with these new directives in a number of years' time.
We also began the construction of a new quality management system in order to comply with the stricter regulations of the new ISO 13485:2016 standard and the American Food and Drug Agency (FDA). This is necessary because at the end of 2017 Reagents registered a number of immune reagents with the FDA for supply to the US market.

The MAT is good news for rabbits: every test sold saves the life of one rabbit!

Less Animal Testing

In 2016 Sanquin introduced a new lab test that detects pyrogens (fever-inducing substances originating from bacteria) in pharmaceutical products. Thanks to this so-called MAT (Monocyte Activation Test), pharmaceutical companies no longer have to perform tests on rabbits. Diagnostics was already carrying out the tests for third parties. In 2017, Reagents, in collaboration with Diagnostics and Research, also made the tests available for sale to third parties so they could carry out the tests themselves. There is a lot of interest in the MAT and we expect strong growth here as well.

C24 back on the market

At the end of 2017, we relaunched the fully automated blood group analyzer, Magister C24, on the market. The C24 has been specially developed for small to medium sized laboratories to perform fully automated blood group determinations. The improved software of the C24 was available at the end of 2017. The demand for the C24 is high, and we expect growth in the number of orders for the instrument and the corresponding reagents in the coming years.

Stem cell products derived from blood and bone marrow are processed and stored for patients requiring a stem cell transplant.

6. TISSUES & CELLS

Bone Bank transferred to BISLIFE

On 1 September 2017 Sanquin transferred the Bone Bank to the tissue bank BISLIFE in Leiden. This will allow the continuity of the tissue supply in the Netherlands in terms of bone transplant to be better guaranteed. The bone bank operations that took place in Nijmegen will be continued under the responsibility of BISLIFE, which rents the spaces in Nijmegen from Sanquin. In Groningen, the bone bank operations have been discontinued. Sanquin and BISLIFE's processes are very similar in regard to the reception, processing, storage and distribution of donated bone and cartilage tissue from living donors. By taking over Sanquin's bone bank operations, BISLIFE can further optimize the implementation of these processes.

Cord Blood Bank

The expansion plans for the Sanquin Cord Blood Bank (NBB) in Leiden were adjusted in 2017. Growth was planned to ensure costs were covered, but due to market changes this is no longer realistic. Therefore, the Cord Blood Bank cannot operate cost-neutral in the short and long term. The main reasons for this include the sharp decline in the demand of cord blood transplants in recent years and the high fixed operating costs. In addition, there has been a reduction in the use of cord blood for clinical and fundamental research.
In order to be able to maintain the provision for cord blood transplants as well as the knowledge and expertise, Sanquin has opted to keep the provision in place, but to collect considerably less. The Cord Blood Bank in Leiden will be dismantled and the operations continued in a reduced form at the Cell Therapy Laboratory (LCT) in Amsterdam.
The closure of the Cord Blood Bank in Leiden is planned for September 2018. Some of the employees will join the LCT, and Sanquin's Ongoing Redundancy Plan will be in place for the other employees.

It is essential and of life-saving importance to increase our knowledge about the workings of blood, the immune system and disease through fundamental and applied research. Over 100 scientists are involved in this on a daily basis.

7. RESEARCH & LABSERVICES

RENÉ VAN LIER
Member of the Executive Board and Director of Research & LabServices

An overview

"2017 was a fruitful year for research within Sanquin, with 263 publications, 17 PhDs and the appointment of a new professor: Timo van den Berg. Timo holds a chair at the VUmc in the field of immunotherapy against cancer. The treatment of cancer is one of Sanquin's research areas. The appointment is special because this is the first time that a professor has been appointed to the VUmc from within Sanquin. Our academic connections in Amsterdam have always been via the AMC. Both university medical centers will merge in the summer of 2018. We at Sanquin would like to continue our optimal working relationship with the new organization, which is why we are very pleased with the extra connection to the VUmc through the appointment of Timo as professor.

As a knowledge and research institute, we are dealing with a world around us that is constantly changing. And we need to adapt well to that world. In order to obtain sufficient funding, we must ensure that we do our research well. We must also ensure that we can apply our research concretely to products and services. The newly founded innovation company,

Sanquinnovate, is going to help us in this; we have many ideas ripe for further development. One of Sanquin's strong advantages is that we bring together diagnostic knowledge, scientific knowledge and knowledge of reagents within our organization. That produces good things:

- The development of tests in the field of biologics (medicines based on human proteins) is improving. Theo Rispens' research group is at the forefront of this field. The number of biologics worldwide is growing considerably, and it is important to monitor the functioning of these expensive medicines properly. This is not only better for the patient, who receives personalized treatment, but the costs of care can also be better controlled. Thanks to the good cooperation between Sanquin's Diagnostics, Reagents and Research & LabServices divisions, we are able to launch new tests at lightning speed and thus provide strong support for patient diagnostics. It is worth noting that in 2017, the American FDA visited Diagnostics unexpectedly for the first time. The biologics laboratory passed this five-day inspection without any findings!
- The Monocyte Activation Test, or MAT, is another good example. This test makes animal testing superfluous for the testing of medicines on fever-inducing substances. Sanquin first offered to perform the tests via Diagnostics and now also sells the tests in combination with Reagents to third parties.

I would like to finish off with a personal note. In 2017, due to the legal restructuring, we introduced a new employee representation structure: each organizational department has been given its own Works Council. The various Works Councils were quickly filled with enthusiastic members, which for me indicates that Sanquin employees feel a strong bond with our organization. As a director, I am pleasantly surprised by the good conversations we have had with the brand new Works Councils. I also notice that because of the new employee participation structure the involvement of employees in their own organizational departments has increased. This will only benefit us as an organization."

The knowledge institute for blood

Sanquin is a research-driven organization with a large number of researchers involved in all aspects of blood. That yielded the following figures for 2017:

- 17 Sanquin employees obtained their PhD.
- 263 scientific articles were published.
- 1 Sanquin employee was appointed professor. Timo van den Berg (Research Manager within the Research & LabServices division) has been appointed to the chair of 'Immunotherapy in particular the role of the non-specific immune system in tumor reduction' at the VU University. The appointment strengthens the cooperation between Sanquin and the VUmc in the field of immunotherapy against cancer.

Sanquin researchers also received various prestigious subsidies to continue their important work. These include:

- ZonMW/Translational Adult Stem Cell Research: Emile van den Akker, Carlijn Voermans – *Towards the use of gene-edited hematopoietic stem cells to treat (monogenic) disorders of the hematopoietic system.*
- H2020/International Training Network: Anja ten Brinke en Marieke van Ham – *Neuronal self-REnewal by antigen-Specific TOlerization in multiple sclerosis reinstalling the balance between inflammation and Regeneration (RESTORE).*
- NWO/Veni (Talent Scheme): Regina Stark – *Immune cells under attack.*
- NWO/Veni (Talent Scheme): Pleun Hombrink – *Local support to lung-resident memory T cell function: The importance of location.*

Sanquin researchers have been awarded various prestigious grants to be able to pursue their important research work.

7. RESEARCH & LABSERVICES

We are working with a US biotech company to develop therapeutic antibodies to fight a number of rare diseases.

Collaborating on therapeutic antibodies

In 2017, Sanquin and the American biotech company Gemini Therapeutics agreed to work together on the further development of therapeutic antibodies against a number of rare diseases, more particularly the so-called Factor H monoclonal antibody, a specific protein that ensures that the immune system works better in patients who suffer from disorders of the immune system. Sanquin has already carried out research into the effect of this protein.
Gemini has taken charge of the clinical development and initially focuses on the treatment of two conditions: Atypical hemolytic uremic syndrome (aHUS, accelerated red blood cell degradation, platelet deficiency and acute renal failure) and age-related macular degeneration (AMD). Sanquin is mainly concerned with pre-clinical research into the biological mechanisms surrounding these therapeutic antibodies in relation to these disorders.

More match opportunities for patients

Unlike with red blood cells, platelets are given to patients 'unmatched'. However, some patients produce antibodies against donor platelets. This means that transfused platelets can be broken down quickly.
If that happens, they do need to be matched. Sanquin then looks at the HLA typing: a kind of protein characteristic on a platelet. Unfortunately, it is extremely difficult to match blood platelets from donors with patients, as there are many different HLA types. Sanquin researchers have discovered that platelets from certain donors have so few HLA proteins that they are not broken down faster if antibodies are present. The donor can then be regarded as negative for that HLA protein, as a result of which the number of potential donors suddenly increases considerably.
The research was published online in 2017 (and in print in 2018) in BLOOD, a leading scientific journal in the field of hematology. This allows Sanquin to share our knowledge with blood supply organizations worldwide. In the Netherlands we have one central donor database, but in many other countries there are several donor databases that are decoupled from each other. This makes it even more difficult to find a matching donor and makes our findings all the more interesting. Once this new insight has been clinically tested, a simple test will allow it to be quickly applied in the search for suitable blood platelets.

Research can also improve the quality of life of patients by, for example, reducing the frequency with which they need to inject themselves with medicine.

Influence of blood transfusions on pregnancy

Does it matter whether a patient receives blood from a male or female donor? A study conducted by Sanquin over a period of 10 years with 31,000 patients in six different hospitals appears to show that there may in fact be a difference. Male patients under the age of 50, died earlier if they received blood from female donors who had been pregnant. No effect was seen from blood from female donors who had never been pregnant. Also, no significant difference was found in female patients when they received donated blood from women who had been pregnant. The study was published in the Journal of *the American Medical Association* in 2017. In a follow-up study in the coming years, researchers will look for causes that explain the difference.

Biologics tests do what they promise

Biologics are medicines based on human proteins that are used for the treatment of diseases of the immune system. Sanquin has developed various tests to measure the extent to which the biologics are present in the patient's blood and also any antibodies that the patient can produce against the biologics (as a result of which they become less effective). Biologics are prescribed in a standard dosage that is too high for many patients. Measuring blood values may help to reduce the frequency of administration and waste of these expensive medicines. In 2017 we published the results of a study we conducted together with rheumatology center Reade into the effects of reduced administration of the biologic, adalimumab. This study showed that for a certain reduction the drug level in the blood decreased, but the clinical effectiveness remained the same. Not only did this mean enormous cost savings per patient, but patients also reported that they were happier not having to inject the drug so often; in short, it means an increase in their *quality of life.*

Finger-prick Test – To further increase the *quality of life,* Sanquin developed a finger-prick test that enables patients at-home sampling of their blood. This saves an additional visit to the hospital, and further, before a consultation between doctor and patient, the doctor can receive the most recent values, and, if necessary, adjust the treatment immediately. In 2017, clinical research was conducted into the application of the finger-prick test with gastroenterology patients in the AMC and pediatric patients in Rotterdam. By the end of 2018, we hope to be able to introduce the test standard for patients being treated with biologics.

Breast milk – Occasionally doctors who treat young mothers with biologics ask whether we can test breast milk for the presence of the medicines. We do this gladly and free of charge, because we feel it is important to be able to reassure these patients. All diagnostic tests so far have shown that biologics are fortunately not, or only to a limited extent, present in breast milk. These mothers can safely breastfeed their children.

Rare immunodeficiency disorder explained

A few years ago a baby with a gastric hemorrhage was admitted to Emma Children's Hospital in Amsterdam. Child infectiologist/immunologist and researcher at Sanquin, Professor Taco Kuijpers investigated the child and found several symptoms that not only reminded him of a platelet abnormality, but also an abnormality of granulocytes – a certain type of white blood cell that is important in the innate defense against infections. The functional abnormality was determined, but the underlying protein defect remained untraceable. With the aid of Sanquin's mass spectrometer – a device that can be used to examine proteins very closely – it was discovered that this was a new hereditary defect. Kuijpers discussed the findings at a major international conference on immunological abnormalities, where several colleagues said they knew patients with the same abnormality. In close cooperation with these colleagues, the children's blood samples were sent and the protein defect was better mapped. In the meantime, we are working together with doctors/researchers in various countries to identify the characteristic clinical symptoms of the abnormality and to look for the best therapy. One patient has already been successfully treated with a bone marrow transplant and three other children have – after frequent consultation – been prepared for the same procedure.

Sanquin is involved in the entire chain, from donor to patient, and all stages in between with regard to blood and plasma products, transfusion medicine, diagnostics and research.

Sanquin has developed a a finger-prick test that enables patients to sample their blood at home.

Scientists from all over the world met at the Sanquin Spring Seminars to share their knowledge in the field of anemia and iron metabolism.

Sanquin Spring Seminars

In the context of 'knowledge sharing increases knowledge', Sanquin organizes Sanquin Spring Seminars every two years. Scientists from all over the world met in Amsterdam on the 20th and 21st of April 2017 for this international symposium. They shared their latest insights and therapies in the field of anemia and iron metabolism. “These are important topics for Sanquin,” says Marian van Kraaij, chairman of the Sanquin Spring Seminars. “They affect both the treatment of patients and the health of the donor. Sanquin is involved in the entire chain from donor to patient, and everything in between, in the areas of blood and plasma products, transfusion medicine, diagnostics and research. With our one-stop-shop formula, we can join forces very effectively and make progress for patients and donors. We are happy to contribute to the worldwide sharing of knowledge in the field of blood.”

European project TRANSPOSE

A European research consortium led by Sanquin will identify frameworks for the selection of people who donate blood, tissues or cells. Sanquin acts as project leader because of our expertise in the field of donor studies: why do people donate blood, what does donating do for donors, when do they stop donating and how can you best guide them?
The collection, processing and administration of blood, tissues and cells are already strictly regulated. The EU, however, wants to see the directives revised on the basis of recommendations from the field, particularly with regard to the health of living donors and ethical treatment of deceased organ donors. On 21 September 2017 we kicked off the program Transfusion and Transplantation: Protection and selection of donors (TRANSPOSE).
The project started with an inventory of how donors across Europe are selected and protected. Following the formulation of common principles, a base questionnaire for donors will be drawn up. Finally, the consortium will set up a training program for professionals in the Member States. The project must be completed by the spring of 2020.

We are happy to worldwide share knowledge in the area of blood.

The corporate support staff provide support in the areas of Communications, Human Resources, Legal Affairs, ICT, Financial Affairs and Facility Management.

8. CORPORATE SUPPORT STAFF

8.1 Corporate Communications

From Sanquin to Sanquin+

The world around us is changing rapidly. In order to remain a valuable player, we need to modernize and innovate. This requires a change in the internal culture and much greater cooperation between all departments in the organization. We want our employees to be proud ambassadors of this new Sanquin. In order to kick-off the renewal, we organized Sanquin+ week in the first week of October 2017 – a week filled with activities to inspire and motivate employees. The + symbolized 'together' and 'connection' between employees, but also between Sanquin, patient and donor. Patients turned up to share how important Sanquin's work is to them. Employees were able to experience what it is like to be a donor. They could also take part in various lectures and workshops on a variety of topics, from thinking about your work future to giving good compliments and making their own vlogs. Popular extras were the free lunch vouchers, the pink cakes and the coffee and tea prepared by a barista for the entire week.

20 years of Sanquin

In 2018 Sanquin will celebrate its 20th anniversary. This is wonderful to reflect on, both with our employees and with the outside world. After all, we are a social organization that is active at the heart of society. In 2017, our Corporate Communications department started the preparations for a festive celebration in our anniversary year. We will use the celebration to raise Sanquin's profile as the leading organization in the field of blood.

sanquin.nl or sanquin.org?

The correct answer is: both! In 2017, in addition to the existing website *www.sanquin.nl,* we built a new website – *www.sanquin.org* – which was launched at the end of the year. With the two sites we make a clear distinction between communication to donors and the general public on the one side, and to professionals on the other. In this way, we can give every target group full attention and thus better service.
Sanquin.org is the basis for more frequent and better online interaction with our customers. Researchers, lab specialists, doctors and other care providers can find everything about our products and services on the new site. In addition, the site offers the latest news, events and everything about working at Sanquin, education and Sanquin's operations.
From now on *Sanquin.nl* is exclusively focused on donors and the general public.

Gripping video series

Who are those we help? Sanquin regularly tells stories about patients who benefit from our products and services. These are very personal stories, which illustrate why it is so important for the Netherlands to have a high quality and safe blood supply. In 2017, for example, we made a gripping three-part video series about 16-year-old leukemia patient Nina, who regularly receives blood transfusions in order to undergo chemotherapy. The videos were shown on our website, YouTube, Facebook, Twitter and LinkedIn. On Facebook, we reached more than half a million people, and about a quarter of these have also watched the videos. On LinkedIn we reached about 30,000 people.

8.2 Human Resources

HeaRT for employees

Sanquin encourages its employees to develop in a direction that the organization will need in the year 2025. The labor market is changing and our organization can only survive sustainably if we give our employees more responsibility and control of their own careers. Under the name of HeaRT (HR Transformation), we have therefore launched a program to modernize our human resources policy and stimulate this change. The three strategic pillars of HeaRT are:

- Permanent deployability of employees
- Culture and leadership
- Modern and 'generation-proof' employment conditions and employee-employer relationships

In 2017, these pillars were further strengthened through various activities.

Permanent deployability

We want to encourage our employees to remain useful on the work floor for as long and as enjoyable a period as possible. Not only with a view to the increasing state retirement age, but also in order to be an attractive employer for new generations in the employment market. We did so in 2017 with the following initiatives:

We want to give our staff greater responsibility and abilities to take charge of their own careers.

Whistle to work – The campaign 'Whistle to work', launched in 2016, pays focuses on the health and vitality of employees. In 2017 Sanquin developed a separate website – www.fluitendnaarsanquin.nl ('only available in Dutch') – where employees can do tests, read health news, get discounts on sports activities or make use of (free) coaches in all sorts of areas.

The Digital Career coach – We have set up a new online coaching program for Sanquin employees: the Digital Career coach.

We focus on the prevention of absenteeism and the permanent deployability of all employees.

In addition to a website with exercises and relevant information, guidance is provided by a personal career coach who helps employees gain more insight into themselves and explore new career opportunities.

New approach to absenteeism
Because we want to focus on the prevention of absenteeism and the permanent deployability of all employees, Sanquin began working together with a new occupational health and safety service, Arbobutler, on 1 September 2017. Arbobutler uses the House of Work Capacity model in its absenteeism support. This model is based on four different components that affect your ability to work: your working conditions, your competencies, your norms and values and your health. Absentee employees have a conversation with a work capacity specialist about all these components. The goal is always to regain optimal working capacity.

- The 2017 percentages for absenteeism due to illness or are: men 4.45%, women 5.85% (illness and/or pregnancy and maternity leave) and 5.19% (illness alone)
- Lost time in 2017 in days: men 16.86 days, women 24.31 days (including pregnancy and maternity leave) and 22.68 days (excluding pregnancy and maternity leave)

Each employee has an individual development budget of 1,500 euros per 3 years to develop their own talents and thus increase their permanent deployability.

Continue Developing
Each employee has an individual development budget of 1,500 euros per 3 years to develop their own talents and thus increase their permanent deployability. By being at the helm of their own development, Sanquin employees proactively direct their own future. The budget can be used, among other things, for the new **Sanquin Academy,** which offers a variety of programs and training courses in the areas of professional development, personal development, leadership, mobility and coaching.

Generation Policy
Over the next 12 years, some 40% of Sanquin's employees will leave as they reach retirement age. That is a large group. The question therefore arose as to whether it was necessary to develop new, flexible employment conditions and HR tools specifically for this generation. At the end of 2017, the Generation Policy Project Group started to investigate whether this need exists and, if so, how Sanquin could implement this. The project group concluded that there is no *'one size fits all'* solution, but that there should be room for customized solutions. The project group will issue an advisory report in 2018.

Strategic Personnel Planning
The 'strategic personnel planning' tool was developed to provide managers with insight into future personnel requirements. This HR tool lets managers think about important internal and external changes that their department may have to deal with in the next 3 to 5 years. Managers can compare this with the current composition of their team and the potential of each employee. Various departments actively used the tool in 2017. Themes were discussed by almost all teams are:

- What are the consequences of turnover changes for the staffing of a team?
- What is the personnel consequence of automation on my team?
- How do I keep my people on board with technological change?
- What is the ideal ratio between permanent and flexible staff?

Culture and Leadership

In order to stimulate flexibility, entrepreneurship, optimism, enthusiasm, purposefulness and recognition, Sanquin is working on a new internal culture that places responsibilities as low as possible in the organization.

Future leaders

Eleven *high potentials* from across Sanquin started the internal Management Development Program in October 2016, in which they were prepared for managerial positions in the organization. After following a number of workshops on topics such as effective communication, in January 2017 the participants were divided into two groups to carry out a strategic assignment within Sanquin: a supply chain assignment for the Facility Management and Procurement, and an assignment to stimulate innovation within Sanquin. In the last six months of the project (early 2018), each MD participant began a six-month rotation contract/internship with another division. The MD trajectory of these participants will conclude in June 2018.

