Annual Report 2015 Reststoffenunie

reststoffenunie

becomes on 1 July 2016

aqua minerals

Contents

Solid basis, new steps

At the end of 2015 we said goodbye to our managing director, Hay Koppers, who is off to enjoy his (pre) retirement. He can look back with pride on what he accomplished with Reststoffenunie: new applications were opened up, our participants have a clearer view of financial and product flows, earnings have grown very strongly, while operational expenses are lower than ever. In the name of the entire drinking water sector, I would like to thank Hay for his great effort and wish him the best of luck in the future.

The year 2015 was an important one on our path into the future. In our Business Plan 2015-2018 we define three growth models aimed at consolidating our position: extending our service provision to the waterboards, attracting new participants and initiating collaborative agreements abroad. I was positively surprised to see that we already succeeded in the first year, 2015, to take steps towards fulfilling all three of these ambitions. We began marketing struvite from the wastewater chain. We made a start in the effort to strengthen our position outside of the Netherlands. And – which perhaps pleases us the most – we welcomed a new participant: the Flemish drinking water company De Watergroep. Of course, this is only the beginning: now we have to meet the expectations of our new partners.

We close 2015 with a good feeling. Once again we witnessed the strength of the collective. With innovative research, collaboration – both within and outside the sector – and, most of all, collective tenacity we have achieved good results. The residuals are finding their way to increasingly high-value segments, which enhances their financial performance and environmental profile.

A new name

The environment in which we operate has changed enormously during the past two decades. Over the period, Reststoffenunie developed from a purchase organisation into a professional and internationally operating collective that adds value to watercycle residuals at every level. For and in the name of our participants. In this context, the name 'Reststoffenunie' and our style of communications needed to be updated. We are very pleased with our new name, '**AquaMinerals**', and our new, interactive website, which will be online in mid-2016.

Even though we've been active for more than 20 years, every day we learn more about the resources we work with and the world around us. The years ahead are packed with opportunities, ambitions and challenges to get down to work on. Our small, but enthusiastic and expert club of professionals greatly look forward to tackling the task with our partners. I'm very confident we'll succeed!

Olaf van der Kolk
Managing Director

We close 2015 with a good feeling and look ahead to the future.

Here's what we stand for

Reststoffenunie (starting 1 July 2016, AquaMinerals) was set up jointly in 1995 by all of the Dutch drinking water companies. Twenty years ago, the residuals resulting from drinking water production processes literally piled up: water company sites overflowed with them. Reststoffenunie was created to relieve the companies of this problem. Now, in 2016, we do a lot more than this: thanks to new and increasingly high-value destinations for the residuals, we ourselves create value from the residual streams. Sustainability *and* economic value. Two things that for a long time did not self-evidently go hand-in-hand.

Circular economy

And now we find ourselves at the centre of the circular economy. AquaMinerals aims to be a leading player in the development of functional markets for these secondary raw materials. Our participants can count on our openness, and on having a clear picture of and influence on both their financial and product streams. For our clients – at the other end of the chain – AquaMinerals is a competitive player in the provision of secondary raw materials and 'green' products.

The drinking water companies, our participants

With the new membership of De Watergroep, at the end of 2015 Reststoffenunie counted 11 participants. The number of shares held by each drinking water company varies according to the volume of drinking water the company produces.

Vitens N.V.	26,9 %
Brabant Water N.V.	18,8 %
Evides N.V.	11,9 %
De Watergroep	9,8 %
N.V. PWN Waterleidingbedrijf Noord-Holland	7,7 %
N.V. Waterleiding Maatschappij Limburg	5,9 %
Dunea N.V.	5,5 %
Stichting Waternet	5,0 %
N.V. Waterleidingbedrijf Groningen	3,4 %
Oasen N.V.	2,6 %
N.V. Waterleidingmaatschappij Drenthe	2,4 %

According to our earnings model, the participants see their efforts rewarded in the form of higher earnings. The efforts involve delivering qualitatively high-value (pure) residuals, in predictable volumes on the promised dates. In this way, we serve the individual financial interests within the collective. Moreover, each participant has its own mix of motives; while the financial result might be the priority for one company, disposing the residuals or making a contribution to sustainability might be the main motivations for others. Such variations are taken into account in the individual agreements.

Core values

In our daily activities *and* in our ambitions for the future, these are the core values driving our actions:

Joint pursuit of shared interest

Social entrepreneurship

Innovation

Reliability

Joint pursuit of shared interest

We can only be successful in the circular economy by collaborating as chainpartners. AquaMinerals connects participants, clients and service providers. Whenever we identify an opportunity, we launch joint projects and business cases and organise (new) chains. We form a powerful collective that shares knowledge, innovates and safeguards the future.

Together, we benefit from:

- **purchasing power** – thanks to the clustered volumes
- **sales power** – thanks to the multi-quality offering, supply assurance and single sales channel
- **innovation power** – thanks to the bundling of knowledge and resources

Innovation

We are constantly on the lookout for new applications. Innovation, research and collaboration with ambitious partners, both within and outside the chain, lead to surprising techniques and product/market combinations. Take, for example, the use of lime pellets in glass or even carpet backing, aquafer in pellet form, or a truck that dries its pellet load with the heat of its own engine. The possibilities are limitless.

Social entrepreneurship

Adding value to residuals and then marketing them successfully calls for entrepreneurship. We are proactive and motivated to achieve our objectives. We are not averse to risk, but will never compromise on our reliability, compliance and quality. We take our responsibility for humans and the environment very seriously in all of our deliberations.

Reliability

Reliability is in our genes. Naturally, in all of our activities we comply with the relevant legal and regulatory framework in all our activities, even though this is no simple matter, given that is a relatively new professional field and the rules are very complex. We keep a close eye on developments, participate in consultations in the name of our participants, and exert influence whenever we can. We work transparently; we do what we say and say what we do.

Retrospective 2015

A record year!

- Never before has Reststoffenunie disposed of so much material in a single year: 204,109 tons.
- For the first time, for all of the Netherlands, earnings from liquid aquafer and lime pellets exceeded disposal expenses.
- Never before, have so few transport kilometres been recorded: 2.7 kilometres per ton.
- The net costs per shareholder have never been so low: € 12.90 per ton.

Kerncijfers

	2015	2014	2013	2012
Results				
Earnings [1]	€ 4,989,100	€ 4,965,800	€ 4,256,300	€ 4,102,100
Non-shareholder turnover in %	2.9	2.7	2.4	3.3
Total disposal expenses [1]	€ 3,290,300	€ 3,322,700	€ 3,019,500	€ 3,182,700
Gross margin in % of turnover	34	33	29	22
Net operating result	€ 18,200	€ 6,600	€ 107,300	€ 70,300
Net shareholder expenses per ton [2]	€ 12.90	€ 14.41	€ 14.37	€ 14.57
Assets				
Balance sheet total	€ 1,822,700	€ 1,536,100	€ 1,622,600	€ 1,616,300
Shareholders' equity	€ 786,600	€ 692,700	€ 686,100	€ 578,900
Liquidity (quick ratio)	1.9	1.8	1.7	1.5
Residuals figures				
Supply in tons [3]	204,109	187,500	175,700	185,500
Recycle percentage [4]	81	81	87	79
Transport kilometres per residuals ton [5]	2.7	3.1	3.3	3.8
Personnel				
Number of employees FTE per 31.12.2015	7.2	7.1	7.1	5.7
Absenteeism in %	2	5	1	4
Average net sales per FTE	€ 173,600	€ 185,000	€ 163,500	€ 171,900

1 negative turnover allocated after disposal expenses
2 incl. net operating result
3 exclusive of plastic and AC pipes
4 in accordance with LAP 2 revised definition
5 calculated from Dutch water company production site

RU in other sectors and countries

In 2015 Reststoffenunie received many new requests for its services, from both within and outside the Netherlands. But our relatively small organisation can hardly satisfy this demand. That is why we have developed a cooperative model which is quite easy to implement in other countries and sectors, without placing an excessive burden on our organisation or exposing us to commercial risks. In December Reststoffenunie sold the rights to this model to KWR Water, which will be responsible for its elaboration.

ICT and automation

Over the last few years Reststoffenunie's development has outpaced that of our ICT infrastructure. In response, two years ago, we embarked on an extensive project aimed at making our data flows more efficient, while maintaining their rigour. In 2014, tools were developed for invoicing and management information. Starting in 2016, our participants will be able to login to access their residuals' disposal information. We also developed a transport app, which makes transport documents superfluous and the information exchange faster and more accurate.

Collaboration with waterboards

Discussions continued in 2015 between Reststoffenunie and the waterboards about collaborating on the valorisation and commercialisation of residual streams from the (waste) watercycle. Our main interlocutor was the Energy & Raw Materials Factory (EFGF), a partnership within which the waterboards have bundled a great deal of knowledge and expertise. In 2015, we started working with the EFGF on making an extensive inventory of the quality, costs and applications of a number of smaller streams from WWTPs in the Netherlands. The goal is to produce a concrete proposal in 2016 on how these streams can be combined into a collective model. On a number of occasions in 2015, Reststoffenunie also advised the waterboards on the legal status of residual streams; REACH registration and the 'end-of-waste material' status were recurring subjects.