Fieldlabs

The Field labs were devised by the participants in the MD program in 2017 as a better way of using all the knowledge within Sanquin for improvements. In the Field labs, people from different divisions, with different expertise, come together in temporary working groups to deal with all kinds of Sanquin issues. Fresh eyes lead to a new approach, with greater cooperation between divisions, thereby strengthening connectivity. The Field labs were launched in October 2017 and quickly attracted 150 employees.

Share, Think along, Join in

Sanquin conducted an innovative employee survey in 2017. In the new approach, employees thought together, from their different perspectives, about the experiences on the shop floor and the underlying patterns that could lead to those experiences. The first part of the survey – *Share* – consisted of a questionnaire that 57% of Sanquin employees filled in (a substantial increase compared to 36.5% in 2013). In the second part – *Think along* – the results of *Share* were first discussed between management members and the **Sanquin ambassadors**: ± 100 Sanquin employees who are extra motivated to work with the necessary changes within the organization and who can involve their colleagues in this.

In 2017 we created Fieldlabs: the answer to the question how we could better apply all the knowledge within Sanquin to make improvements.

Subsequently, the results were discussed in detail with all employees in the organization and each division drew up its own change agenda for the *Join in* phase at the initiative of the ambassadors. In this third phase, the best ideas for improvement were substantively worked out. Within the Diagnostics division, for example, a 'job bank' has been set up on the intranet where people can place work orders. If one diagnostic cluster is overflowing with work while the other is exceptionally quiet, colleagues can help each other with jobs that are not departmental. Assisting other departments is also a great way to get to know each other better and to expand our own work experience.

Young Blood

The interest in Young Blood, started as a network to connect young colleagues (up to 36 years of age) within Sanquin Plasma Products, became so great that it was expanded in 2017 to include a*ll young professionals* within Sanquin. The goal is to connect, deepen and exchange knowledge, experiences and ideas in an informal and useful way. Last year, the network organized workshops on talent management and dealing with generational differences, and a meeting on corporate social responsibility-

Assisting other departments is also a great way to get to know each other better and to expand our own work experience.

8. CORPORATE SUPPORT STAFF

In 2017 Sanquin conducted an innovative employee survey: employees thought together, from their different perspectives, about the experiences on the shop floor and the underlying patterns that could lead to those experiences.

Modern and 'generation-proof' employment conditions and employee-employer relationships

Modernizing our employment conditions is important in order to remain an attractive employer on the attractive labor market, among other things.

Collective bargaining agreement negotiations

At the beginning of 2017 Sanquin started negotiations with the trade unions for a new collective bargaining agreement for the period of 2 January 2017 until 1 April 2019. It was a journey of more than a year, during which it appeared that the views of the parties involved were in some respects quite different. The trade unions wanted to stick to the agreements made by the hospitals' collective bargaining agreement (CAO), while Sanquin was looking for more flexibility in the CAO for the modernization we want to carry out as an organization. An important point for Sanquin was a different remuneration system that more logically took into account the continued growth in scale. With this new system, it will also be possible in the long term to link the assessments of employees to salary growth. Sanquin also wants to convert the current multi-choice system of employment conditions into an individual budget. This gives employees more freedom to tailor their own package of employment conditions to their stage of life and personal wishes. In April 2018 negotiations resulted in a deal, which the trade unions presented to their members. Agreements included a retroactive wage increase with effect from 1 July 2017.

From ERG to FUSS

The current performance appraisal system of Sanquin - Evaluation and Performance Conversation, ('Evaluatie- en Resultaat Gesprek', ERG) – offers too few opportunities to devote attention to the development of the employee by focusing on one interview a year. Under the new Job Performance and Evaluation System ('Functionerings- en Beoordelingssysteem', FUSS), an employee conducts three annual interviews with his or her manager: a planning interview, a progress interview and an assessment interview. The employee indicates how he or she wants to contribute to Sanquin's goals, which direction the employee wants to take with his or her own career and what is needed to achieve this. In 2017, we launched a pilot project with approximately 180 employees spread over the organization. We will evaluate the results in 2018, after which we will continue the FUSS pilot project in 2018 with a larger group of employees, with the ultimate aim of introducing it to all Sanquin units in 2019.

Digital support

To give employees more flexibility and support in arranging their HR affairs, the SAP HR personnel information system was adapted in 2017. The Performance & Goals module, for example, is an administrative support for FUSS for digitally recording agreements made and timely reminders of conversations to be held. The Employee Central module allows employees to view and (partially) adjust their own personnel data. Unfortunately, there was a delay in the delivery of the modifications, and Sanquin then decided to continue with another supplier for these modules. Performance & Goals is expected to be ready in 2018 and Employee Central in 2019.

Labor market communication
Together with Corporate Communications, the HR department began a new campaign in 2017 to promote Sanquin as an attractive employer and to recruit employees. New was the specific focus on three professional groups: quality officials, process engineers and IT professionals. Another new feature was the use of vlogs: three Sanquin employees made short, enthusiastic videos about what it is like to work at Sanquin. Together with articles, interviews and testimonials, the vlogs could be viewed on a variety of online media, such as YouTube, Facebook and LinkedIn. The campaign reached more than 770,000 people. The website, werkenbijsanquin.nl also registered almost 10,000 clicks..

Seniors Day
On 24 August 2017, we organized a Seniors Day for retired employees of the Blood Bank in the North-West region to thank them for their loyal commitment to Sanquin over many years. The 87 participants visited the Maritime Museum in Amsterdam and took a canal boat tour.
Every two years Sanquin organizes seniors days for all retired employees to thank them for having made us the organization we are today. In 2018 we will plan seniors days for former colleagues from other parts of the organization.

Sanquin organizes Seniors Day for retired employees; it is they who have made us the organization that we are today.

Numbers from Social Annual Report

Number of staff as at 31-12-2017*

		IN PERMANENT EMPLOYMENT				IN TEMPORARY EMPLOYMENT					TOTAL				TOTAL	
		Full-time		Part-time		Full-time		Part-time			Full-time		Part-time		General	
		Number	Fte	Number	Fte	Number	Fte	Number	Fte		Number	Fte	Number	Fte	Number	Fte
Males	2017	649	649.00	332	301.26	94	94.00	67	62.22		743	743.00	399	363.48	1,142	1,106.48
	2016	660	660.00	299	262.13	101	101.00	59	56.86		761	761.00	358	318.99	1,119	1,079.99
Females	2017	335	335.00	1,158	757.81	104	104.00	152	99.47		439	439.00	1,310	857.28	1,749	1,296.28
	2016	343	343.00	1,166	739.76	101	101.00	92	62.61		444	444.00	1,258	802.37	1,702	1,246.37
Total	2017	984	984.00	1,490	1,059.06	198	198.00	219	161.69		1,182	1,182.00	1,709	1,220.75	2,891	2,402.75
	2016	1,003	1,003.00	1,465	1,001.89	202	202.00	151	119.47		1,205	1,205.00	1,616	1,121.36	2,821	2,326.36

* excluding temporary workers and additional hours worked by own staff

In 2017 Sanquin staff had, on average, been employed for a slightly shorter time than the previous year: 12.61 years (2016: 12.91 years).

Years of service 2017

Years of service	Number			
	Males	Females	Total	Total 2016
≤ 1	217	278	495	405
2 — 3	202	160	362	369
4 — 5	103	92	195	179
6 — 9	164	190	354	369
10 — 14	103	231	334	386
15 — 19	125	298	423	389
20 — 24	67	168	235	236
25 — 29	63	145	208	216
30 — 34	42	100	142	126
≥ 35	56	87	143	146
Total	***1,142***	***1,749***	***2,891***	***2,821***

* incl. reassignment within Sanquin and dismissal within trial period

Staff turnover 2017

Reasons for leaving	2017		2016	
	Number	% *	Number	% *
Found job elsewhere	87	33.3	82	34.3
Personal circumstances	6	2.3	10	4.2
Labor factors	2	0.8	—	—
Unsuitability	4	1.5	4	1.7
Absenteeism without good reason	—	—	1	0.4
"Compelling reason"	4	1.5	—	—
Reorganization	—	—	8	3.3
Obu / flex / top	38	14.7	41	17.2
End of temporary contract	52	19.9	57	23.8
Occupational disability	9	3.4	5	2.1
Death	2	0.8	8	3.3
Other*	57	21.8	23	9.6
Total	***261***	***100***	***239***	***100***

Age structure 2017

Age bracket	Aantal			
	Males	Females	Total 2017	Total 2016
≤ 23	9	26	*35*	26
24 — 33	194	229	*423*	393
34 — 43	270	371	*641*	643
44 — 53	336	526	*862*	858
54 — 59	162	284	*446*	470
≥ 59	171	313	*484*	431
Total	***1,142***	***1,749***	***2,891***	***2,821***
Average age			*46.61*	46.64

The average age of a Sanquin staff member has fallen slightly.

The average age for females is slightly lower compared to 2016 (2017: 47.2 years; 2016: 47.4 years). The average age for males has increased slightly compared 2016 (2017: 45.8 years; 2016: 45.5 years). The differences are significantly less, such that the average age throughout Sanquin has increased compared to 2016.

Absenteeism due to illness – including and excluding maternity leave – in percentages

	Males	Females		Total	
		Inclusive	Exclusive	Inclusive	Exclusive
2017	4.45	5.85	5.19	4.85	5.2
2016	4.26	6.25	5.45	5.34	4.91

We want to apply our knowledge to develop more products and services for the healthcare sector.

8.3 Facility Services

Strategic Accommodation Plan

In 2017 Facility Services began drawing up a Strategic Accommodation Plan, a long-term plan to make the Plesmanlaan location in Amsterdam suitable for full use in the coming years. The building complex at the Plesmanlaan has various challenges. Several buildings are technically outdated and no longer meet today's functional needs, and many workplaces no longer meet the requirements of modern work either. In addition, departments are scattered throughout the various buildings.

The Strategic Accommodation Plan will be ready for implementation in mid-2018. In anticipation of the plan, a number of projects were started in 2017 to tackle urgent accommodation bottlenecks. For example, the IT department temporarily moved to an external location close to Sloterdijk Station in order to provide space for the internal transfer of a number of departments. The IT department will move back to the Plesmanlaan in the second half of 2018.

In 2017 we began drawing up a long-term plan to make the Plesmanlaan location in Amsterdam future proof.

Learning from problems

Due to a broken cable at British Telecom in Amsterdam on 10 April 2017, Sanquin's entire network at the Plesmanlaan location was out for several hours. Afterwards, we carried out an extensive evaluation of the problem with several departments and the network provider. Information from both technical and business sectors has been processed into a list of areas of improvement. The provision of an additional backup connection at Plesmanlaan is one of these areas of improvement, and has been deemed urgent. The need to update emergency procedures has been identified for both IT and the various business units.

Robust power supply

After a risk inventory and evaluation, it was determined that Sanquin's emergency power supply on hot, humid days was insufficient to handle the needs of the Plesmanlaan location in Amsterdam in the event of a power failure. In addition, it was discovered that there are a number of *single points of failure* in the power supply, and the flexibility of the (emergency) power supply is limited if it needs to be expanded. This is why, in 2017, Facility Services started the 'Electra' project, which will make the power supply more robust, reliable and future-ready. This project involves:

- the addition of a new emergency power system (a total of 4MVA of emergency power), which has significantly increased the emergency power output and made it more reliable;
- the construction of two new transformer sites to make the power supply more reliable and flexible;
- the construction of new 10kV rings, which will make it easier to incorporate new transformers into the power supply in the future, closer to the customer and with less impact on business operations.

8.4 IT

IT is continuously improving

IT is busy every day facilitating the work operations at Sanquin, and continues to comply with laws and regulations. Measures that IT implemented in 2017 include the following:

Easier login
Having to repeatedly log in to different systems is a thing of the past. Beginning in 2017, access to a base group of systems for which the employee is authorized is done by entering a single password.
The login process for counter employees at the distribution locations has also been considerably reduced by between 30 to 35%.

Working faster
For office workers, IT has made it possible to run programs on their own computers, which means that they operate much faster. This is a nice gain in efficiency. In addition, the first 500 employees now have access to *instant messaging,* which speeds up internal communication.

Remote use of CLIS
Since 2017, the CLIS (Central Laboratory Information System) application can be remotely accessed. In the past employees were tied to a specific location in order to use CLIS, this is no longer the case. This is not only useful for home workers, but also, for example, for colleagues from the OLVG lab with whom Diagnostics collaborates. In short: increased flexibility and efficiency.

Securely send diagnostic results with Secure Mail
As of 25 May 2018 all organizations must comply with the new European privacy legislation – the General data Protection Regulation (the 'GDPR'). Urgently required results for diagnostic tests may no longer be sent to the hospital by e-mail or fax. Employees have been able to send results directly from CLIS via Secure Mail since 2017 and, in so doing, help Sanquin meet the new safety requirements for digital traffic.

Automated application for facilities services from now on
Since 2017 applications for the approximately fifty services of the Facility Services have been submitted via the new ServiceNow application. The underlying processes have been digitized. ServiceNow creates an automatic workflow and transfers tasks to the right person or group, such as Accommodations, Facility Services Technology or a supplier. This involves working with a Service Level Agreement (SLA) with suppliers. The advantage for the customer is that they can report all requests, orders and error messages via the self-service portal. Frequent e-mail traffic and telephone calls are now superfluous.

Meeting Service app
FMIS, the Facilities Management Information System, now has another app: the Meeting Service app. This app relieves secretaries of the burden of scheduling meetings. The app is in fact an Outlook plug-in, which enables secretaries to register visitors and request catering with fewer interactions. If a meeting moves or is cancelled, all information is automatically modified.

Every day, ICT is engaged in simplifying day-to-day tasks.

Automatic granting of rights
The majority of the JML project was implemented in 2017, with completion slated for 2018. JML stands for: joiner, mover, leaver. JML is for new employees, for those who change jobs, and for those who leave Sanquin. The JML project ensures that on the basis of their function and roles an employee is given the right access rights to applications and company resources in a fully automated way. This new efficiency significantly reduces the administrative overhead and ensures that users do not have access to information or resources to which they should not (or should no longer) have.

Major Blood Bank information system update

In 2017, a major update was prepared for eProgesa, the Blood Bank information system with which Sanquin works. Donor data and blood product data are inputted here. The most recent update required the system to be offline for 68 hours. Thanks to a greatly improved approach, future updates should take just six hours, to be effected on Sundays, which means fewer disruptions for business processes.

Each package has its own code

As of February 2019 each individual medicine package must have a unique code. This serialization, which is required by law, is intended to prevent falsified medicines from appearing on the market. SPP began adapting the three packaging lines already in 2016. For this purpose, in 2017, IT connected a new network in the Packaging department and the existing office automation network. In addition, a development and testing environment has been configured and implemented for SAP-ATTP (Advance Track & Trace for Pharmaceuticals). Furthermore, SPP and IT software will be able to report serial numbers to the European Medicines Verification Organization (EMVO) as of February 2019..

The IT department has made significant investment in its team in order to be able to meet Sanquin's current and future IT challenges.

Peace & Trust

The IT department has made significant investment in its team in order to be able to meet Sanquin's current and future IT challenges. A clear prioritization of these challenges is necessary, as is the desired culture within the team, in order to provide optimal support for the organization.
In order to bring about the desired cultural change within the IT department, a culture program has been set up that places the emphasis on 'Trust' and 'Rust' ('rest' in Dutch), or (T)rust. Trust in one's own abilities, colleagues and management. Rest more often in order to provide the right solution for the customer's problems. A culture team composed of ambassadors (committed and motivated employees), managers and the MT team of IT promotes the Culture Program. In 2017, the Culture Team members were trained to understand authentic and adapted behavior and to learn skills for better communication and giving feedback. The team carried out various initiatives, such as a poster campaign that highlighted the core values (customer-oriented, professional and driven) and associated behavior. In the last quarter of 2017, all employees attended a culture workshop. The Culture Program should help IT to achieve concrete goals, including increased user satisfaction and reduction of IT costs.

In addition to these improvements, IT has worked on other important projects such as the new intranet, a pilot for a social intranet and a new solution for working from home (working remotely).

Thanks to the underground storage of cold water and the heat exchange via the district heating pipeline, we are significantly reducing CO2 emissions and saving energy.

9. CORPORATE SOCIAL RESPONSIBILITY

* This only concerns the head office on Plesmanlaan and is only based on electricity, natural gas and water consumption.

** Based on approximately 5 tons of CO_2 emissions per average family (electricity/gas consumption).

Our mission statement makes clear that Sanquin is an organization with a social mission: together with the donor we ensure a better life for the patient. We have a statutory obligation to ensure a safe blood supply that is adequate for the needs of the Dutch population. This is a great task that also entails a great deal of responsibility. Based on this commitment and responsibility we also want to make the best possible contribution to society in other areas. This includes working with our employees in a committed and sustainable way. It also includes being at the heart of society and preparing the younger generation by means, for example, of the 'Boss of Tomorrow' campaign and guest lectures at schools. Making energy consumption more sustainable with projects such as the heat/cold storage project and the original pilot project with bicycle couriers is yet another way we can achieve our mission.

Sustainable heating and cooling

Sanquin is a major energy consumer with its plasma-derived medicine production facilities, which means we also unfortunately emit a significant amount of CO_2 (Sanquin's total annual emissions are approximately 16,000 metric tons of CO_2*, which is comparable to approximately 3,200 households**). Sustainability is therefore an important priority for us. In 2017 we carried out two major projects at the Plesmanlaan site in Amsterdam, which form the foundation for significantly reducing, and also making more green, our energy consumption over the next 10 years.

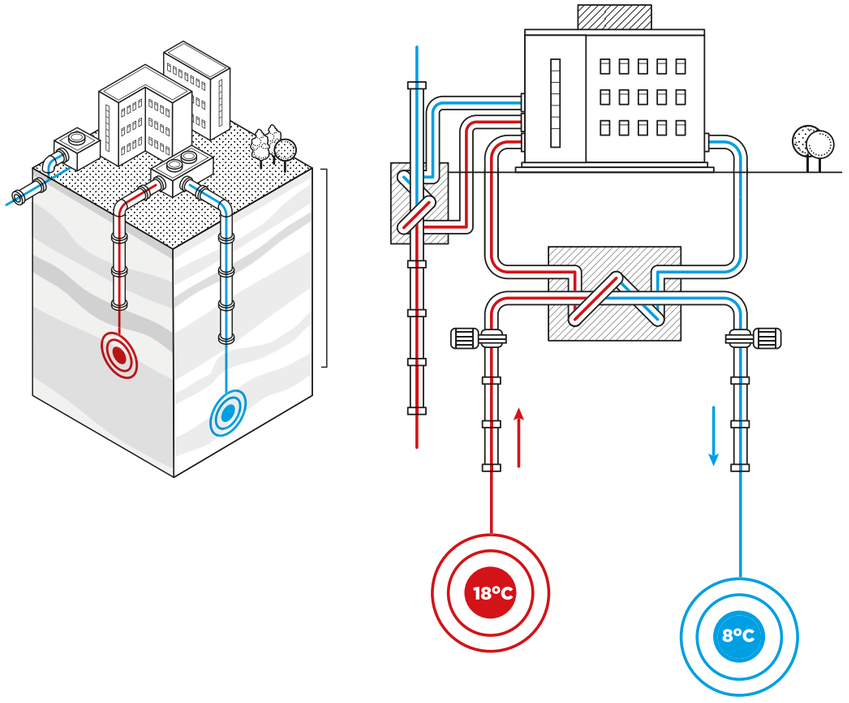
Our first project was the Cooling with Drinking Water project. A pumping station was built on Sanquin's site in 2017. Here, Waternet's main drinking water pipeline is routed alongside our cooling system. In winter, the cold from the drinking water (which comes

directly from the dunes) is absorbed by Sanquin's cooling system with the aid of heat exchangers. The cooled water then flows through our site via an 'energy loop', and any that is not immediately needed is stored in the groundwater at two on-site locations, at a depth of 150 meters. This is also known as heat/cold storage. In summer, when further cooling is needed, the water can be pumped up again. In the near future, an automated system will determine the most efficient use (both in terms of energy consumption and maintenance costs) for cold generators.

In the second project to make energy consumption more sustainable, heat is exchanged rather than cold, via Nuon's district heating pipeline, which runs along Sanquin's site. Water flows through the pipe at a temperature of 120 degrees Celsius. Sanquin absorbs part of that heat using the same principle as with Waternet: we use a heat exchanger to direct water for our central heating along that of Nuon and use it to heat our radiators and air treatment from buildings V and W. Nuon extracts 50% of the heat from its water from a new energy source: a waste incineration plant. In addition to CO2 reduction and energy saving, this district heating integration also provides a higher assured heat supply, because district heating and the energy-intensive steam heating in the plasma factory are connected in series. This means that the majority of the heat is from district heating and steam heating serves as a reserve. In time, all Sanquin's buildings on Plesmanlaan will be connected to district heating.
Both projects are part of City-zen, a consortium of companies, municipal representatives and research institutes in Amsterdam and Grenoble, France sponsored by the European Commission that collaborate on various sustainability projects.

Blood by bike

Sanquin's pilot project to deliver blood to hospitals by bicycle courier, which started in 2017, is particularly environmentally friendly. The pilot involved journeys in which extra



The water in the drinking water pipe enters the pumping station at around 10°C and leaves it at around 14°C.

The heated water from Sanquin enters here at over 16°C and leaves at 12°C. These may seem small differences, but, combined with the district heating project, they produce a saving of approximately 1,800 tonnes of CO2 per year (equivalent to over 350 households)!

Following a successful pilot project Sanquin will deploy bicycle couriers for extra inventory replenishments.

inventory replenishments were delivered, in addition to the regular car deliveries. Four hospitals in Amsterdam – OLVG East, OLVG West, AMC and VUmc – participated in the pilot project. The pilot was successful and the bicycle couriers felt proud to deliver such an important product as blood. When Sanquin signs new transport contracts in 2018, it intends the bicycle couriers to be a standard element for the Amsterdam and Rotterdam region.

- The bicycle courier pilot yielded a reduction of more than 1,200 kg CO_2.
- It is expected that a 10% reduction in CO_2 can be achieved through the systematic use of bicycles for A2 journeys.

Tomorrow's boss

On Thursday, 26 January 2017 Sanquin welcomed a new chairman of the Executive Board when Dirk Jan van den Berg handed over the baton to Halil Doğan for the day. We gave this 14-year-old from Amsterdam, in the third year of pre-vocational secondary school (vmbo-t), experience of what it was like to be the boss at Sanquin. The transfer was organized for the 'Boss of Tomorrow' initiative by JINC to let children growing up in an environment with socio-economic disadvantage experience what it is like to be in charge. This boosts the development of their talents. Halil was given a guided tour, the opportunity to contribute ideas about the annual report and share his ideas about recruiting first-time donors. He had never heard about donating blood and was impressed by the world of blood supply.

Sustainable personnel policy

Sanquin is committed to the permanent deployability of its employees. In 2017, HR launched various initiatives to encourage employees to remain employable for as long as possible and to enjoy their work. These initiatives include Whistle to Work, the Digital Career Coach and the Individual Training Budget. More information on permanent deployability can be found in the HR Department's reports.

Roparun

Roparun's motto is 'add life to the days when days can no longer be added to the life'. During this 500+ km non-stop relay race from Paris and Hamburg to Rotterdam, teams

compete to raise money for palliative care for cancer patients. Sanquin wholeheartedly supports this objective and contributes with our blood products to the care of people with cancer. During the Whitsun weekend of 2017, a Sanquin team cycled and ran in the Roparun for the first time, raising more than 38,000 euros.
www.roparunteam172sanquin.nl

Sanquin in het museum

The Rijksmuseum Boerhave in Leiden is also known as the treasure trove of 400 years of scientific research. It's here that you will find the history of the natural sciences and medicine, including recent developments in blood transfusion and donation. On 1 November 2017 the museum and Sanquin entered into a structural partnership for this purpose. The objects in the presentation include a processed bag of blood, in which the various blood components are separated. The ability to separate these components led to a revolution in medicine. Donor blood was not only good for life-saving blood transfusions, but it also became possible to use blood plasma to make medicines.
In an audio story a patient talks about the plasma medicines he needs every month. Visitors are also presented with the ethical issue of the use of human biological materials (including blood). The visitor can give their own opinion and hear extra background information from experts, so that they can form an even better, more informed point of view.
"History is full of intriguing stories with innovations that have significantly improved the quality of life", says museum director Dirk van Delft. "By sharing those stories with our visitors, and by bringing those stories into the present, they understand how valuable scientific research is to us. As a knowledge institute, Sanquin provides a heartfelt contribution to the museum's objective.

Lectures about donating

How does one choose whether or not to become a donor? This is the central question that came up in guest lectures on blood and stem cell donations at secondary schools and senior secondary vocational schools throughout the Netherlands. These guest lectures were organized by Sanquin in cooperation with Matchis, the Dutch center for stem cell donors, and were offered free of charge to schools. The goal was to provide students in secondary education from the age of 16 and students at secondary vocational education (up to the age of 25) with more information about donating and to stimulate conversations with students and their families at home. In the Netherlands there is a lack of knowledge about blood and stem cell donation, which results in relatively few young people registering as donors. Sanquin and Matchis want to let young people know how donating works by providing better and timelier information.

The 90-minute lecture was based on a case involving leukemia-patient Mike, who had to undergo both blood transfusions and a stem cell transplant. The importance to the patient of donating was explained in a number of ways, including via a quiz and videos. Guest teachers from the Remedica communications agency have provided 500 lessons in schools throughout the Netherlands since 2017. After the evaluation in March 2018, the guest lectures will be followed-up. We will then focus on defense, police and sports training which involve a lot of men. We would like to increase the proportion of young men in our donor base because they are allowed to donate more frequently than women, suffer less from low Hb-values in their blood and do not produce antibodies because of pregnancy.

In 2017:

221
lessons at secondary vocational schools

279
lessons at secondary schools (mainly pre-university education, over 16 years of age)

"The guest lessons held last week were extremely well received and gave real added value to our school curriculum."

Teacher from Blariacum College

Through knowledge transfer Sanquin helps with blood supplies in low and medium income countries.

Sanquin Consulting Services

Sanquin Consulting Services is the part of Sanquin that provides technical advice and assistance to blood supply organizations and/or governments of *'low and medium income'* countries. The aim is to contribute to the development of safe and effective blood supplies and quality management by means of knowledge transfer. Last year we were active in several countries in the following projects:

Sanquin operates in a number of countries together with organizations including the Red Cross.

Suriname
In collaboration with the Suriname Red Cross, we have successfully concluded a training program for Blood Bank employees. Over the past two years, people have been trained in blood collection, processing and screening, supply chain management, information technology and good clinical use of blood products.

Sri Lanka
The project to enable stem cell transplantation in the health care sector, launched in 2014, was followed up with a training course on HLA diagnostics (diagnosing the individual characteristics of patients and donors). Meanwhile, 20 successful stem cell transplants have been carried out in Sri Lanka.

Curaçao
Sanquin carries out an annual audit at the Curacao Blood Bank and advises on points for improvement. In 2017, we reviewed the implementation of a new information management system, which was successfully launched.

Nepal
In 2017, we started a three-year collaboration with the Nepal Red Cross to increase the availability and safety of blood products in the country. We first took inventory of the priorities for improvement and then gave a course on quality management at the Blood Bank. At the beginning of 2018 a delegation from the Nepalese Blood Bank made a study trip to Sanquin.

The Netherlands
Together with the University of Groningen, we have developed a two-year part-time course in *Management of Transfusion Medicine* for management members of foreign blood banks, particularly in *low and medium income* countries. The program contains an e-learning component and two internships at Sanquin. By 2016, four African students and one Singaporean student had graduated. In 2017, four new students from Fiji, Zambia, Honduras and Singapore joined the study program.

The Executive Board conducts day-to-day management of Sanquin and is responsible for the entire organization. It determines direction and policy.

10. EXECUTIVE BOARD

New mission, vision and core

The world around us is changing rapidly, and we will change along with it in order to continue to fulfill our important societal role. This is why Sanquin faces many new challenges in the coming years. In 2017, we reviewed our organization in strategy sessions with the entire management team, and formulated our core values, mission and vision.

Our core values are: innovative, connected and responsible.

We are responsible, self-aware Sanquin employees. We connect donors and patients. And we are innovative in our thinking and acting.

Our mission: Together with the donor, we ensure a better life for the patient.

Our vision is our dream for 2025, viewed through the eyes of our most important stakeholders: patients, donors, customers and our employees. People want affordable and safe health care of the highest standard. With our blood products, we save 25,000 lives a year and contribute with our products and services, technology and targeted medication to people's quality of life.

Last year we developed a strategy to enable us to carry out our mission effectively. We need more innovation, greater courage and a willingness to change. This also means that we

must learn to think and work in different ways. To this end, in 2017 we launched Sanquin+, an internal modernization program. The plus in Sanquin+ stands for positivity, our mutual cooperation (with external stakeholders) and our drive for progress. We have identified 80 internal modernization projects, which are already underway or will be rolled out in the coming years, and which will ensure that Sanquin employees can work better and more efficiently together with colleagues and external relations.
We are also faced with a number of strategic choices. For example, there is the issue of the growing need for plasma-derived medicines balanced against the decreasing demand for red blood cells. How will we organize blood collection in the future? How can we obtain sufficient raw material for our plasma-derived medicines? How do we maintain sufficient scale in the plasma plant to be able to survive? How can we convert our knowledge into products and services for patients?
Over the course of 2018 we formulated the answers to questions of this kind and we have a strategy for the coming years. The new core values will help us to implement this strategy as effectively as possible.

Research on plasma collection

In order to meet the increasing demand for plasma-derived medicines, Sanquin needs more plasma. This is not a problem limited to the Netherlands, but extends to the whole of Europe, where targeted plasma collection is still in its infancy in most EU member states, many of which depend on plasma-derived medicines produced by global companies using predominantly American plasma. Sanquin wants to play a pioneering role in bringing the plasma supply within the Netherlands, but also ultimately within the EU, much more in line with its own needs for plasma-based medicines. In 2017 we therefore explored the possibilities of a pilot project to collect plasma on a larger-scale. Increasing the scale of efficient plasma collection could help to reduce the costs of collection. The results of the study will be further elaborated in 2018.

Safety under one roof

In 2017 Sanquin began the creation of an Integral Safety Management System, with the goal of bringing all safety areas within one system and developing a uniform vision, policy and culture to increase safety.
The relevant areas are:
- Employee safety
- Visitor safety
- Environmental safety
- Security of buildings and workplaces
- Physical safety
- Data security.

An important approach to the new system is that everyone within Sanquin is responsible for their own safety and that of others, not just the Safety, Occupational Health and Environment department. In 2018 a baseline measurement will be taken to measure the degree of safety awareness within the organization.
A second measurement will be carried out in three years' time, once the system is fully implemented.

We need more innovation, greater courage and a willingness to change.

Data security

On 1 January 2017, in order to raise data security to a higher level, Sanquin appointed a Chief Information Security Officer (CISO). Last year the CISO carried out a data classification and mapped all the types of data that are processed within Sanquin, the way in which we handle this data and the improvements needed. He has also set in motion new policies on passwords and IDs. In addition, a project has been launched to clarify and improve the monitoring of all authorization rights, the so-called Identity Access Governance. [approve Hessel Mooiman].

Privacy proofing

Privacy was also high on the agenda in 2017. New European privacy legislation, the General Data Protection Regulation, will enter into force in May 2018, and has led to a variety of actions in the area of privacy. Firstly, we spent a great deal of time setting up a register to record all processing of personal data within Sanquin. In addition, we introduced an almost completely new privacy policy for the entire organization, together with a data breach protocol. A second privacy officer was engaged in 2017 The privacy officer appointed in 2016 has now been joined by a second privacy officer appointed in 2017 to support the operations mentioned above.

Together with the CISO, the privacy officers will continue the campaign to raise awareness already begun within the organization, by way of presentations, a survey, a phishing test and an instruction leaflet for all employees. Sanquin employees were also trained last year in the handling of personal data and these training courses will continue in 2018. In 2018, we will also devote a great deal of attention to external communication about privacy with regards to data managed by Sanquin, including leaflets and communications via www.sanquin.nl.

The separation of divisions into individual companies promotes transparency and is more streamlined in terms of financial management.

New companies

Following the conversion of the Plasma Products division to Sanquin Plasma Products, Sanquin transferred the Diagnostics Services and Reagents divisions to separate private limited companies effective as of 1 January 2017. Sanquin is active in both the public domain (Blood Bank and our research) and the private domain (diagnostic services, production of medicines and reagents). This separation is important because it promotes transparency and is more streamlined in terms of financial management. This applies in particular to external parties with whom the various organizational units collaborate. The legal distinction between Sanquin's public and market operations prevents our statutory obligation – the blood supply – from being put at risk in the unlikely event that the operations in line with the market run counter to expectations.
The National Screening laboratory Sanquin (NSS), part of the Diagnostics Services division, is incorporated under the Research & LabServices Division. The NSS tests the donated blood and is an essential part of the blood supply and therefore of the performance of our statutory obligation.
Sanquin Plasma Products BV, Sanquin Reagents BV and Sanquin Diagnostiek BV fall under Sanquin Holding, of which the Sanquin Foundation is the sole owner.
For donors, patients and clinicians, nothing else will change, nor will this restructuring mean any changes in terms of service for our customers. There will also be no consequences for the employees of both divisions.

Sanquin's profile on social media is increasing.

Blood Supply Act (Wibv)
The Ministry of Health, Welfare and Sport has adapted the Blood Supply Act to Sanquin's new legal structure. The proposed amendment was submitted to the Lower House of Parliament in October 2017.

Employee Participation
Sanquin's restructuring also meant that employee participation within the organization had to be organized differently. Since October 2017 each division or company has its own works council (SPP, Blood Bank and Tissues & Cells, Corporate Support Staff, Diagnostics Services, Reagents, Research & LabServices). The relevant works council deals with all matters within one division/company.
The Central Words Council (COR) deals with subjects that concern more than one division/company.

Public research

Sanquin's reputation has improved in recent years. In 2009 Sanquin first carried out research into how people in the Netherlands generally view blood donation, what Sanquin's reputation was and the effectiveness of our communications. This research has been regularly repeated in recent years, including the start of 2017. The most recent research shows that Sanquin's reputation has improved compared to previous years. The TRI*M index is used to measure reputation. For Dutch organizations in the health sector, the TRI*M index averages between 40 and 60. Sanquin's score was 56, indicating a high reputation (compared to 53 in the previous measurement

in 2014). Sanquin also has a very high reputation among blood donors. Compared to the previous measurement, the TRI*M score for this specific group has risen from 65 to 75. The research helps us to make the right choices for future communications policy. In recent years we have posted more on social media with blogs, posts and video clips along with patients who benefit from Sanquin's products and services. According to the research, patient films provide a clearer social image of Sanquin, and help explain that Sanquin's work is based on scientific research. People find Sanquin to be honest, reliable and professional. The survey highlighted the following as points of attention for us: the degree of transparency and the improvement of the reputation among people in the age category 34–54 years old. These people have relatively little contact with Sanquin and therefore have less 'feeling' for the organization.

The Executive Board

Composition

In 2017, the Executive Board was made up of:

- Mr. Dirk Jan (DJ) van den Berg (chair of Executive Board)
- Prof René (RAW) van Lier MD PhD (vice chair)
- Mr. Pieter (P) de Geus MD PhD (member)
- Ms Daphne (DC) Thijssen-Timmer PhD (member)

- Mr. O. Dijkstra LL. M. (secretary)

Meetings

In 2017, the Executive Board held 50 meetings. At the request of the Board, members of the management team and the corporate support staff are invited to the meetings. All resolutions adopted are recorded in a list of resolutions and in minutes. In its operations, the Executive Board abides by the Sanquin Corporate Governance Code and its own Bylaws, containing rules and standards for good governance, effective supervision and transparent accountability.

Sanquin accounts for its operations and responsibilities to society with transparency. The Executive Board applies good governance standards and ensures that its operations are clearly accounted for. In adopting policy, Sanquin takes into account the opinions of donors, hospitals and other stakeholders where this policy directly affects the organization.

Side activities of the members of the Executive Board

The following lists the main side activities of the members of Sanquin's Executive Board The side activities of the Executive Board require approval from the Supervisory Board.

Mr. D.J. van den Berg (1953)

Main position:
Chair of the Executive Board of Sanquin Bloedvoorziening
Side activities:

- Board member of Stichting IDTM
- Member of the International Advisory Board PolyU Hong Kong
- Member of the International Visitor's Program Advisory Board of the Ministry of Foreign Affairs
- Chair of the Atlantic Committee
- Member of the board of the CDA Scientific Institute
- Member of the European Integration Committee for the International Issues Advisory Board
- Member of the Supervisory Board of the N.V. Nederlandse Gasunie
- Member of the Supervisory Board of the European Institute of Innovation and Technology (EIT),
- Member of the Supervisory Board of FMO (Dutch Development Bank)
- Member of the Central Planning Committee

Mr. P. de Geus (1957)

Main position:
Member of the Executive Board of Sanquin Bloedvoorziening
Side activities:

- Chairman of the Executive Board of Plasma Industries Belgium cvba
- Member of the Executive Committee van de IPFA

Prof. R.A.W. van Lier (1956)

Main position:
Vice-Chair and member of the Executive Board of Sanquin Bloedvoorziening
Side activities:

- Professor experimental immunology – UvA
- Member of the Executive Board of PiBe cvba in Brussels
- Member of the Supervisory Board of ETB/BISLIFE
- Board member of Stichting Immunovalley
- Chair of EFIS (European Federation of Immunological Societies)
- Member of the Council of the IUIS (International Union of Immunological Societies)
- Chairman scientific advisory council MS Research Chairman scientific advisory council national rheumatism fund
- Member of the scientific advisory board of Nederlands Long Fonds

Mrs. D.C. Thijssen-Timmer (1975)

Main position:
Member of the Executive Board of Sanquin Bloedvoorziening

Side activities:

- Member of the Advisory Board TRIP Foundation
- Member of the Committee of Experts on Blood Transfusion of the EDQM (European Directorate on the Quality of Medicines) of the Council of Europe
- Member of the TS 093 Plasma Supply Management working party of the EDQM of the Council of Europe
- Lid van de European Blood Alliance Board
- ISBT representative in ICCBBA working party CTCLAG

11. RISKS AND RISK MANAGEMENT

Risk Profile and Risk Preparedness of the Sanquin group

In 2017, Sanquin's mission and vision were reassessed, partly due to the changes in society, markets and the legal restructuring. This reassessment formed the basis for a more concrete development of the Sanquin Risk Profile. The Sanquin Mission has two important focus areas:

1. **"A better life for the patient",** leading to a high degree of risk aversion when it comes to negative effects on product quality and safety and to the search for opportunities to increase the added values of products and product portfolios.
2. **"Together with the donor",** which avoids negative effects for both the individual donor and the overall donor population. Opportunities to improve the individual donor experience and to connect the donor population with the need for blood and blood components will be sought and exploited.

Of course, Sanquin can only continue to achieve its mission if it has a healthy financial business operation and sustainable business. In these areas in particular, the risk profiles of the different parts of Sanquin differ. At a high abstract level at which the risk profile of the Sanquin group is intended, threats to Sanquin's statutory public obligations are avoided, leading to a low risk appetite for both threats and opportunities for the Blood Bank and a somewhat more progressive attitude in the non-legal (market-compliant) operations. Sound business practices and sustainable entrepreneurship also mean that risk considerations must always take account of the positive and negative impacts on people (both employees and other stakeholders) and the environment.
Risks for support operations, which are provided to both public and market-conforming operations, are assessed and taken or avoided in line with the above. This will always include an assessment of the effect on product/product portfolios, donor/donor population and business operations in general.

Managing Risks

In order to further address its approach to the opportunities and threats, together referred to as 'risks', that affect the achievement of the mission, vision and objectives, Sanquin has adopted a system that supports the organization in dealing responsibly with these risks.

Sanquin has developed a system that supports the organization in dealing responsibly with risks.

There are several ways to build such a system. Sanquin has opted for an approach that matches both the models known in the field and the hybrid organization that Sanquin is.

The basis of this system is the Committee of Sponsoring Organizations (COSO) framework, as amended in 2017. This framework focuses mainly on risks along the strategic line of *Mission -> Vision -> Objectives -> Achievement of objectives.* Risk management in day-to-day operations is, in line with the nature of products and markets, designed to be in line with ISO 31000 and – in the context of CGMP regulations – with, for example, the ICH-Q9 guideline. Where relevant, product risks are managed in accordance with current legislation and regulations (including ISO 14971 for medical devices, vigilance systems at the Blood Bank and Plasma-derived Medicines Plasma Products). The Sanquin system also devotes attention to compliance and project risks, in so far as these affect Sanquin's strategic line, day-to-day activities or products. There are set out, for example, in Articles of Association and documents on decision-making procedures and powers, including for projects. The accounting manual sets out rules for the layout of the financial reports. The cash and currency management document (treasury policy) has also been drawn up.

The organization has various conduct rules, such as the policy on the authority to sign, a code of conduct for employees, and whistle-blowers' regulations. These include rules on mutual respect between colleagues, ethics, bribery/corruption and the consumption of alcohol and drugs. Sanquin has adopted the FEDERA code of conduct for further use of human biological materials for research purposes. Measures are taken if any rule of this code of conduct is breached. In 2017, no bribery or corruption was found. Risk inventories and evaluations in the context of working conditions are performed regularly, and insurance policies have been taken out to cover for product liability and other business risks.
The quality assurance policy has been drawn up, and there are Standing Operating Procedures and facilities for IT infrastructure security and back-up facilities in the event of technical breakdowns.
The Executive Board is responsible for setting up and maintaining the Risk Management System. The GRC (Governance, Risk and Compliance) department is responsible for the practical implementation of these measures

Development of risks in 2017

Changing needs for blood products

The use of blood products in hospitals has decreased significantly over the past few years. Sanquin has adapted the organization accordingly and will continue to do so if necessary. The demand for Sanquin Plasma Products' products, by contrast, is steadily growing. Sanquin Plasma Products also manufactures medications based on contract manufacturing for an international pharmaceutical company. In order to keep up with rising demand, production will have to be intensified. Increasing pressure on production requires a strong guarantee of the operational reliability of the entire production chain.

IT

Sanquin has a variety of IT systems in place (hardware, software, computer networks and data communication). This IT infrastructure was designed to provide effective, reliable and safe support to the organization. The continuity of operations depends to a high extent on the proper functioning of the IT systems. For IT systems that support critical operational processes, alternative procedures have been developed to guarantee continuity in the event of technical malfunctions. Practice drills for the contingency procedures are carried out at intervals. The centralization of the management of all applications at a more professionally structured IT department, which was initiated in 2016, was continued in 2017 with special attention to data integrity and preparation for the stricter privacy legislation that will come into force in 2018.

Sanquin has adapted the organization in line with the significant decrease of blood products in hospitals.

Reservoirs of untaken leave

Employees who have worked for Sanquin for many years have previously acquired rights regarding leave. In 2016 a plan was drawn up for each business unit, which is monitored on a quarterly basis, to limit the reservoirs of untaken leave. This was continued in 2017. Agreements have also been made in the new collective bargaining agreement to be able to further reduce the reservoirs of untaken leave.

Taxes

In the context of Sanquin's legal restructuring, a deal was made in 2016 with the Dutch tax authorities about the scope and the way in which the VAT and corporate income tax rules are applied to Sanquin. This ended the uncertainty concerning Sanquin's tax position.
With the exception of Euroclone, the Sanquin Group forms a tax entity in the Netherlands for VAT purposes, which means that no VAT needs to be charged on internal deliveries within Sanquin. For corporate income tax purposes, the public operations are exempt from 2017. The operations of the Holding group are, via a fiscal unity, subject to the corporate tax regime. Corporate income tax returns and VAT statements on the basis of these new agreements are still subject to inspection and approval by the Dutch tax authorities; therefore there is no 100% certainty that the agreements have been correctly interpreted and processed by us.

Financial instruments

The Executive Board has adopted a policy under which the Finance & Control department manages financial risks. Where possible, procurement is centralized and long-term pricing agreements for procuring and selling are made in euros. The scope of the financial risks to which Sanquin is exposed in its daily operations, such as interest, credit and liquidity risks, is limited and Sanquin therefore does not make use of financial instruments it has available.

Sanquin's solvency and liquidity is healthy and was strengthened further in 2017. We also comply with the bank's financing covenants. Setbacks in the quality of operational processes may result in a slow down or complete discontinuation of the manufacture – and therefore the sale – of products. That could affect Sanquin's financial position. However, this risk is mitigated by carefully observing the guidelines and procedures, and paying close attention to the required staff training and the company culture in order to promote compliance with legislation. Stichting Sanquin Bloedvoorziening maintains the level of equity required for guaranteeing continuity of the blood supply.

Quality assurance policy
Sanquin's quality assurance policy is documented and forms the basis for decentralized quality assurance systems, appropriate for the product and the market. The products and markets within the various business units are inspected frequently by the relevant and/or responsible national and international.

Internal audits
Internal audits are carried out periodically. In addition to reports from the organization in the planning and control cycle, these audits also form part of the monitoring of the Risk and Compliance Management systems.

The Financial position of Sanquin in terms of solvency and liquidity is healthy and has strengthened in 2017. We also comply with the bank's financing covenants.

12. FINANCIAL RESULTS

The net profit of the Sanquin Group decreased in 2017 by € –3.4 million compared to 2016. This is caused by lower income (€ –6.8 million) and higher staffing expenses (€ +8.5 million), partly compensated by lower costs of raw materials and consumables (€ –2.8 million), lower depreciation (€ –2.9 million), lower other operating expenses (€ –1.0 million) and lower financial income and expenses (€ –1.3 million). As a result of the lower result, taxes are € –3.5 million lower.

Income is € –6.8 million lower than last year. Higher product turnover in 2017 of € +44.5 million is compensated by lower other operating income of € –38.5 million and lower cost coverage resulting from production of € –12.9 million.

Product turnover increased largely due to growth of the contract manufacturing operations of Plasma Products. The turnover of the Blood Bank increased by € +1.7 million due to the introduction of the test for Hepatitis E. The turnover of Reagents grew by 8%, € +1.1 million.

The lower other operating income is caused by the one-off release with respect to the purchase of raw materials that was recognized in 2016 and by a lower contribution from CMO partners to compliance costs. This is the result of an adjustment to the agreements made in this respect.

Procurement costs fell by € –2.8 million compared to last year. This is due to a lower addition to the inventory provisions, partly offset by an increase in procurement costs as a result of higher turnover.

Staffing expenses rose by € +8.5 million compared to 2016 as a result of increases in the number of employees under the collective bargaining agreement.

The other operating expenses fell by € –1.0 million compared to last year. This is caused by lower consultancy costs and lower costs for external services.

Operating result (€ 14.7 million) was € –8.6 million lower than last year. This is primarily due to lower other operating income and higher staffing expenses.

Net profit for 2017 fell to € 10.8 million (2016: € 14.2 million).

Last year's forecast in the annual report was continued pressure on profitability as a result of further necessary investments in the quality assurance system in order to make the process FDA compliant. This came actually true in 2017. In 2017, too, considerable expenditure was made on quality assurance measures.

Significant financial developments in 2017

Income
Total income dropped in 2017 by € –6.8 million to € 470.1 million (2016: € 476.9 million). Product turnover increased by € +44.5 million (from € 388.7 million in 2016 to € 433.2 million in 2017) (see table 2). The growth is mainly due to the growth of the contract manufacturing of Plasma Products.

The turnover of the Blood Bank increased by € +1.7 million. Sales of short shelf-life blood products to hospitals were down, but this was partly offset by additional sales as a result of the introduction of the test for Hepatitis E on 1 July 2017.

The turnover of Diagnostics Services remains stable. Reagents' turnover rose by € +1.1 million, mainly as a result of collaboration with new partners and customers. The turnover at Research is stable.

Tabel 1: The summary of the profit and loss account is as follows:

(× € million)	2017 €	2016 €	Change €	Change %
Income	**470.1**	**476.9**	**–6.8**	**–1.4%**
Costs of raw materials and consumables	–96.3	–99.1	2.8	–2.9%
Staffing expenses	–200.7	–192.2	–8.5	4.4%
Other operating expenses	–129.6	–130.6	1.0	–0.7%
Depreciation	–28.8	–31.7	2.9	–9.2%
Total costs	**-455.4**	**-453.6**	**–1.8**	**0.4%**
Operating result	**14.7**	**23.3**	**-8.6**	**-37.0%**
Financial income and expenditure	–0.9	–2.2	1.3	–59.1%
Taxes	–3.0	–6.5	3.5	–54.1%
Result from participating interests	–	–0.4	0.4	100.0%
Net profit	**10.8**	**14.2**	**–3.4**	**–23.9%**

Tabel 2: Product turnover can be itemised as follows:

(× € million)	2017 €	2016 €	Change €	Change %
Per product				
Blood Bank Turnover	125.8	124.1	1.7	1%
Plasma products Turnover	264.2	221.9	42.3	19%
Diagnostics Turnover	21.2	21.2	0.0	0%
Reagents Turnover	15.2	14.1	1.1	8%
Research Turnover	6.1	6.1	0.0	0%
Other activities Turnover	0.7	1.3	–0.6	–48%
Totaal	**433.2**	**388.7**		

Other operating income fell by € –38.5 million. This includes the passing on of costs for the Compliance Enhancement Program, non-recurrent extraordinary income and other income, among other things, from royalties and grants. In 2016 a large one-off extraordinary income of € 8.4 million was recognized relating to the release of a short-term debt position relating to the purchase of raw materials. The passing on of costs for the Compliance Enhancement Program decreased in 2017 by € –25.0 million to € 4.4 million.

Costs

Total costs increased in 2017 by € +1.8 million to € 455.4 million (2016: € 453.6 million). Procurement costs fell by € -2.8 million compared to last year. This is due to a lower addition to the inventory provisions, partly offset by an increase in procurement costs as a result of higher turnover.

Staffing expenses rose by € +8.5 million. This is due to a higher average number of employees (+95), and increases in payments under the collective bargaining agreement. The number of employees at Diagnostics Services has decreased and the number of

12. FINANCIAL RESULTS

The net profit for the financial year 2017, taking into account income and expenses, is €10.8 million.

employees at Sanquin Plasma Products BV, Research and Plasma Industries Belgium CVBA has increased.

Other operating expenses fell by € –1.0 million. Higher other staffing expenses were offset by lower transport costs and lower general costs. Other staffing expenses rose because fewer WBSO grants were included in 2017, which were received as a contribution to various research projects as part of research and development activities. General costs fell due to lower consultancy costs and lower costs for external services.

Depreciation decreased by € –2.9 million compared to 2016.

Net profit

Due to the decrease of income by € –6.8 million and the increase of the costs by € +1.8 million, operating result deteriorated to € 14.7 million (2016: € 23.3 million).

Financial charges, including the result of participating interests, totaling € –0.9 million were € 1.3 million lower than in 2016 because the penalty for the surrender of a loan was accounted for in 2016.

In 2017, tax expenses recognized amounted to € 3.0 million. These expenses were calculated for the Sanquin entities based in the Netherlands. PIBe in Belgium has a negative result before tax, for which, for reasons of prudence, no tax claim is included.

All income and expenses mentioned result in a net profit for financial year 2017 amounting to € 10.8 million (2016: € 14.2 million).

The balance sheet total is € 464.5 million, 3.3% lower than 2016 (€ 480.2 million).

Total operating capital amounted to € 189.7 million (2016: € 196.4 million). Within operating capital, the inventory increased by € +8.1 million (+5.3%). Accounts receivable showed a decrease of € –13.9 million. Current liabilities showed an increase of € +1.1 million.

Tabel 3: The summary balance sheet of Sanquin is as follows:

(× € million)	2017 €	2016 €
Fixed assets	165.0	175.0
Inventory	160.3	152.2
Accounts receivable	80.9	94.8
Cash and cash equivalents	58.3	58.2
Total assets	**464.5**	**480.2**
Provisions	9.3	8.7
Long-term liabilities	14.3	42.5
Current liabilities	109.9	108.8
Group equity	331.1	320.2
Total liabilities	**464.5**	**480.2**

At € 58.3 million, cash and cash equivalents are at the same level as in 2016. In relation to income, operating capital (exclusive of cash and cash equivalents) amounted to 27.9% (2016: 29.0%).

At € 359.2 million, the capital employed is € –17.7 million lower than in 2016 (€ 376.9 million) as a result of lower fixed assets and lower receivables. Return on the capital employed as at year-end, based on operating result, was 4.1% (2016: 6.2%). The decrease is mainly due to the fact that a non-recurring income was realized in 2016.

Total equity as at year-end amounted to € 331.1 million (2016: € 320.2 million).

Solvency as at year-end was 71.3% (2016: 66.7%). With this ratio, the bank's solvency requirements are easily met.

Net cash flow from operations amounted to € 21.9 million (2016: € 47.1 million). The € –25.2 million decrease is mainly caused by lower net profits (€ –3.4 million), lower depreciation and changes in provisions (€ –3.2 million) and a lower operating capital (€ –12.9 million).

Net cash flow amounted to € +0.1 million (2016: € +25.5 million). Cash flow from operations is approximately equal to cash flow from investments and financing.

Sanquin's summary cash flow statement is as follows:

(× € million)	2017 €	2016 €
Operating result	14.7	23.3
Depreciation and changes in provisions	29.1	32.3
Changes in operating capital (inventory, accounts receivable and short-term liabilities)	-12.2	0.6
Cash flow from operations	**31.6**	**56.2**
Other operational changes	-9.7	-9.1
Cash flow from operations	**21.9**	**47.1**
Cash flow from investments in tangible fixed assets	-18.9	-8.9
Cash flow from investments in financial fixed assets	0.4	0.4
Cash flow from financing	-3.3	-13.1
Net cash flow	**0.1**	**25.5**

13. PROSPECTS FOR 2018

Sanquin celebrates 20 years of existence in 2018 and will continue to develop as a sustainable organization with a social business operation. Sanquin is preparing itself to meet the needs of tomorrow. Innovative (our innovations), Connected (our role in society, which we fulfill with thousands of donors) and Responsible (our statutory obligation, which we carry out transparently and optimally) are the pillars on which Sanquin's new strategy will be built in 2018.

Controllability of healthcare costs

Due in part to a growing level of knowledge and collaboration between Sanquin and the professional field (including all Dutch hospitals), the need for whole blood in the Netherlands will decrease in 2018 (–2% per year), as in previous years. Sanquin expects to further optimize its relationships with hospitals and other professional stakeholders for the benefit of patients and society as a whole.

The manageability of healthcare costs in the Netherlands is invariably a social concern to which Sanquin will also contribute in 2018. Thanks to our scientific studies, synergy between the various divisions and strong cooperation with chain partners, Sanquin will continue to make a positive contribution to further efficiency gains in the blood supply chain in the Netherlands in 2018. This currently results in considerably fewer blood transfusions in the Netherlands (–40%) compared to other European countries.

Research
In 2018, Sanquin Research will continue to focus on top-academic research and more than ever on R&D developments for the benefit of internal customer requirements (the Sanquin divisions and their products and services). Structured attention to Europe remains high on the agenda.

In reassessing Sanquin's strategy, Research focuses on keeping its operations 'relevant and affordable' for Sanquin in the longer term. This requires a (re-)evaluation of the medical needs, an optimization of Sanquin Research's business processes and the associated choice of financing forms and/or sources.

Innovation
Innovation is an important strategic theme for Sanquin in 2018 and for the next ten years. New products and services are emerging while existing ones are disappearing, and the same is also true for Sanquin's medicines, blood products and diagnostic tests.

Sanquinnovate, a Sanquin company founded in 2017, will in 2018 contribute to the efficient financial and project management of development projects carried out within Sanquin Research, with a focus on the protection and valuation of knowledge/IP. This will allow ideas for new products and services to be identified and developed more quickly. The focus on the business development of product ideas means that concrete solutions for patients become available more quickly.

Products can be developed in partnerships with other parties in order to make the financing, knowledge and capacity of specialized parties accessible to Sanquin. To this end, Sanquinnovate will also be able to participate in spin-off companies that develop and market products.

SPP
While the demand for whole blood is falling, the demand for plasma medicines (immunoglobulins) is increasing at an annual rate of +7% due to better diagnosis, more research and a broader application of plasma-derived medicines. This is a global development, which is expected to continue.

In 2018, in order to continue to meet this demand, SPP will focus on an increase in scale and related efficiency improvements. A precondition for this is an increase in the amount of plasma available. SPP is in discussion with various plasma suppliers in Europe about the establishment of 'plasma supplies' for SPP, and the associated quality requirements. A pilot project will also be launched in 2018 with the Blood Bank for a dedicated plasma collection center in the Netherlands, in which the possible economies of scale of such a center will be analyzed quantitatively.

Blood Bank
Current and first-time donors require a different approach from the one adopted five years ago. Sanquin Blood Bank is responding by working on digitization, where the donor themself has control through various channels to make appointments, to make changes, and feel part of the donor community.

The Blood Bank's governance model will be reviewed in 2018, with a more targeted focus on the KPIs and the functioning of the chain processes. The Blood Bank will continue to innovate in the fields of product, process and service innovation and will start mechanizing part of the processing procedure in 2018. Sanquin strives for clear and transparent prices that give the customer clarity about the structure of the costs of a product.

As the number of donors in the Netherlands is decreasing year on year, Sanquin expects to make the decision in 2018 to increase the donor age from 70 to 80 years, which is expected to have a positive effect on the donor population.

Reagents and Diagnostics Services
Reagents is the Sanquin organizational unit that is the fastest growing. This growth is expected to continue in the coming years. Reagents is receiving more and more orders for tests and the number of customers is increasing.

In 2016 Sanquin introduced a new test to be able to demonstrate pyrogens (fever-inducing substances originating from bacteria) in pharmaceutical products (MAT test). Sanquin Diagnostics was already performing the tests on behalf of third parties. In 2017, Reagents, in cooperation with Sanquin Diagnostics and Research, also made the tests available for sale to third parties for them to carry out themselves. There is a great deal of interest in this MAT test. Sanquin Reagents expects to see strong growth in this area in 2018. The same applies to the demand for the improved version of the C24 – fully automatic blood group machine – with its reagents.

The market in which Sanquin Diagnostiek BV operates (patient diagnostics) is in a state of flux and this market is showing limited growth. In this market there is also a shift towards molecular and genetic diagnostics. Sanquin Diagnostiek sees clear growth in the Pharma & Biotech market and is focusing its operations to achieve a strong position in this segment.

Current donors require a different approach to donors from five years ago. That's why Sanquin Blood Bank is working on digitization.

Personnel
Sanquin is strongly committed to the permanent deployability of all generations. The development of employees, the recruitment of new staff and the further expansion of the leadership program are of great importance in this respect. The Sanquin Academy, which was founded in 2017, will be further developed in 2018 as an important pillar in achieving permanent deployability.

In an organization with more than 50 physical locations, connectivity is important, and in 2018 digitization will be a means of facilitating connection. In order to enable employees to work in more modern and efficient ways, large digital projects will be rolled out in 2018, which will make working and collaborating within Sanquin easier and more accessible.

In 2018 Sanquin will continue with its strategic accommodation plan, which must result in Sanquin finding a modern balance between the requirements of the modern employee, our CSR values and our strategic personnel policy.

Reagents is receiving more and more orders for tests and the number of customers is increasing.

REPORT OF THE SUPERVISORY BOARD

Composition

The Supervisory Board has had the following members since 2017:

- Prof. FC Breedveld PhD (chair)
- Mrs. K. Bergstein MSc MBA (vice chair and audit committee chair)
- Mr. M.J.W. Bontje (quality committee chair)
- Prof. C.G. Figdor PhD
- Mr. A.K. Lahr MSc (audit committee member)
- Mr. D.E. de Vreeze MSc (quality committee member)

Mr. O. Dijkstra (secretary)

Governance

The Supervisory Board supervises the policy pursued by the Executive Board and the general course of affairs within Sanquin. The Supervisory Board also makes recommendations to the Executive Board regarding Sanquin´s strategy and operations, and decides on important Board resolutions by approving them. In its activities, the Supervisory Board abides by the Sanquin Corporate Governance Code, containing the rules and standards for good governance, effective supervision and transparent accountability. The Supervisory Board is composed in such a way that the statutory requirements of expertise and experience are easily met. In 2016, the Board decided to expand in order to strengthen its expertise in the (pharmaceutical) industry. In addition, a quality committee was set up in 2017 to discuss and monitor progress on quality issues.

Meetings

The Supervisory Board met six times in 2017, four of which were scheduled meetings. Additional meetings were held on strategic dossiers. Extra attention was also paid to the cultural programs that are running at Sanquin Plasma Products. In addition members of the Supervisory Board have individual contact with members of the Executive Board and Sanquin employees. On 15 November 2017, the vice-chairman of the Supervisory Board spoke to Sanquin's Participation Council about the general course of affairs within the organization.

In the presence of the external accountant, financial statements, the 2016 annual report, the 2016 annual accounts and the auditor's certificate were discussed and adopted. The Supervisory Board approved of the policy plan, the budget for 2018 and the Medium-to-Long Term Plan.

The audit committee, made up of supervisory directors Bergstein and Lahr, supervising the workings of the financial information provision, internal risk management and control systems and follow-up of recommendations made by the external accountant, met four times in 2017. The Audit Committee asked for extra attention to be paid to the accelerated availability of financial information and was pleased that good progress had been made in this respect. In addition, extra attention was paid to the introduction of the General Data Protection Regulation and IT risks within Sanquin.

The newly installed quality committee, consisting of members Bontje and De Vreeze, which supervises the operation of the internal quality improvements, met once in 2017. The quality reports have been discussed with the Corporate Staff Quality Officer.

Composition

In the event of a balanced allocation of seats on the Executive Board, a minimum of 30% of the seats shall be occupied by women and at least 30% by men, provided that these seats are allotted to natural persons. The Board endorses the target of 30% diversity in the long term.

REPORT OF THE SUPERVISORY BOARD

In 2017, the Supervisory Board consisted of six members, five of whom were male and one female. In 2017, the Board decided to appoint three members for a second term without posting a vacancy. The reason for this is that the Board's current expertise is important for the strategic dossiers. The composition of the Board is very diverse. A good mix of private and public backgrounds means that there is a good connection with Sanquin's hybrid character. The chairman of the Supervisory Board will retire in 2018; he is not eligible for reappointment. A retirement schedule will also be drawn up, with provision for a spread of retirement so that no more than one member will retire at the same time in a single year. The Supervisory Board will look for a new chairman in 2018, as the current chairman's second term expires.

Ms Daphne Thijssen-Timmer was appointed as member of the Executive Board and director of Sanquin Blood Bank as of 31 December 2016. Although the 30% criterion is still not met, the Board is pleased that this is a step in the right direction and that the distribution is almost at the desired level. In order to arrive at a more balanced distribution in the future, a female applicant will be preferred if candidates are equally suitable as soon as a vacancy arises again.

New developments

In the year under review, the Supervisory Board paid ample attention to the following subjects:

Finance

The financial performance of all Sanquin Bloedvoorziening entities has been discussed at length. The budget and strategic developments at Plasma Industries Belgium were also discussed, with the Board agreeing to a recapitalization of this subsidiary. In addition to costs and liquidity, attention was also paid to the risks associated with large contracts. The development of turnover and production is closely monitored, as well as attention to the inventory. Finally, the need to invest in IT and a number of other support functions in order to improve quality has been extensively considered.

Strategy

The Supervisory Board was kept informed about the expected market developments for plasma-derived medicines and the possible impact on production capacity at Sanquin Plasma Products in Amsterdam and its subsidiary Plasma Industries Belgium. The resulting dependence on a large customer (as a result of consolidation in the pharmaceutical market) was an important topic of discussion.

Change in legal structure

In the context of risk separation, the Supervisory Board was kept informed about the implementation of Sanquin's new legal structure and the discussions with the Ministry of Health, Welfare and Sport on this subject. Although Sanquin's hybrid character offers advantages in terms of knowledge sharing, it is important to carefully separate risks. On 1 January 2017, the Diagnostics and Reagents divisions were demerged to Sanquin Diagnostics BV and Sanquin Reagents BV respectively, and the private property of the Foundation was transferred to Sanquin Holding BV The Board agreed to amend the Articles of Association of all legal entities within the Sanquin group, thereby achieving a uniform structure of governance.

Works Councils

On several occasions the Supervisory Board has discussed the proposals with regard to the establishment of an optimal employee participation structure that are in line with Sanquin's new legal structure.

Creation of Innovation BV

The Board has agreed to the creation of Sanquin Innovation BV. This subsidiary will focus – in cooperation with the other parts of the Sanquin group – on further product development and business development.

Food and Drug Administration (FDA)

The Board was briefed on the progress of the Compliance Enhancement Program and preparations for the upcoming regular inspection of the FDA.

Quality

The newly created quality committee has reported to the Board on the status of the quality systems within Sanquin and the roadmaps to continuous improvement.

Reappointment of members of the Supervisory Board

The first terms of office for Mr. Bontje and Mr. Figdor expired on 1 June 2017 and for Mr. Lahr on 1 July 2017. The members of the Supervisory Board are eligible for

reappointment once for a term of four years. They have indicated that they will be available for a second term of office and the Board decided to reappoint all three

Evaluatie

The Supervisory Board has evaluated its own functioning and found that its members were sufficiently independent. The decision-making process within the Supervisory Board was set up in such a way that it prevents conflicts of interests.

The commitment and efforts made by donors enabled the quality, safety and availability of blood products in 2017 too. The Supervisory Board is very grateful to them and all Sanquin employees for their commitment in 2017 and the way in which they have jointly realized Sanquin's objectives.

Amsterdam, May 2018
Supervisory Board

Prof. F.C. Breedveld (1950)

Chair of the Supervisory Board as of July 2013, first appointed in September 2010, retiring in September 2018, not eligible for reappointment

Main position:
None
Side activities:
- Chair of Medical Delta
- Chair of Supervisory Board of Nij Smellinghe hospital
- Chair of Supervisory Board Ipse de Bruggen (care institution for the mentally handicapped) (until 1 July 2017)
- Chair of the board of Xenia (youth hospice)
- Member of Supervisory Board of Spaarne Gasthuis
- Member of Supervisory Board of Dutch Primate Center
- Member of board of Bontiusstichting

MS. K.T.V. Bergstein, MBA (1967)

Vice-Chair of the Supervisory Board . First appointed on 1 September 2012, retiring on 1 September 2020, not eligible for reappointment.

Main position:
Member of the Board of Management of ASR Nederland N.V.
Side activities:
Member of Supervisory Board of Utrecht University

Mr. M.J.W. Bontje (1954)

Vice-Chair of the Supervisory Board and Chair of the Audit Committee. First appointed on 1 June 2013, retiring on 1 June 2021, not eligible for reappointment.

Main position:
Owner of Bontje Advies and Management
Side activities:
- Chair of InEen
- Chair of Supervisory Board of Breburg
- Chair of Supervisory Board of Rivas
- Chair of Supervisory Board of Oogheelkundig Medisch Centrum Zaandam
- Member of the Supervisory Board of Excen
- Board member of Stichting Wie Beter Eet Wordt Sneller Beter
- Chair of Stichting Pand Hospice Nieuwegein

Prof. C.G. Figdor (1953)

Member of Supervisory Board. First appointed on 1 June 2013, retiring on 1 June 2021, not eligible for reappointment.

Main position:
Professor in Immunology Radboud University Medical Center, Nijmegen
Side activities:
- Member of the Dutch Health Council
- Member of the KiKa Scientific Committee Kika
- Member of the NKI Advisory Board
- Initiator of “Wetenschapsknooppunt Radboud Universiteit”
- Group leader Oncode Institute

Mr. A.K. Lahr (1968)

Vice-Chair of Supervisory Board and Chair of Audit Committee. First appointed on 1 July 2013, retiring on 1 July 2021, not eligible for reappointment.

Main position:
CEO of Kiadis Pharma
Side activities:
None

Mr. D. de Vreeze (1967)

Vice-Chair of Supervisory Board and Chair of Audit Committee. First appointed on 13 October 2016, retiring on 13 October 2020, eligible for reappointment

Main position:
Member of the Management Board of Koninklijke DSM N.V.
Side activities:
- Board member of Stichting Fonds voor de Topsporter (NOC*NSF)
- Member of Advisory Board of ECP (Electronic Commerce Platform Netherlands)
- Board member of Stichting Young Captain Nederland
- Board member of Cefic (European Chemical Industry Council)
- Member of Global Future Council on Advanced Materials for the term 2016-2018 (World Economic Forum)

ANNUAL ACCOUNTS

CONSOLIDATED ANNUAL ACCOUNTS

Consolidated balance sheet as at 31 December 2017 (before appropriation of result)

		31 December 2017		31 December 2016	
(× € 1,000)	Ref,	€	€	€	€
ASSETS					
Fixed assets					
Tangible fixed assets	6	162,706		172,396	
Financial fixed assets	7	2,250		2,625	
			164,956		**175,021**
Current assets					
Inventory	8	160,330		152,196	
Accounts receivable	9	80,934		94,835	
Cash and cash equivalents	10	58,283		58,206	
			299,547		**305,237**
			464,503		**480,258**
LIABILITIES					
Group equity					
Equity	12	331,051		320,235	
			331,051		**320,235**
Provisions	13		**9,271**		**8,715**
Long-term liabilities	14		**14,286**		**42,467**
Current liabilities	15		**109,895**		**108,841**
			464,503		**480,258**

Consolidated profit and loss account for 2017

			2017		2016
(× € 1,000)	Ref,	€	€	€	€
Net turnover	19	433,192		388,656	
Changes in inventory of finished product and work in progress		17,196		30,075	
Other operating income	20	19,683		58,206	
Total operating income			**470,071**		**476,937**
Costs of raw materials and consumables		96,304		99,127	
Salaries and wages	21	165,019		158,807	
Social security contributions, including pensions	21	35,722		33,385	
Depreciation charges	25	28,755		31,732	
Other operating expenses	26	129,599		130,552	
Total operating expenses			**455,399**		**453,603**
Operating result			**14,672**		**23,334**
Interest income	28		167		151
Interest expenses	28		–698		–1,162
Results from financial fixed assets	28		–333		–310
Other financial income and expenditure	28		–		–1,170
Results before taxes			**13,808**		**20,843**
Taxes	30		–2,992		–6,543
Result from participating interests	31		–		–98
RESULT AFTER TAXES			**10,816**		**14,202**

Consolidated cash flow statement for 2017

		2017		2016	
(× € 1,000)	Ref,	€	€	€	€
CASH FLOW FROM OPERATIONS					
Operating result			14,672		23,334
Adjustments for:					
Depreciation		28,626		31,732	
Book profit/(loss) sale tangible fixed assets		–27		–	
Changes in provisions		556		561	
			29,155		**32,293**
Change in working capital:					
Increase/decrease in inventory		–8,134		30,874	
Increase/decrease in receivables		13,901		7,930	
Increase/decrease in current liabilities		–18,002		–38,248	
			–12,235		**556**
Cash flow from operations			**31,592**		**56,183**
Other changes in the consolidation		–333		–310	
Interest received		167		151	
Corporation tax		–8,866		–6,543	
Interest and bank interest paid		–698		–2,332	
Result from participating interests		–		–98	
			–9,730		**–9,132**
Cash flow from operations			**21,862**		**47,051**
CASH FLOW FROM INVESTMENTS					
Investments in tangible fixed assets		–19,065		–8,900	
Disposals of tangible fixed assets		156		–	
Investments in financial fixed assets		375		375	
Cash flow from investments			**–18,534**		**–8,525**
			3,328		**38,526**
CASH FLOW FROM FINANCING					
Repayment of long-term liabilities		–3,251		–13,062	
Cash flow from financing			**–3,251**		**–13,062**
Net cash flow			**77**		**25,464**
INCREASE/DECREASE IN CASH	**10**		**77**		**25,464**

The flow of funds is as follows:

		2017	2016
(× € 1,000)		€	€
As at 1 January		58,206	32,742
Change in financial year		77	25,464
BALANCE AS AT 31 DECEMBER		**58,283**	**58,206**

Notes to the consolidated balance sheet and profit and loss account

1. General explanation

1.1 Activities
Sanquin's activities concern the manufacturing and supply of long and short shelf-life blood products in the Netherlands, the other EU Member States and the United States of America as well as blood testing commissioned by third parties. Sanquin also carries out subsidized and contract research and gives lectures in collaboration with the University of Amsterdam. In Belgium, its subsidiary, Plasma Industries Belgium CVBA (PIBe) manufactures and supplies long shelf-life blood products. In Finland, Sanquin Oy markets long shelf-life blood products for the local market.

Stichting Sanquin Bloedvoorziening has its registered office and its principal place of business at Plesmanlaan 125, 1066 CX Amsterdam and is listed in the Commercial Register of the Chamber of Commerce for Amsterdam under number 41217565.

1.2 Place of business
Sanquin has its place of business at Plesmanlaan 125, 1066 CX Amsterdam.

1.3 Estimates
The Executive Board of Stichting Sanquin Bloedvoorziening needs to form an opinion on various matters and make estimates that may be essential to the amounts included in the annual accounts in order to be able to apply the principles and rules on preparing those annual accounts. Where the understanding referred to Section 362(1) of Book 2 Dutch Civil Code is required, the notes to the relevant items explain the nature of these opinions and estimates, including the associated presumptions.

1.4 Consolidation
The consolidation contains the financial data regarding Stichting Sanquin Bloedvoorziening, its group companies and other legal entities on which it can exercise dominant control or for which it is responsible for its central management. Group companies are legal entities on which Stichting Sanquin Bloedvoorziening can exercise dominant control, either directly or indirectly, as it has the majority of the voting rights or any other way can control the financial and operational activities. In doing so, potential voting right that can be exercised directly on the balance sheet date is also taken into account.

Stichting Sanquin Bloedvoorziening is at the top of the Sanquin group. The group companies and other legal entities on which it can exercise dominant control or for which it is responsible for its central management are consolidated 100%. The third-party stakes in the group equity and in the group result are mentioned separately.

Intragroup transactions, intragroup results and intragroup receivables and debts owed between group companies and other entities included in the consolidation are eliminated. Unrealized losses on intragroup transactions are also eliminated, unless there is an impairment. Where necessary, accounting principles of group companies and other legal entities included in the consolidation are adjusted in order to be in line with the group's applicable accounting principles.

The companies included in the consolidation are:
- Stichting Sanquin Bloedvoorziening, Amsterdam, the Netherlands
- Sanquin Holding BV, Amsterdam, the Netherlands (100%)
- Sanquin Plasma Products BV, Amsterdam, the Netherlands (100%)
- Sanquin Reagents BV, Amsterdam, the Netherlands (100%)
- Sanquin Diagnostiek BV, Amsterdam, the Netherlands (100%)
- Sanquin Innovatie BV, Amsterdam, the Netherlands (100%)
- Euroclone BV, Amsterdam, the Netherlands (100%)
- Plasma Industries Belgium CVBA, Neder-Over-Heembeek, Belgium (100%)
- Sanquin Oy, Helsinki, Finland (100%)

By deed of demerger and incorporation, Sanquin Reagents BV and Sanquin Diagnostiek BV were incorporated on 1 January 2017 as 100% subsidiaries of Stichting Sanquin Bloedvoorziening. Stichting Sanquin Bloedvoorziening thereby transferred the activities of its Reagents and Diagnostics divisions by way of a share premium payment to newly incorporated companies (see also paragraph 34: Financial fixed assets). Accordingly, as from the start of the financial year 2017 the financial data of Sanquin Reagents BV and Sanquin Diagnostiek BV is included in the consolidation.

On 2 January 2017 Stichting Sanquin Bloedvoorziening transferred its shares in subsidiaries Sanquin Reagents BV and Sanquin Diagnostiek BV by way of a share premium payment to Sanquin Holding BV. This transfer takes effect as from 1 January 2017 (see also paragraph 34: *Financial fixed assets).*

On 24 November 2017 Sanquin Holding BV incorporated the new company Sanquin Innovatie BV, in which it holds a 100% shareholding. Accordingly, as from the financial year 2017 the financial data of Sanquin Innovatie BV is included in the consolidation.

1.5 Application of Section 402 of Book 2 Dutch Civil Code
As Stichting Sanquin Bloedvoorziening's profit and loss account for 2017 is recognized in the consolidated annual accounts, the notes to the individual company annual accounts are limited to the balance sheet and profit and loss account. To enlarge the insight for the benefit of the person consulting the annual accounts, the individual company annual accounts contain a full profit and loss account.

1.6 Related parties
Any legal entity on which dominant control, joint control or significant control can be exercised is regarded as a related party. Legal entities that can exercise dominant control are also regarded as related parties. The board members according to the Articles of Association, other key officers in Sanquin management positions and close relatives are affiliates.

Significant transactions with related parties are explained in the notes, in so far as they have not been entered into at arm's length. The nature and scope of the transaction and any other information necessary to obtain an understanding are specified in the notes.

1.7 Acquisitions and divestments of group companies
As of the takeover date, the results and identifiable assets and liabilities of the company acquired are included in the consolidated annual accounts. The takeover date is the moment at which dominant control can be exercised on the company in question.

The acquisition price includes the amount of money or its equivalent in kind that has been agreed for the acquisition of the business acquired, plus any directly attributable costs. If the acquisition price exceeds the net amount of the fair value of the identifiable assets and liabilities, the excess will be capitalized as goodwill under the intangible fixed assets. If the acquisition price is less than the net amount of the fair value of the identifiable assets and liabilities, the difference (negative goodwill) will be entered under accrued liabilities and deferred income. Where the amount of the positive and negative goodwill set off results in an asset, this amount will be presented and explained under intangible fixed assets.

The companies involved in the consolidation will remain included in the consolidation until they are sold; the consolidation takes place at the moment that dominant control is transferred.

1.8 Cash flow statement
The cash flow statement was drawn up using the indirect method. The cash in the cash flow statement consists of cash, bank balances and immediately callable deposits with a maturity of less than a year. Cash flows in foreign currencies are converted at average rates of exchange. Foreign exchange differences with regard to cash and cash equivalents are presented separately in the cash flow statement. Income and expenditure relating to interest, dividend received and tax on profits are accounted for in the cash flow from operations. Paid dividends are recognized as elements of the cash flow from financing. The acquisition price of any group company acquired is included in the cash flow from investments in so far as payment was made in cash. Transactions not involving any incoming or outgoing cash flow are not recognized in the cash flow statement.

2. General principles

2.1 General
The consolidated annual accounts were drawn up in accordance with the statutory provisions of Title 9 of Book 2 Dutch Civil Code and the firm statements of the Annual Reporting Guidelines, published by the Dutch Accounting Standards Board. The annual accounts have been drawn up using euros.
Assets and liabilities are in general valued at acquisition or manufacturing price. Unless a specific valuation principle is mentioned, valuation is at acquisition price. Reference numbers are included in the balance sheet, the profit and loss account and the cash flow statement. These numbers refer to the notes.

2.2 Comparison with the preceding year
The accounting policies have not changed since last year.

2.3 Foreign currencies

2.3.1 Functional currency
The items in the annual accounts of the group companies are valued with due observance of the currency of the economic environment in which that group company is primarily active (the functional currency). The consolidated annual accounts have been drawn up using euros; this is both the functional and the presentation currency of Sanquin.

2.3.2 Transactions, accounts receivable and liabilities
Transactions in a foreign currency during the period under review are recognized in the annual accounts at the exchange rate applicable at the transaction date.

Monetary assets and liabilities in foreign currencies are translated at the exchange rates applicable at the balance sheet date. The exchange differences resulting from settlement and conversion are credited or debited to the profit and loss account.

Non-monetary assets that are valued on the basis of the acquisition price in a foreign currency are converted at the exchange rate applicable at the transaction date.

2.4 Leasing
Stichting Sanquin Bloedvoorziening may have concluded leases under the terms of which a large part of the ownership-associated advantages and disadvantages is not vested in the Foundation. These leases are recognized as operational leasing. Liabilities arising from operational leasing are recognized on a straight-line basis in the profit and loss account for the term of the contract, taking into account any payment received from the lessor.

3. Asset and liability accounting principles

3.1 Tangible fixed assets
Land and buildings are valued at acquisition price plus additional expenses or manufacturing price less linear depreciations during the estimated economic life. Land is not depreciated.

Tangible fixed assets under construction are not depreciated until they are being used.

Impairment expected on the balance sheet date is taken into account. In order to determine whether an impairment is applicable for a tangible fixed asset, reference is made to paragraph 3.3.

Other fixed assets are valued at acquisition price or manufacturing price plus directly attributable costs, less linear depreciations during the expected future life or value in use, whichever is the lower. The acquisition price consists of the purchase price of raw materials and consumables that can be directly attributed to the manufacturing, including installation costs. The cost of implementing software is taken directly to the result.

There is no obligation to repair the asset once it is no longer used. No maintenance reserve has been created for major maintenance of the buildings. The cost thereof is directly recognized in the result.

3.2 Financial fixed assets

3.2.1 Participating interests
Participating interests in group companies and other participating interests on which significant control can be exercised, will be valued in accordance with the net asset value method. Where 20% or more of the votes can be exercised, one may assume that there is significant control.

The net asset value is calculated according to the principles applicable to these annual accounts.

If the valuation of any participating interest according to the net asset value is negative, it will be valued at nil. If and in so far as Stichting Sanquin Bloedvoorziening in this situation guarantees all or part of the debts of the participating interest, or has the firm intention to enable the participating interest to pay its debts, a provision will be made.

Initial valuation of participating interests acquired is based on the fair value of the identifiable assets and liabilities at the time of acquisition. The principles applicable to these annual accounts apply to any subsequent valuation, based on the values arrived at during initial valuation.

Participating interests on which no significant control can be exercised are valued at acquisition price. If there is a permanent downward value adjustment, valuation will take place at this lower value; depreciation will be taken to the profit and loss account.

3.2.2 Accounts receivable
The accounts receivable recognized under financial fixed assets are initially valued at fair value, less transaction costs (if significant). Accounts receivable are subsequently valued at amortized realizable value. Impairment is directly recognized in the profit and loss account.

3.3 Impairment of fixed assets
At every balance sheet date, the Foundation assesses whether there are any indications for assuming that a fixed asset may be subject to impairment. If there are such indications, the realizable value of the asset will be established. If it is not possible to establish the realizable value of an individual asset, the realizable

value of the cash-flow generating entity to which the asset belongs will be determined. An impairment is recognized if the book value of an asset exceeds the realizable value; the realizable value is the realizable value or the value in use, whichever is the higher. Loss due to impairment is recognized directly as an expense in the profit and loss account while simultaneously decreasing the book value of the asset in question.

The realizable value is initially derived from a binding sale contract; in the absence of this, the realizable value is calculated on the basis of the active market, whereby it is usual for the current offer price to be taken as the market price. To calculate the value in use, an estimate is made of future net cash flows on the basis of continued use of the active / cash-flow generating entity; these cash flows are then discounted at a discount rate of 2% (2016: 2%).

If it is established that an impairment that was recognized in the past no longer exists or has decreased, then the increased book value of the relevant asset will not be set any higher than the book value that would be set if no impairment of the asset had been recognized.

At every balance sheet date, the Foundation will also assess for financial instruments whether there is any objective indication of impairment of a financial asset or a group of financial assets. Where there are objective indications of impairment, the company will determine the scope of the loss as a result of impairment, and will recognize this directly as an expense in the profit and loss account.

In the case of financial assets valued at amortized cost, the amount of the impairment will be calculated as the difference between the book value and the market value.

3.4 Inventory

3.4.1 Costs of raw materials and semi-finished products
The raw materials are plasma and consumables. This inventory is valued at (average) cost or market value, if lower. Changes to the average cost are translated into an adjusted value of the inventory by entering a revaluation result. Obsolete inventory is valued at nil, where necessary.

The semi-finished products, including any work in progress on the balance sheet date, are valued at directly spent cost plus a surcharge for direct manufacturing cost, or the market value, if lower. Obsolete inventory is valued at nil, where necessary.

3.4.2 Finished goods and goods for resale
The finished goods inventory is valued at raw material cost plus the directly attributable manufacturing cost, or their market value, if lower. Obsolete inventory is valued at nil, where necessary.

Goods for resale are valued at acquisition price or lower market value. Changes to the recent acquisition prices are translated into an adjusted value of the inventory by entering a revaluation result. Obsolete inventory is valued at nil, where necessary.

3.4.3 Contract manufacturing work in progress
The plasma to be subjected to fractionation or the semi-finished products for any contract manufacturing work in progress is supplied by the contracting party in question and remains property of that party during the entire manufacturing process. Therefore, these are not valued by Sanquin. The value added by Sanquin as at the balance sheet date is recognized as work in progress.

3.5 Accounts receivable
Accounts receivable are valued at fair value of the goods/services provided at initial recognition. Trade receivables are subsequently valued at amortized cost. If payment of the receivable is deferred as a result of an extended payment period agreed upon, the fair value will be determined on the basis of the cash value of the amounts expected to be received, and taken as interest income to the profit and loss account on the basis of the effective interest rate. Provisions for doubtful debts are taken from the book value of the account receivable.

3.6 Cash and cash equivalents
Cash and cash equivalents consist of cash, bank balances and immediately callable deposits with a maturity of less than a year. Current account liabilities at banks are recognized under debts to credit institutions, under current liabilities. Cash and cash equivalents are valued at nominal value.

3.7 Provisions

3.7.1 General
Provisions are created for obligations enforceable at law or actual obligations existing at the balance sheet date, which are likely to require resources to be spent and the scope of which can be estimated reliably.

The provisions are valued against the best estimate of the cash value of the amounts that are necessary to settle the liabilities on the balance sheet date. The provisions are valued at nominal value of the expenses that are expected to be necessary to meet the obligations, unless otherwise stated.

3.7.2 Employee provisions
The employee provisions consist of obligations with regard to reorganizations, irregular hours allowances, anniversary bonuses, continued salary payment for employees who have a long-term illness and other employee claims.

3.7.3 Deferred tax assets and liabilities
Deferred tax assets and liabilities are recognized for temporary differences between the value of the assets and liabilities according to tax rules and the book values used in these annual accounts. The deferred tax assets and liabilities are calculated at the tax rates applicable at the end of the year under review, or at the rates applicable in the next few years, in so far as determined by law.

Deferred tax assets under deductible differences and available loss carried forward are recognized in so far as it is likely that there will be future tax profit with which losses can be carried forward and deduction possibilities can be used.

Deferred taxes are recognized for temporary differences with regard to group companies, participating interests and joint ventures, unless Sanquin can determine the end of the temporary difference and the temporary difference is not likely to end in the foreseeable future.

Deferred taxes are valued at nominal value.

3.8 Liabilities
Liabilities are valued at fair value when first recognized. Transaction costs that can be imputed to the acquisition of the liabilities are directly taken to the profit and loss account. Liabilities are subsequently valued at amortized cost. The portion of the long-term liabilities that is redeemed in the coming financial year will be recognized under current liabilities.

4. Principles for the determination of results

4.1 General
The result is determined as the difference between the realizable value of the goods supplied / services rendered and the cost and other expenses during the year. The result of transactions is recognized in the year in which it is realized; losses can be realized as soon as they are foreseeable.

4.2 Revenue recognition

4.2.1 Sale of goods
The revenues of the sale of goods are recognized as soon as all significant rights and risks with regard to the ownership of the goods have passed to the buyer.

4.2.2 Sale of services
The revenues of rendered services are recognized if and in so far as the relevant services have actually been rendered.

4.2.3 Exchange differences
Exchange differences arising from the settlement of monetary items are taken to the profit and loss account in the period in which they arise.

4.3 Net turnover
Net turnover comprises the revenues of supplying goods and rendering services less rebates and the like, and less taxes levied on turnover, and after elimination of intra-group transactions.

4.4 Other operating income
Other operating income includes income from licenses and product development for third parties, and costs passed on to third parties.

4.5 Costs of raw materials and consumables
The raw materials and consumables are the raw materials used that can be directly imputed to the net turnover, and manufacturing cost at cost, or the direct cost where it concerns goods for resale. This also includes, where appropriate, the downward adjustment of inventory to a lower market value and any provisions made for obsolete inventory.

4.6 Payments to staff

4.6.1 Remunerations payable regularly
Wages, salaries, social security contributions and pension contributions payable pursuant to the terms and conditions of employment, are recognized in the profit and loss account in so far as they are due to the employees.

4.6.2 Pensions
In the Netherlands, Stichting Sanquin Bloedvoorziening uses the services of Pensioenfonds Zorg & Welzijn for its pension scheme. The employees eligible to join this scheme will be entitled, at the pensionable age, to a pension based on the average wage earned, calculated over the years that the employee built up pension via Pensioenfonds Zorg & Welzijn.

The liabilities arising from the employees' rights are placed with Pensioenfonds Zorg & Welzijn. Sanquin

pays pension contributions for this, half of it borne by the employer and the other half by the employee. The pension entitlements are indexed annually, if permitted by the pension fund's funding ratio (the equity of the pension fund divided by its future financial obligations).

Based on the situation as at 31 December 2017, the policy funding ratio of the pension fund is 98.6% (source: website www.pfzw.nl dated 19 March 2018). The pension fund should have a policy funding ratio of at least 104.3% to avoid the implementation of exceptional increases in premiums. Sanquin has a defined benefit scheme and therefore no obligation to pay additional contributions in the event the pension fund has a deficit, other than the effect of higher future pension contributions. Therefore, Sanquin has only recognized the contributions due until the end of the financial year as an expense in the profit and loss account. Pre-paid contributions will be recognized as prepayments and accrued income if this results in a repayment or in a reduction of future contributions. Any unpaid contributions shall be recognized as a liability in the balance sheet. The pension schemes of foreign subsidiaries that are comparable in organization and function to the Dutch pension system are also recognized in accordance with this approach. Where foreign pension schemes are not similar, a best estimate will be made of the liabilities as at the balance sheet date, on the basis of an actual valuation method that is generally accepted in the Netherlands.

4.7 Depreciation of tangible fixed assets
Tangible fixed assets are depreciated in a straight line as of the moment of first use based on the expected future useful life. There is no depreciation in respect of Land and buildings and Tangible fixed assets under construction. If the estimate of their economic life changes, the future depreciation is adjusted accordingly. Book profits and losses on any non-recurrent sale of tangible fixed assets are recognized under 'depreciation'.

4.8 Financial income and expenditure
Interest income and interest payable are recognized on a time-weighted basis, taking into account the effective interest rate of the relevant assets and liabilities. Recognition of the interest payable takes account of the recognized transaction costs relating to loans received.

4.9 Taxes
Taxes on the result are calculated on the results before taxes in the profit and loss account, taking into account available, tax-compensatable losses from previous financial years (in so far as not included in deferred tax assets), exempt profit elements and tax investment facilities, and after the addition of non-deductible costs. Changes to deferred tax assets by virtue of changes to the applied tax rate are also taken into account.

4.10 Result from participating interests (valued at net asset value)
The result is the amount by which the book value of the participating interest has changed since the previous annual accounts, as a consequence of the result achieved by the participating interest, in so far as this is attributed to the company.

5. Financial instruments and risk management

5.1 Market risks

5.1.1 General
Stichting Sanquin Bloedvoorziening is exposed to various financial risks: price risk (including currency risk, market risk and interest and cash flow risks), credit risk and liquidity risk. The scope of these risks in the day-to-day operations does not require financial instruments to hedge them. The financial risks are managed centrally by the Finance & Control department on the basis of a policy adopted by the Executive Board.

5.1.2 Price risk
Stichting Sanquin Bloedvoorziening is exposed to risks relating to raw materials and energy prices. This risk is managed by being as little dependent as possible on particular suppliers, by centralizing procurement where possible and by making long-term price agreements with suppliers where possible. When entering into procurement relationships, the starting point is to aim at price increases that fall within the margins of the government rules for price compensation for health care budgets.

5.1.3 Currency risk
Stichting Sanquin Bloedvoorziening is primarily active within the European Union and the United States of America. If significant long-term supply obligations are assumed, such as for the supply of Cinryze to the American market, price agreements are in principle made in euros, even if a product is supplied to countries outside the EU.

The rest of the transactions in foreign currencies both in terms of procurement and sales are comparatively small, and any risk resulting from them is therefore not hedged.

5.1.4 Interest and cash flow risk
Stichting Sanquin Bloedvoorziening runs an interest risk on the interest-bearing accounts receivable (in particular under financial fixed assets and cash and cash equivalents) and interest-bearing long-term and current liabilities (including liabilities to credit institutions).

As for assets and liabilities with variable interest agreements, Sanquin runs a risk in respect of future cash flows; as for assets and liabilities with a fixed interest rate, Sanquin runs risks in respect of their market value.

As for these assets and liabilities, no contracts for financial derivatives have been concluded with respect to interest risks.

5.2 Credit risk
Stichting Sanquin Bloedvoorziening does not have any significant concentrations of credit risk. Short shelf-life blood products are sold to Dutch hospitals. Long shelf-life blood products are only sold to buyers that meet Sanquin's credit rating. The sale is done on the basis of a credit term varying from 14 to 60 days. For major orders, additional security may be requested, including prepayments and guarantees, or credit insurance policies are taken out.

Sanquin Plasma Products realizes a large part of its contract manufacturing turnover in a limited circle of business contacts. Credit ratings for these business contracts do not give any cause for hedging this credit risk with financial instruments.

5.3 Liquidity risk
Stichting Sanquin Bloedvoorziening uses the services of several banks in order to have several credit facilities at its disposal. Where necessary, further security is furnished to the bank for the credit facilities made available. Since August 2015, Sanquin has been bound by a bank covenant (see for more information paragraph 14: *Long-term liabilities).*

Notes to the balance sheet

6. Tangible fixed assets

The changes in tangible fixed assets are as follows:

	Land and buildings	Plant and equipment	Other tangible fixed assets	Tangible fixed assets under construction	Total
(× € 1,000)	€	€	€	€	€
BALANCE AS AT 1 JANUARY 2017					
Acquisition prices or manufactoring costs	133,809	231,876	18,861	6,985	391,531
Cumulative depreciations	–52,773	–151,414	–14,948	–	–219,135
Net book value	**81,036**	**80,462**	**3,913**	**6,985**	**172,396**
CHANGES					
Investments	533	9,429	1,487	7,720	19,169
Disposals	–73	–3,821	–332	–	–4,226
Reclassification of investments	420	16,202	–14,297	-811	1,514
Reclassification of depreciation	–	–12,026	10,413	–	–1,613
Depreciation	–7,056	–20,959	–611	–	–28,626
Depreciation of sales	–	–129	–	–	–129
Depreciation of disposals	73	3,821	327	–	4,221
Balance	**–6,103**	**–7,483**	**–3,013**	**6,909**	**–9,690**
BALANCE AS AT 31 DECEMBER 2017					
Acquisition prices or manufactoring costs	134,689	253,686	5,719	13,894	407,988
Cumulative depreciations	–59,756	–180,707	–4,819	–	–245,282
NET BOOK VALUE	**74,933**	**72,979**	**900**	**13,894**	**162,706**
Depreciation rates	0%–10%	10%–20%	20%–33%	0%	

Investments in projects that are still in progress at the balance sheet date are recognized under 'Tangible fixed assets under construction'. Upon completion, these projects will be recognized under 'Land and buildings', 'Plant and equipment' or 'Other tangible fixed assets'. The associated write-off of 'Tangible fixed assets under construction' is visible as a negative item under 'Reclassifications'. The other items in 'Reclassifications' concern the transfer of investments that in previous financial years had been presented under other headings.

Part of the tangible fixed assets is funded with loans for which collateral was provided (see also paragraph 14: *Long-term liabilities).*

The assets are at the free disposal of Sanquin, except for the manufacturing facilities which were funded with the loan extended by a CMO partner (see for more information paragraph 14: *Long-term liabilities).*

The actual value of the fixed assets does not significantly differ from the net asset value.

In 2017, the investments in tangible fixed assets exceeding € 1.0 million were:

	Investments in tangible fixed assets
(× € 1,000)	€
Implementation NCI/RTU	1,826
Decentralisation Powe supply	3,607
Lumos Mass Spectrometer	1,016

7. Financial fixed assets

The changes in financial fixed assets can be specified as follows:

	Participating interests	Loans provided	Total
(× € 1,000)	€	€	€
Balance as at 1 January 2017	–	**2,625**	**2,625**
Investments	333	–	333
Result from participating interests	–	–	–
Disposals	–333	–	–333
Repayment obligation 2018	–	–375	–375
BALANCE AS AT 31 DECEMBER 2017	**–**	**2,250**	**2,250**

Participating interests
In 2012, Sanquin acquired a financial participating interest in Xenikos BV, based in Nijmegen. Xenikos is a biotechnology company that develops an experimental drug, T-Guard®. T-Guard® is a pharmaceutical product used for treating serious rejection reactions in patients after they had blood stem cell from a donor transplanted: Graft-Versus-Host Disease (GVHD).

Sanquin's shareholding fell, as a result of the issue of extra shares in July 2017 from 36.4% to 34.05%. In 2017, Sanquin made an additional € 0.3 million investment in the share capital of Xenikos. Due to the negative equity of Xenikos as at 31 December 2017, Sanquin's shareholding was written down completely. Sanquin Holding BV provided a suretyship of € 3.3 million for the obligations of Xenikos under an innovation credit in favor of Xenikos.

Loans provided
The financial fixed assets include a loan of € 3.75 million that was extended in 2014 to Stichting Medisch Centrum Slotervaart (MCS). MCS is a partnership between Sanquin, NKI-AVL, Slotervaartziekenhuis and Cordaan's Verpleeghuis Slotervaart, within which the joint access roads and parking facilities are operated. The loan was extended for building a new car park for personnel and visitors of the four institutions, which was completed in 2014. The loan has a 10-year term, will be repaid in a straight line over 10 years and has an interest rate of 4%. For this loan, no collaterals have been provided. The valuation of the amounts due at repayment value approximates their amortized value. The repayment obligations within 12 months of expiry of the financial year are recognized under 'other receivables'.

8. Inventory

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Costs of raw materials and semi-finished products	106,578	86,919
Contract manufacturing work in progress	28,124	21,678
Finished goods and goods for resale	25,628	43,599
	160,330	**152,196**

In the context of obsolete inventory, the value of the inventory was adjusted downward by € 26.6 million (in 2016: € 28.0 million) and the finished product and semi-finished product value by € 0.6 million (2016: € 0.3 million) as a result of changes in raw materials prices. The downward adjustment for obsolete inventory is based on the actual rejection of products in 2017 that is projected to inventory at year end, and includes the actual blocked inventory at the end of 2017. The downward adjustments are deducted from inventory value as provision for inventory at the balance sheet date.

The inventory valued at a lower realizable value has a book value at the balance sheet date of € 3.2 million (2016: € 4.3 million).

The inventory is at the free disposal of Sanquin. An exception to this is the work in progress relating to contract manufacturing for third parties. Under those contracts, the contracting party supplies Sanquin with the semi-finished products or the plasma that requires a fractionation process. This plasma and the semi-finished and final products based on it remain the property of the contracting party during the entire manufacturing process. The value added by Sanquin as at the balance sheet date is recognized as work in progress.

9. Accounts receivable

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Trade accounts receivable	66,617	76,981
Taxes and social security contributions	7,216	9,029
Other receivables, prepayments and accrued income	7,101	8,825
	80,934	**94,835**

The fair value of the accounts receivable approximates to the book value, given the short-term nature of the accounts receivable and the fact that a doubtful debt provision has been created, where necessary. All accounts receivable will mature within one year.

Trade accounts receivable

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Trade accounts receivable	67,264	77,391
Provision for doubtful debts	–647	–410
	66,617	**76,981**

Taxes and social security contributions

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Turnover tax	7,062	9,029
Corporation tax	154	–
	7,216	**9,029**

Other receivables, prepayments and accrued income

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Security deposits	155	99
Prepaid expenses	1,829	2,223
Repayment obligations 2018	375	375
Income and cheques to be received	4,742	6,128
	7,101	**8,825**

No security has been furnished to other parties in respect of the accounts receivable.

10. Cash and cash equivalents

The item 'Cash' in the cash flow statement is comprised as follows:

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Cash	49	15
Bank balances	53,747	53,707
Deposits	4,487	4,484
	58,283	**58,206**

All cash and cash equivalents are at the company's free disposal. The deposits will all mature within one year.

11. Notes to the cash flow statement

'Investment in tangible fixed assets' only includes investments for which funds were sacrificed in 2017. 'Investments in financial fixed assets' recognizes the annual repayment received on the loan to MCS.

The annual repayment on the long-term loan with ABN AMRO Bank NV and the incidental repayment on the CMO loan are included under 'Repayment of long-term liabilities'. The transfer of € 24.9 million of the CMO loan from a long-term to liability to a current liability is not recognized in this cash flow statement.

12. Group equity

The equity is further explained in the notes to the balance sheet in the company annual accounts.

13. Provisions

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Deferred tax liability	4,618	5,501
Employee provisions	4,185	2,859
Other provisions	468	355
	9,271	**8,715**

The changes in the provisions are as follows:

	Deferred taxes	Employee provisions	Other provisions	Total
(× € 1,000)	€	€	€	€
As at 1 January 2017	5,501	2,859	355	8,715
Additions	–	1,481	113	1,594
Withdrawal	–883	–155	–	–1,038
BALANCE AS AT 31 DECEMBER 2017	**4,618**	**4,185**	**468**	**9,271**

The provisions qualify for € 2.9 million (2016: € 1.5 million) as current (under one year) and € 6.4 million (2016: € 7.2 million) as long-term (over one year) liabilities.

Deferred taxes
For the differences between the valuation of items on the PIBe balance sheet for tax purposes and for corporate purposes that result in future liabilities to pay corporate income tax, a deferred taxes provision has been created. The provision can be regarded as a long-term provision (over one year).

Employee provisions
As at 31 December 2017 employee provisions consist of obligations relating to reorganizations, irregular hours allowances, anniversary bonuses, continued salary payment to employees with a long-term illness and other employee claims.

Other provisions
The other provisions have been created for pending claims and legal disputes.

14. Long-term liabilities

	CMO loan	Liabilities to credit institutions
(× € 1,000)	€	€
Balance as at 1 January 2017	25,324	17,143
Repayments for the current financial year	–394	–
Repayment obligations for the next financial year	–24,930	-2,857
BALANCE AS AT 31-12-2017	**–**	**14,286**

The CMO loan extended by a contract manufacturing partner was taken out to fund the process installations for the manufacturing activities for this partner. The loan will expire in 2024, and no interest is due on the outstanding amount. For these loans, security has been furnished with regard to the specific processing installations that have been installed for the contract manufacturing activities. Further agreements were reached for the loan to be paid off in full in the financial year 2018. The loan was therefore recognized fully as a current liability as at 31 December 2017.

In 2015, a loan of € 20 million was taken out at ABN AMRO Bank NV. The loan has an 8-year term and the interest payable is 3.32%. As of 1 January 2017, this loan will be repaid by quarterly installments. In respect of this loan, Sanquin has furnished security in the form of rights of mortgage and pledged receivables. In addition to Stichting Sanquin Bloedvoorziening, its group companies Sanquin Holding BV, Sanquin Plasma Products BV, Sanquin Reagents BV, Sanquin Diagnostiek BV and Euroclone BV are jointly and severally liable for this loan. Sanquin meets all covenants associated with the loan.

In addition to the existing loans, Sanquin agreed on a credit facility of € 8 million maximum with a lending institution. This facility was not used in 2017.

	Balance as at 31 December 2017	Repayment obligations 2018	Remaining term > 1 year	Remaining term > 5 year
(× € 1,000)	€	€	€	€
Loans	24,930	24,930	–	–
Liabilities to credit institutions	17,143	2,857	11,427	2,859
BALANCE AS AT 31 DECEMBER	**42,073**	**27,787**	**11,427**	**2,859**

The repayment obligations within 12 months of expiry of the financial year as explained above are recognized under 'current liabilities'.

The valuation of the long-term liabilities at repayment value approximates their amortized cost.

15. Current liabilities

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Repayment obligations	2,857	2,857
Trade creditors	18,099	42,593
Taxes and social security contributions	8,094	12,064
Pension contributions	2,541	1,606
Salaries and holiday allowance	26,150	23,146
CMO partners	25,914	6,484
Research funds received in advance	4,112	5,204
Other liabilities and accrued expenses	22,128	14,887
	109,895	**108,841**

The fair value of the current liabilities approximates to the book value because of their short-term nature. The current liabilities will all mature within one year.

Taxes and social security contributions

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Social security contributions	421	405
Payroll tax	7,673	6,777
Corporation tax	–	4,882
	8,094	**12,064**

CMO partners
This post recognizes the current liability element of the long-term CMO loan.

Other liabilities and accrued expenses
The increase in other liabilities and accrued expenses is chiefly explained by a parallel decline in the balance 'Liabilities to suppliers and trade credit'.

16. Off-balance sheet assets and liabilities

Investment obligations
As at the balance sheet date, Sanquin and its group companies have assumed investment obligations amounting to € 25.3 million. These are investments to benefit business premises, utilities, fleet, equipment for preparing plasma-based products and laboratory equipment. The investment obligations will all mature within one year.

Operating leases
Sanquin leases donor centres in many different locations. The annual liability under these leases amounts to € 3.4 million. The various leases have terms between 1 and 5 years.
In particular with regard to the fleet, leases were concluded with an annual financial payment obligation amounting to € 0.9 million. Leases have a maximum term of 7.5 years.

The obligations from operational leases at the end of the reporting period can be specified as follows:

(× € 1,000)	€
To pay within one year	5,304
To pay between one and five years	12,725
To pay after five years	1,920
	19,949

The total of the expected future minimum sub-lease revenue to be received in is respect of early terminable sub-leases amount to € 0.1 million.

During the year under review the following amounts were recognised in the income statement:

(× € 1,000)	€
Minimum lease payments	6,977
Minimum lease payments including other components	1,317
Sub-lease receipts	–34
	8,260

If the reported lease payments include payments relating to other components of the agreement, the payments including these other components are reported separately.

Ground-lease obligations
For the use of the land at Plesmanlaan 125, Stichting Sanquin Bloedvoorziening and Sanquin Holding have entered into ground leases for a term ending at the end of 2031. The total minimum obligation of these ground-lease obligations is € 0.2 million.

For the use of the land at De Tyraslaan 75 and De Tyraslaan 109, PIBe has entered into ground-lease obligations for terms ending at the end of 2032 and 2052, respectively. The total minimum obligation of these ground-lease obligations is € 5.5 million.

Bank guarantees and suretyships
Bank guarantees worth € 2.2 million were furnished to various contracting parties. Moreover, Sanquin Holding issued a contract of suretyship for Xenikos' liability under an innovation credit facility of € 3.3 million.

17. Off-balance-sheet schemes

Notice of liability
For its wholly-owned subsidiaries Sanquin Plasma Products BV, Sanquin Reagents BV, Sanquin Diagnostiek BV and Euroclone, Sanquin Holding issued a notice of liability as referred to in Section 403 of Book 2 Dutch Civil Code.

Support Letter
Support Letter
For its subsidiary PIBe Sanquin Holding issued a support letter by which it undertook to provide financial support to the development of activities and the operations of PIBe as a going concern. This support letter remains valid up to approval by the general meeting of shareholders of the annual accounts for the financial year 2018.

Liability of a tax entity
As of 1 January 2017 Sanquin Holding BV, together with its wholly-owned Dutch subsidiaries, a tax entity for the purposes or corporate income tax. The Foundation and its wholly-owned Dutch subsidiaries, with the exception of Euroclone BV, form a tax entity for the purposes of turnover tax (VAT). The entities within the tax entity are ach jointly and severally liable for the tax payable by the tax entity.

18. Post-balance sheet events

No material events took place after the balance sheet date.

Notes to the profit and loss account

19. Net turnover

The net turnover can be classified as follows on the basis of geographical areas:

	2017	2016
(× € 1,000)	€	€
The Netherlands	219,472	219,238
Outside the Netherlands	213,720	169,418
	433,192	**388,656**

Net turnover can also be classified on the basis of the following main categories:

	2017	2016
(x € 1,000,-)	€	€
Blood Bank Turnover	125,833	124,130
Plasma products Turnover	264,148	221,833
Diagnostics Turnover	21,157	21,152
Reagents Turnover	15,250	14,121
Research Turnover	6,144	6,135
Other activities Turnover	660	1,285
	433,192	**388,656**

20. Other income

	2017	2016
(× € 1,000)	€	€
CMO partners' contribution to compliance costs	4,426	29,422
Licencing and product development income	10,038	12,679
Other operating income	5,219	16,105
	19,683	**58,206**

The decrease in the contribution of CMO partners to compliance costs is the result of a change to the terms agreed on this matter. The fall in other income is chiefly explained by the recognition on the financial year 2016 of a single release of € 8.4 million.

21. Salaries and wages

	2017	2016
(× € 1,000)	€	€
Salaries and wages	165,019	158,807
Social security contributions	24,639	22,981
Pension contributions	11,083	10,404
	200,741	**192,192**

22. Average number of employees

An average of 2,706 employees were in service during 2017 based on a full-time employment relationship (2016: 2,611). Of this number, 330 employees were employed abroad (2016: 307).

	2017	2016
Blood Bank Division	762	753
Research Division	264	230
Diagnostics Division	–	222
Reagents Division	–	61
Support staff	385	376
Tissues & Cells Business Unit	12	16
Total Stichting Sanquin Bloedvoorziening	**1,423**	**1,658**
Sanquin Plasma Products BV	709	646
Sanquin Diagnostiek BV	181	–
Sanquin Reagents BV	63	–
Plasma Industries Belgium CVBA	321	298
Sanquin Oy	9	9
	2,706	**2,611**

23. Remuneration of Executive Board

A justification of the remuneration paid to the members of the Executive Board under the Dutch Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act) (Wet Normering bezoldiging Topfunctionarissen publieke en semipublieke sector (WNT)) can be found in the Remuneration of Senior Officials annex to these annual accounts.

24. Remuneration Supervisory Board

A justification of the remuneration paid to the members of the Supervisory Board under the Dutch Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act) can be found in the Remuneration of Senior Officials annex to these annual accounts.

25. Depreciation charges

	2017	2016
(× € 1,000)	€	€
Intangible fixed assets	–	656
Tangible fixed assets	28,755	31,076
	28,755	**31,732**

The depreciation charges for intangible fixed assets in 2016 concerned the amortization charges for the (negative) goodwill.

26. Other operating expenses

	2017	2016
(× € 1,000)	€	€
Other employee costs	13,314	10,895
Accommodation costs	19,727	19,958
Donor costs	3,281	3,054
Transport costs	6,340	7,132
General costs	86,937	89,513
	129,599	**130,552**

The other employee and general costs contain an amount of € 0.2 million (2016: € 0.7 million) and of € 0.2 million (2016: € 1.5 million) respectively as WBSO grants, which were received for research and development as a contribution to various research projects.

General costs

	2017	2016
(× € 1,000)	€	€
Maintenance costs	16,218	14,428
Information, publicity and sales costs	4,580	8,371
Travel, hotel and representation costs	3,219	3,003
Office costs	935	992
Communication costs	3,896	4,124
IT costs	17,911	15,722
Consultancy/auditor's fee	9,564	13,735
External services costs	10,835	15,780
Project costs	13,106	10,067
Insurance and taxes	2,516	3,180
Currency revaluation costs	–199	–
WBSO grants	–212	– 1,490
Other costs	4,568	1,601
	86,937	**89,513**

27. Audit Fees

De volgende bedragen aan accountantshonoraria zijn ten laste van het resultaat gebracht:

	PwC Accountants N.V.	Other PwC N.V. network	Total PwC N.V. network
(× € 1,000)	€	€	€
2017			
Auditing the annual accounts	355	82	437
Other audit services	3	–	3
Tax consultancy	–	–	–
Other non-audit services	61	–	61
	419	**82**	**501**
2016			
Auditing the annual accounts	342	71	413
Other audit services	–	20	20
Tax consultancy	–	–	–
Other non-audit services	–	–	–
	342	**91**	**433**

Bovenstaande honoraria betreffen uitsluitend de werkzaamheden die bij de vennootschap en de in de consolidatie betrokken groepsmaatschappijen zijn uitgevoerd door accountantsorganisaties en externe onafhankelijke accountants zoals bedoeld in art. 1, lid 1 Wta (Wet toezicht accountantsorganisaties). Deze honoraria hebben betrekking op gedurende het boekjaar ontvangen facturen.

28. Financial income and expenditure

	2017	2016
(× € 1,000)	€	€
Interest income	167	151
Interest expenses	–698	–1,162
Income from financial fixed assets	–333	-310
Other financial income and expenditure	–	–1,170
	-864	**–2,491**

Other financial income and expenditure in the financial year 2016 relate to an early redemption penalty paid to Belfius Bank NV in connection with the early repayment of long-term loans.

29. The research and development costs

The research and development costs taken as an expense to the result for 2017 amount to € 31.7 million (in 2016: € 30.3 million).

30. Taxes

As a result of the legal restructuring of the Sanquin group the commercial activities are carried out only by Sanquin Holding BV and its subsidiaries. From the start of the financial year 2017 Stichting Sanquin Bloedvoorziening will carry out only public activities; the Foundation is therefore fully exempt from corporate income tax. This has been confirmed by the Dutch tax authorities which, together with the relevant consequences for Dutch tax, is set out in an agreement.

	2017	2016
(× € 1,000)	€	€
Corporate income tax for this financial year	–4,311	–6,775
Corporate income tax for prior financial years	440	–
Deferred corporate income tax	879	232
	–2,992	**–6,543**

Tax on the result of Sanquin Holding BV and its subsidiaries is calculated at 25% (2016: 25%) of the result before tax in the profit and loss account. For 2016 and 2017 the effective tax rate over the current financial year varies between 22% and 31%. The chief cause of the variation is the loss-making result before tax of PIBe for which, as a precaution, no tax asset is recognized, the result of Stichting Sanquin Bloedvoorziening that is exempt from corporate income tax and the non-deductive costs from the result before tax.

Following discussion concerning the scope of the Foundation's corporate income tax, agreement has been reached with the Dutch tax authorities in respect of the years 2013 to 2016, inclusive. Consequently, the definitive tax assessments for the years 2013 and 2014 have already been received by the Foundation. Sanquin adopts a conservative approach in its corporate income tax returns, thus avoiding a situation whereby it could be faced with unexpected tax liabilities or interest on taxes.

31. Result from participating interests

	2017	2016
(× € 1,000)	€	€
Result CAF-DCF BVBA (formerly CAF-DCF M&S)	–	1,357
Proceeds sale CAF-DCF BVBA (formerly CAF M&S)	–	–1,455
	–	**–98**

COMPANY ANNUAL ACCOUNTS

Balance sheet as at 31 December 2017 (before appropriation of result)

		31 December 2017		31 December 2016	
(× € 1,000)	Ref.	€	€	€	€
ASSETS					
Fixed assets					
Tangible fixed assets	33	46,206		80,454	
Financial fixed assets	34	282,644		241,008	
			328,850		**321,462**
Current assets					
Inventory	35	3,953		5,651	
Accounts receivable	36	30,572		44,401	
Cash and cash equivalents	37	30,781		24,589	
			65,306		**74,641**
			394,156		**396,103**
LIABILITIES					
Equity	39				
Foundation capital		1,957		1,957	
Special-purpose reserve	40	7,976		7,976	
Other reserves		310,302		296,100	
Result for the financial year		10,816		14,202	
			331,051		**320,235**
Provisions	41		**2,394**		**2,256**
Long-term liabilities	42		**14,286**		**17,143**
Current liabilities	45		**46,425**		**56,469**
			394,156		**396,103**

Profit and loss account for 2017

			2017		2016
(× € 1,000)	Ref.	€	€	€	€
Net turnover		169,223		201,180	
Changes in inventory of finished product and work in progress		–128		–681	
Other operating income		4,044		4,856	
Total operating income			**173,139**		**205,355**
Costs of raw materials and consumables		27,040		33,657	
Salaries and wages		84,639		92,042	
Social security contributions, including pensions		17,536		20,363	
Depreciation of tangible fixed assets		7,153		9,781	
Other operating expenses		39,779		40,712	
Total operating expenses			**176,147**		**196,555**
Operating result			**–3,008**		**8,800**
Interest income	45		2,229		1,463
Interest expenses	45		–1,464		–719
Results before tax			**–2,243**		**9,544**
Taxes			440		–2,376
Result from participating interests	46		12,619		7,034
RESULT AFTER TAXES			**10,816**		**14,202**

Cash flow statement for 2017

			2017		2016
(× € 1,000)	Ref,	€	€	€	€
CASH FLOW FROM OPERATIONS					
Operating result			–3,008		8,800
Adjustments for:					
Depreciation		7,044		9,781	
Book profit/(loss) sale of tangible fixed assets		–32		–	
Changes in provisions		425		680	
			7,437		**10,461**
Change in working capital:					
Increase/decrease in inventory		118		107	
Increase/decrease in receivables		-7,716		-6,545	
Increase/decrease in current liabilities		9,966		2,364	
			2,368		–4,074
Cash flow from operations			**6,797**		**15,187**
Interest received		2,229		1,463	
Corporation tax		–1,394		–2,376	
Interest paid		–1,464		–719	
Result from participating interests		–		7,034	
			–629		5,402
Cash flow from operations			**6,168**		**20,589**
CASH FLOW FROM INVESTMENTS					
Investments in tangible fixed assets		–8,036		–648	
Disposals in tangible fixed assets		141		–	
Investments in financial fixed assets		10,776		–7,888	
Cash flow from investments			**2,881**		**–8,536**
			9,049		**12,053**
CASH FLOW FROM FINANCING					
Repayment of long-term liabilities		-2,857		-2,857	
Cash flow from financing			**-2,857**		**-2,857**
Net cash flow			**6,192**		**9,196**
INCREASE/DECREASE IN CASH	**37**		**6,192**		**9,196**

The flow of funds is as follows:

	2017	2016
(× € 1,000)	€	€
As at 1 January	24,589	15,393
Change in financial year	6,192	9,196
BALANCE AS AT 31 DECEMBER	**30,781**	**24,589**

Notes to the balance sheet and profit and loss account

32. General

The company annual accounts were drawn up in accordance with the statutory provisions of Title 9 of Book 2 Dutch Civil Code and the firm statements of the Annual Reporting Guidelines, published by the Dutch Accounting Standards Board. The company annual accounts only contain the statutory annual accounts of Stichting Sanquin Bloedvoorziening. Compared to the consolidated annual accounts, the income and expenditure of the majority participating interests in these annual accounts are not recognized in the profit and loss account, but the result of the participating interests is recognized as a separate item in the profit and loss account.

The accounting principles for the company annual accounts and the consolidated annual accounts are the same. Participating interests in group companies are valued according to the net asset value in accordance with paragraph 3.2.1 of the consolidated annual accounts.

For the accounting principles relating to assets and liabilities, please see the notes to the consolidated balance sheet and profit and loss account.

33. Tangible fixed assets

The changes in tangible fixed assets are as follows:

	Land and buildings	Plant and equipment	Other tangible fixed assets	Tangible fixed assets under construction	Total
(× € 1,000)	€	€	€	€	€
BALANCE AS AT 1 JANUARY 2017					
Acquisition prices or manufactoring costs	94,091	66,447	4,395	2,294	167,227
Cumulative depreciations	–33,836	–49,518	–3,419	–	–86,773
Net book value	**60,255**	**16,929**	**976**	**2,294**	**80,454**
CHANGES					
Investments	237	2,817	46	4,944	8,044
Depreciation	–2,704	–3,923	–417	–	–7,044
Depreciation of sales	–	–109	–	–	–109
Disposals	–73	–1,817	–327	–	–2,217
Depreciation of disposals	73	1,817	327	–	2,217
Transfer to Sanquin Holding	–40,741	–22,072	–50	–2,235	–65,098
Depreciation transfer to Sanquin Holding	16,058	13,881	20	–	29,959
Balance	**–27,150**	**–9,406**	**–401**	**2,709**	**–34,248**
BALANCE AS AT 31 DECEMBER 2017					
Acquisition prices or manufactoring costs	53,514	45,375	4,064	5,003	107,956
Cumulative depreciations	–20,409	–37,852	–3,489	–	–61,750
NET BOOK VALUE	**33,105**	**7,523**	**575**	**5,003**	**46,206**
Depreciation rates	0%–10%	10%–20%	20%–33%	0%	

Investments in projects that are still in progress at the balance sheet date are recognized under 'Tangible fixed assets under construction'. Upon completion, these projects will be recognized under 'Land and buildings', 'Plant and equipment' or 'Other operating fixed assets'.

Transfer to Sanquin Holding
By deed of demerger and incorporation dated 18 May 2017 Sanquin Vastgoed BV was incorporated as a wholly-owned subsidiary of Stichting Sanquin Bloedvoorziening. In this way Stichting Sanquin Bloedvoorziening transferred the real estate that principally serves Sanquin Holding BV and its Dutch subsidiaries to a new company by means of a share premium payment. The transfer comes into effect on 1 January 2017.

On 3 July 2017, with working effect backdated to 1 January 2017, there was a legal merger between Sanquin Vastgoed BV and Sanquin Holding BV, whereby Sanquin Vastgoed BV ceases to exist and Sanquin Holding BV is the acquiring company.

The assets are at the free disposal of Sanquin. The actual value of the fixed assets does not significantly differ from the net asset value.

In 2017, the investments in tangible fixed assets exceeding € 1.0 million were:

	Investements in tangible fixed assets
(× € 1,000)	€
Decentralisation Power supply	3,607
Lumos Mass Spectrometer	1,016

34. Financial fixed assets

The changes in financial fixed assets can be specified as follows:

	Participating interests	Loans provided	Total
(× € 1,000)	€	€	€
Balance as at 1 January 2017	190,097	50,911	241,008
Investments	–	–	–
Disposals	–	–23,337	–23,337
Result from participating interests	12,619	–	12,619
Share premium payment	52,729	–	52,729
Repayment obligation 2018	–	–375	–375
	255,445	**27,199**	**282,644**

List of participating interests
The participating interest held directly by Stichting Sanquin Bloedvoorziening and recognized in full in the consolidated annual accounts is:

	Share in issued capital
in %	
Sanquin Holding BV, Amsterdam	100.00

Participating interests
By deed of demerger and incorporation dated 1 January 2017 Sanquin Reagents BV and Sanquin Diagnostiek BV were incorporated as wholly-owned subsidiaries of Stichting Sanquin Bloedvoorziening. In this way Stichting Sanquin Bloedvoorziening has transferred the activities of its Reagents and Diagnostics divisions to their respective newly incorporated companies.

On 2 January 2017 Stichting Sanquin Bloedvoorziening transferred its shares in subsidiaries Sanquin Reagents BV and Sanquin Diagnostiek BV to Sanquin Holding BV for € 18.0 million and € 1.3 million, respectively, by means of a share premium payment. The transfer comes into effect on 1 January 2017.

On 3 July 2017 there was a legal merger between Sanquin Vastgoed BV and Sanquin Holding BV, whereby Sanquin Vastgoed BV ceases to exist and Sanquin Holding BV is the acquiring company (see also paragraph 33: Tangible fixed assets). In this way a share premium reserve of € 33.5 million has been added to the equity of Sanquin Holding BV.

Loans provided
The financial fixed assets include a loan of € 3.75 million that was extended in 2014 to Stichting Medisch Centrum Slotervaart (MCS). This loan is further explained in the notes to the balance sheet in the consolidated annual accounts.

In addition, the company also extended a loan as of 24 April 2015 amounting to a maximum of € 60.3 million to Sanquin Plasma Products BV as bridging finance for its activities. The loan will expire in 2035, and 4.5% interest is due on the outstanding amount. No security was provided for this loan; in addition, it is subordinated to other existing and future loans extended to Sanquin Plasma Products by banks or other lenders. The outstanding loans at 31 December 2017 amounted to € 24.9 million (2016: € 48.3 million).

The repayment obligations within 12 months of expiry of the financial year are recognized under 'other receivables'. The valuation of the amounts due at repayment value approximates their amortized value.

35. Inventory

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Costs of raw materials and semi-finished products	3,166	3,818
Finished goods and goods for resale	787	1,833
	3,953	**5,651**

In the context of obsolete inventory, the inventory has been written down by € 0.1 million (2016: € 0.1 million) but there has been no write down of the value of finished products and semi-finished products (2016: € 0.2 million) as a result of raw materials price increases.

The inventory is at the free disposal of Sanquin.

36. Accounts receivable

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Trade accounts receivable	20,500	27,943
Taxes and social security contributions	5,084	3,904
Pension contributions	700	–
Amounts due from group companies	1,153	8,870
Repayment obligations	375	375
Other receivables, prepayments and accrued income	2,760	3,309
	30,572	**44,401**

The fair value of the accounts receivable approximates to the book value, given the short-term nature of the accounts receivable and the fact that a doubtful debt provision has been created, where necessary. All accounts receivable will mature within one year.

Amounts due from group companies

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Current account in the name of Sanquin Holding BV	1,406	8,662
Current account in the name of Euroclone BV	–1	208
Current account in the name of Plasma Industries Belgium CVBA	–252	–
	1,153	**8,870**

On the outstanding current account balance, an interest rate of the average Euribor 1-month rate plus 3% is calculated. For these accounts receivable, no collaterals have been provided.

37. Cash and cash equivalents

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Cash	49	15
Bank balances	26,245	20,090
Deposits	4,487	4,484
	30,781	**24,589**

All cash and cash equivalents are at the company's free disposal. The deposits will all mature within one year.

38. Notes to the cash flow statement

'Investment in tangible fixed assets' only includes investments for which funds were sacrificed in 2017. The transfer of tangible fixed assets to Sanquin Holding BV is therefore not recognized in this cash flow statement from investment activities.

39. Equity *table 4*

Stichting Sanquin Bloedvoorziening maintains the equity capital required for guaranteeing continuity of the blood supply.

Proposed appropriation of result
The Executive Board has resolved to credit the result after taxes, amounting to € 10.8 million to the general reserve.

40. Special-purpose reserve

The special-purpose reserve concerns a Research Reserve of € 6.6 million and an International Collaboration Reserve of € 1.4 million.

The Research Reserve was originally created from the positive operating balance of the former research foundation, Stichting dr. Karl Landsteiner, which became part of Sanquin as a result of a merger. The reserve is intended for necessary research projects and expenses that cannot be paid for from regular operations.

Table 4

	Foundation capital	Special-purpose reserve	Other reserves	Result for the financial year	Total
(× € 1,000)	€	€	€	€	€
Balance as at 1 January 2017	1,957	7,976	296,100	14,202	320,235
Changes					
Result for the current financial year	–	–	–	10,816	10,816
Result appropriation	–	–	14,202	–14,202	–
Other changes in reserves	–	–	–	–	–
BALANCE AS AT 31-12-2017	**1,957**	**7,976**	**310,302**	**10,816**	**331,051**

In 2013, the International Collaboration Reserve (a special-purpose reserve) was created from funds received for such purpose. This reserve is intended to carry out projects to bolster blood bank organizations in developing countries.

41. Provisions

	31-12-2017	31-12-2016
(× € 1,000)	€	€
EMPLOYEE PROVISIONS	**2,394**	**2,256**

The employee provisions consist of obligations with regard to irregular hours allowances, anniversary bonuses and continued salary payment for employees who have a long-term illness.

The provisions for this amount to € 1.4 million (2016: € 1.2 million) for current (under one year) and € 1.0 million (2016: € 1.1 million) for long-term (over one year) liabilities.

42. Long-term liabilities *table 5*

The long-term loan extended by ABN AMRO Bank BV is further explained in the consolidated annual accounts in the notes to the balance sheet.

Table 5

	Balance as at 31 December 2017	Repayment obligations 2018	Remaining term > 1 jaar	Remaining term > 5 jaar
(× € 1,000)	€	€	€	€
Liabilities to credit institutions	17,143	2,857	11,427	2,859
BALANCE AS AT 31 DECEMBER	**17,143**	**2,857**	**11,427**	**2,859**

43. Current liabilities

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Repayment obligations	2,857	2,857
Trade creditors	9,409	18,814
Taxes and social security contributions	5,077	6,150
Pension contributions	–	1,094
Salaries and holiday allowance	14,354	15,886
Research funds received in advance	4,112	5,204
Other liabilities and accruals	10,616	6,464
	46,425	**56,469**

The fair value of the current liabilities approximates to the book value because of their short-term nature. The current liabilities will all mature within one year.

44. Average number of employees

An average of 1,423 employees were in service during 2017 based on a full-time employment relationship (2016: 1,658). None of them is working abroad (2016: 0).

As a result of the transfer of the activities of the Reagents and Diagnostics divisions to Sanquin Reagents BV and Sanquin Diagnostiek BV, respectively, the employees within these divisions have also been transferred (see also paragraph 1.4 Consolidation).

	2017	2016
Blood Bank Division	762	753
Diagnostics Division	–	222
Reagents Division	–	61
Research Division	264	230
Support staff	385	376
Tissues & Cells Business Unit	12	16
	1,423	**1,658**

45. Interest income and expenses

	2017	2016
(x € 1,000,-)	€	€
Interest income group companies	2,084	1,312
Interest income other	145	151
Interest expenses	–1,464	–719
	765	**744**

46. Result from participating interests

	31-12-2017	31-12-2016
(× € 1,000)	€	€
Sanquin Holding BV	12,619	6,019
Sanquin Plasma Products BV	–	–3,361
Euroclone BV	–	4,686
Xenikos BV	–	–310
	12,619	**7,034**

47. Related parties

The transactions between Stichting Sanquin Bloedvoorziening and its related parties, being Sanquin Holding BV, Sanquin Plasma Products BV, Sanquin Reagents BV, Sanquin Diagnostiek BV, Sanquin Innovatie BV, Euroclone BV, Sanquin Oy and Plasma Industries Belgium CVBA relate in particular the supply of blood products by Stichting Sanquin Bloedvoorziening to SPP and the rendering of administrative services (as a holding company) by Stichting Sanquin Bloedvoorziening to its related parties. The prices passed on in that respect are competitive.

Amsterdam, May 2018

Stichting Sanquin Bloedvoorziening

Executive Board
Mr. D.J. v.d. Berg (chair)
Prof. R.A.W. van Lier
Dr. P. de Geus
Dr. D.C. Thijssen-Timmer

Supervisory Board
Prof. F.C. Breedveld (chair)
Ms. K.T.V. Bergstein, MBA
M.J.W. Bontje
Prof. C.G. Figdor
Mr. A.K. Lahr
Ms. D. de Vreeze

OTHER INFORMATION

Result appropriation according to the Articles of Association

The Articles of Association of Stichting Sanquin Bloedvoorziening do not provide for the profit appropriation.

Dutch Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (the 'WNT')

Dutch Senior Officials in the Public and Semi-Public Sector (Standards for Remuneration) Act (the 'WNT') requires that the remuneration of senior officials of Sanquin must be accounted for. Only the members of Sanquin's Executive Board and Supervisory Board are considered senior officials within the definition of the WNT.

This section contains the remuneration data relating to current and former members of the Executive Board and those relating to the current members of the Supervisory Board and those of the employees that must be disclosed pursuant to the WNT.

Individual remuneration standard

The WNT came into force on 1 January 2013. The remuneration maximum applicable in 2013 was € 228,599 and in 2014 € 230,474. On 1 January 2015, the WNT-2 came into force, with the remuneration maximum being € 178,000 in 2015, € 179,000 in 2016 and € 181,000 in 2017.

As of 1 January 2014, the rules under the ministerial 2014 Care Scheme (Regeling Zorg 2014) applied. In 2014, Sanquin came under the highest category of this 2014 Care Scheme, which has a remuneration maximum of € 229,043. The 2014 Care Scheme was not adjusted for 2015, thus the same amounts continued to apply. As a result, the remuneration maximum set out in the WNT-2 did not apply to Sanquin in 2015.

On 1 January 2016 a new ministerial 2016 Care Scheme (Regeling Zorg 2016) came into force. Sanquin falls under Class V of the 2016 Care Scheme with a remuneration maximum of € 179,000. The Care Scheme 2016 also applied in 2017, on the basis that the amounts have been indexed for the year 2017. In 2017 the remuneration maximum for Class V was € 181,000.

A standard amount of 15% of the remuneration maximum for a senior official of the institution applies to the chair of the Supervisory Board; for Sanquin, the amount was € 26,850 in 2016 and € 27,150 in 2017. A standard amount of 10% of the remuneration maximum applies to the other members of the Supervisory Board; for Sanquin, the amount was € 17,900 in 2016 and € 18,100 in 2017.

Remuneration of the members of the Executive Board

	2017	2016
NAME: D.J. V.D. BERG Position: Chairman of the Executive Board		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Former senior officer	no	no
(Notional) employment relationship	yes	yes
Remuneration €	206,589	203,074
Taxable fixed and variable allowances	6,000	6,000
Provisions for remunerations payable in due course	11,219	10,933
Total remuneration as defined in the WNT	223,808	220,007
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: The employment contract and the remuneration agreed with Mr. Van den Berg had been concluded before the WNT-2/2016 Care Scheme came into effect. The remuneration is in line with the 2014 Care Scheme (which also applied for 2015) and comes under the transitional law of the WNT/2016 Care Scheme. The transitional law means that in the case of Mr. Van den Berg the remuneration will be respected in full for the year 2017.

	2017	2016
NAME: H.J.C. DE WIT Position: Vice-chair of the Executive Board		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Former senior officer	no	no
(Notional) employment relationship	yes	yes
Remuneration €	237,993	234,452
Taxable fixed and variable allowances	5,638	21,086
Provisions for remunerations payable in due course	5,637	10,978
Total remuneration as defined in the WNT	249,268	266,516
Individual remuneration standard	89,756	179,000

Justification for exceeding the remuneration standard: The employment contract and the remuneration agreed with Mr. De Wit had been concluded before the WNT came into effect (1 January 2013). The remuneration applicable at the time comes under the transitional law of WNT. The transitional law means that in the case of Mr. De Wit the remuneration will be respected for 4 years and that as from the financial year 2017 will be reduced to the relevant remuneration maximum under the WNT-1 of € 229,043. The individual remuneration standard for Mr. De Wit for 2017 under the transitional law, having regard to a retirement date of 30 June 2017, is € 127,517.

Mr. De Wit resigned from the position of vice chair of the Executive Board as at 1 August 2016 and took part of his accrued and unused days' holiday/leave until 1 July 2017. The remaining accrued and unused days' holiday/leave in 2017 were paid out to him in a final settlement. By virtue of the said remaining accrued and unused days' holiday/leave – a sum of € 121,751 from the total remuneration can be allocated to previous reporting years in which years the remuneration came under the period covered by the transitional law.

	2017	2016
NAME: R.A.W. VAN LIER Position: Vice-chair of the Executive Board		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Former senior officer	no	no
(Notional) employment relationship	yes	yes
Remuneration €	205,828	205,233
Taxable fixed and variable allowances	12,035	12,500
Provisions for remunerations payable in due course	11,180	10,902
Total remuneration as defined in the WNT	229,043	228,635
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: The employment contract and the remuneration agreed with Mr. Van Lier had been concluded before WNT came into effect (1 January 2013). The remuneration applicable at the time comes under the transitional law of WNT. The transitional law means that in the case of Mr. Van Lier the remuneration will be respected for 4 years and that as from the financial year 2017 will be reduced to the relevant remuneration maximum under the WNT-1 of € 229,043. Given that the remuneration of Mr. Van Lier had already been (voluntarily) reduced to a level under this remuneration maximum in the financial year 2016, a remuneration maximum of € 229,043 applies for the years 2017, 2018 and 2019.

	2017	2016
NAME: P. DE GEUS Position: Board Member		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Former senior officer	no	no
(Notional) employment relationship	yes	yes
Remuneration €	199,564	196,417
Taxable fixed and variable allowances	18,234	18,234
Provisions for remunerations payable in due course	11,245	10,953
Total remuneration as defined in the WNT	229,043	225,604
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: The employment contract and the remuneration agreed with Mr. De Geus had been concluded before the WNT-2/2016 Care Scheme came into effect. The remuneration is in line with the 2014 Care Scheme (which also applied for 2015) and comes under the transitional law of the WNT/2016 Care Scheme. The transitional law means in the case of Mr. De Geus for the year 2017 that the remuneration will be respected in full.

	2017	2016
NAME: D.C. THIJSSEN-TIMMER Position: Board Member		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Former senior officer	no	no
(Notional) employment relationship	yes	yes
Remuneration €	159,175	348
Taxable fixed and variable allowances	176	–
Provisions for remunerations payable in due course	11,070	29
Total remuneration as defined in the WNT	170,421	377
Individual remuneration standard	181,000	490
Justification for exceeding the remuneration standard	n/a	n/a

The remuneration of Ms Thijssen-Timmer is in line with the WNT-2 standard and the 2016/2017 Care Scheme.

Remuneration of the members of the Supervisory Board

	2017	2016
NAME: F.C. BREEDVELD Position: Chairman of the Supervisory Board		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Total remuneration as defined in the WNT	22,660	18,589
Individual remuneration standard	27,150	26,850
Justification for exceeding the remuneration standard	n/a	n/a

	2017	2016
NAME: K.T.V. BERGSTEIN Position: Supervisory Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Total remuneration as defined in the WNT *	–	–
Individual remuneration standard	18,100	17,900
Justification for exceeding the remuneration standard	n/a	n/a

*) In 2016 and 2017, Ms Bergstein waived her remuneration.

	2017	2016
NAME: C.G. FIGDOR Position: Supervisory Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Total remuneration as defined in the WNT *	–	–
Individual remuneration standard	18,100	17,900
Justification for exceeding the remuneration standard	n/a	n/a

*) In 2016 and 2017, Mr. Figdor waived his remuneration.

	2017	2016
NAME: A.K. LAHR Position: Supervisory Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Total remuneration as defined in the WNT	14,283	10,772
Individual remuneration standard	18,100	17,900
Justification for exceeding the remuneration standard	n/a	n/a

	2017	2016
NAME: M.J.W. BONTJE Position: Supervisory Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Total remuneration as defined in the WNT	14,367	11,040
Individual remuneration standard	18,100	17,900
Justification for exceeding the remuneration standard	n/a	n/a

	2017	2016
NAME: D. DE VREEZE Position: Supervisory Director		
Term of office	1 January t/m 31 December	13 October t/m 31 December
Total remuneration as defined in the WNT	14,283	2,354
Individual remuneration standard	18,100	3,923
Justification for exceeding the remuneration standard	n/a	n/a

Remuneration of others employee

	2017	2016
Position: Managing Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Remuneration €	201,695	176,739
Taxable fixed and variable allowances	–	–
Provisions for remunerations payable in due course	11,109	10,841
Total remuneration as defined in the WNT	212,804	187,580
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: in order to be able to attract and retain qualified board members, this employee is paid a salary that exceeds the WNT-2 remuneration standard and the 2016/2016 Care Scheme.

	2017	2016
Position: Managing Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Remuneration €	187,113	183,781
Taxable fixed and variable allowances	–	–
Provisions for remunerations payable in due course	11,174	10,893
Total remuneration as defined in the WNT	198,287	194,674
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: in order to be able to attract and retain qualified board members, this employee is paid a salary that exceeds the WNT-2 remuneration standard and the 2016/2017 Care Scheme.

	2017	2016
Position: Managing Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Remuneration €	184,450	172,172
Taxable fixed and variable allowances	–	–
Provisions for remunerations payable in due course	11,139	10,820
Total remuneration as defined in the WNT	195,589	182,992
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: in order to be able to attract and retain qualified board members, this employee is paid a salary that exceeds the WNT (2) remuneration standard.

	2017	2016
Position: Managing Director		
Term of office	1 January t/m 31 December	1 January t/m 31 December
Contract in FTE	1.0	1.0
Remuneration €	172,866	171,174
Taxable fixed and variable allowances	–	–
Provisions for remunerations payable in due course	11,082	10,817
Total remuneration as defined in the WNT	183,948	181,991
Individual remuneration standard	181,000	179,000

Justification for exceeding the remuneration standard: in order to be able to attract and retain qualified board members, this employee is paid a salary that exceeds the WNT-2 remuneration standard and the 2016/2017 Care Scheme.

	2017
Position: Managing Director	
Term of office	1 January t/m 31 December
Contract in FTE	1.0
Remuneration €	178,879
Taxable fixed and variable allowances	352
Provisions for remunerations payable in due course	11,088
Total remuneration as defined in the WNT	190,319
Individual remuneration standard	181,000

Justification for exceeding the remuneration standard: in order to be able to attract and retain qualified board members, this employee is paid a salary that exceeds the WNT-2 remuneration standard and the 2016/2017 Care Scheme.

Independent auditor's report

To: The executive board and supervisory board of Stichting Sanquin Bloedvoorziening

Report on the financial statements 2017

Our opinion
In our opinion, Stichting Sanquin Bloedvoorziening's financial statements give a true and fair view of the financial position of the Foundation and the Group as at 31 December 2017, and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code and the provisions of and pursuant to the Dutch Standards for Remuneration of Senior Officials in the Public and Semi-Public Sector Act (WNT).

What we have audited
We have audited the accompanying financial statements 2017 of Stichting Sanquin Bloedvoorziening, Amsterdam ('the Foundation'). The financial statements include the consolidated financial statements of Stichting Sanquin Bloedvoorziening and its subsidiaries (together: 'the Group') and the company financial statements.

The financial statements comprise:
- the consolidated and company balance sheet as at 31 December 2017;
- the consolidated and company profit and loss account for the year then ended; and
- the notes, comprising a summary of the accounting policies and other explanatory information.

The financial reporting framework that has been applied in the preparation of the financial statements is Part 9 of Book 2 of the Dutch Civil Code and the provisions of and pursuant to the WNT.

The basis for our opinion
We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing and the Audit protocol WNT 2017. Our responsibilities under those standards are further described in the section 'Our responsibilities for the audit of the financial statements' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence
We are independent of Stichting Sanquin Bloedvoorziening in accordance with the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO – Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA – Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct).

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:
- the directors' report;
- the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code;

Based on the procedures performed as set out below, we conclude that the other information:
- is consistent with the financial statements and does not contain material misstatements;
- contains the information that is required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of such procedures was substantially less than the scope of those performed in our audit of the financial statements.

The executive board is responsible for the preparation of the other information, including the directors' report and the other information in accordance with Part 9 of Book 2 of the Dutch Civil Code.

Responsibilities for the financial statements and the audit

Responsibilities of the executive board and the supervisory board for the financial statements
The executive board is responsible for:
- the preparation and fair presentation of the financial statements in accordance with Part 9 of Book 2 of the Dutch Civil Code and the provisions of and pursuant to the WNT; and for
- such internal control as the executive board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the executive board is responsible for assessing the foundation's ability to continue as a going concern. Based on the financial reporting framework mentioned, the executive board should prepare the financial statements using the going-concern basis of accounting unless the executive board either intends to liquidate the foundation or to cease operations, or has no realistic alternative but to do so. The executive board should disclose events and circumstances that may cast significant doubt on the foundation's ability to continue as a going concern in the financial statements.

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

Our responsibilities for the audit of the financial statements
Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion. Our audit opinion aims to provide reasonable assurance about whether the financial statements are free from material misstatement. Reasonable assurance is a high but not absolute level of assurance which makes it possible that we may not detect all misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Amsterdam, 18 May 2018
PricewaterhouseCoopers Accountants N.V.
Th.A.J.C. Snepvangers RA

Original signed by
Th.A.J.C. Snepvangers RA

Appendix to our auditor's report on the financial statements 2017 of Stichting Sanquin Bloedvoorziening

In addition to what is included in our auditor's report we have further set out in this appendix our responsibilities for the audit of the financial statements and explained what an audit involves.

The auditor's responsibilities for the audit of the financial statements

We have exercised professional judgement and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, the Audit protocol WNT 2017, ethical requirements and independence requirements. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the foundation's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the executive board.
- Concluding on the appropriateness of the executive board's use of the going concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the foundation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the foundation to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the company's consolidated financial statements we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Colophon

PUBLISHED BY
Stichting Sanquin Bloedvoorziening
Amsterdam, July 2018

Corporate Communications Department
Plesmanlaan 125
1066 CX Amsterdam
+ 31 (0)20 512 30 00

CONCEPT & DESIGN
das Studio (das-studio.nl)

TEXT
Elke Content, Amstelveen
Stichting Sanquin Bloedvoorziening

ENGLISH TRANSLATION
AVANTI Language Services bv

PHOTOGRAPHY
Martin Dijkstra,
with image of Michel Wielick

PRINTED BY
Print Consult

Sanquin