New Flemish participants

Together with the Flemish drinking water companies, De Watergroep and PIDPA, we studied their interest in becoming participants in Reststoffenunie. We examined a variety of angles – for example, innovation, legal and regulatory frameworks and costs – to get a clear idea of the possible advantages and disadvantages involved. The conclusions were positive, with the result that, starting 1 January 2016, De Watergroep became part of our collective. We are still in discussions with PIDPA.

Assessment and development process

Reststoffenunie's personnel policy has been steadily professionalised over the last few years. We joined the Collective Agreement of the Water Company Employer's Association (WWb) in 2012, and most of the implementation provisions are carried out by the HRM department of KWR Water. In 2015 we successfully concluded an initiative to modernise our assessment and development process. Guided by our company objectives, we stimulate our staff members to develop their talents, and our assessment process is objective and transparent.

Management change

In the spring of 2014, Reststoffenunie's managing director, Hay Koppers, announced that he wished to take (early) retirement as of 1 January 2016. The internal candidate Olaf van der Kolk – active since 2011 as commercial operations manager – met the requirements for the position of managing director. The Supervisory Board proposed that he be Hay Kopper's successor, a proposal that was then unanimously approved by the Shareholders' General Meeting.

Risk management

Since 2011 our risk management has taken on structural form. At least once a year we discuss with the Supervisory Board which current risks are, or might become, relevant. If possible and necessary, we then formulate and take mitigating measures to address any risks. This policy has to date proved to be sufficient: none of the anticipated risks has led to significant problems in practice.

IWA/KWR Resource Recovery Award

In August 2015, Reststoffenunie was honoured, in the name of our participants and together with Desso and Ardagh, to receive the prestigious IWA/KWR Resource Recovery Award. The prize was awarded because of the high-quality valorisation of lime pellets in attractive and durable applications – such as the replacement of sand seeding by lime seeding (see pages 12-13) and the innovative method of drying pellets.

Treasury

The treasury statute of 2012 was revised and supplemented in 2014 with a suitable distribution test arising from the Flex-B.V. Act. Accordingly, the management of the company must assess whether the B.V., following a distribution made to the shareholders, is able to continue paying its (immediately) payable liabilities. This revision came into force as of 1 April 2015. Moreover, in 2015 all procedures were followed and operations conducted in compliance with the established requirements and planning.

Sustainable goals *and* results

AquaMinerals works on the world of tomorrow and on the circular economy. By using drinking water residuals we preserve natural resources and reduce the need for primary raw materials. The result: significant environmental *and* climate benefits.

These are our objectives:

1. More and more high-value and circular applications for residuals.
2. Reduction of the drinking water sector's ecological and climate footprint.
3. More efficient and sustainable transport.

In the years ahead we will be formulating these objectives 'SMARTLY'.

Infographic Erik Zeegers

1 More and more high-value and circular applications

In the best cases, we find applications in which the residuals replace high-value primary raw materials: this is where the greatest sustainability benefit lies. We have Lansink's ladder in mind: at least 99.9% of the residuals we receive find useful applications and only 0.1% end up as landfill. A little less than one-fifth is used as construction material and the remainder is recycled at a high or higher level of quality.

Less goes to infrastructural works

By developing more high-value applications, we don't have to dispose of as many residuals in infrastructural works, a category that comprises mainly infrastructural construction work, such as noise barriers, but also golf courses, for instance. We managed to do this in the case of liquid aquafer, iron-lime sludge and a large portion of river sediment. In 2013, 43% of iron-lime sludge and 100% of river sediment still went to infrastructural works, but now the iron-lime sludge is used in agriculture and most of the river sediment as a raw material in brick production. However, there are only a few high-value applications available for aluminium sludge, filter material and carbon sludge, for instance. We are constantly seeking new opportunities for these residuals as well.

Pure lime

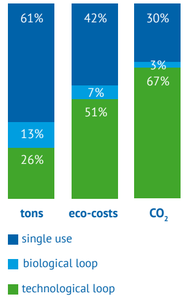
The 100% calcite lime pellet we developed with our partners over the last few years resulted, in ground form, in a pure lime that is suitable for a variety of high-value applications. In 2015, successful tests were carried out for the reuse of ground calcite pellets as a seeding material in water softening (see pages 12-13); a milestone for the sector, since the residual is not recycled but reused in its original application: yet a rung higher on Lansink's ladder.

Lansink's Ladder – waste hierarchy

Cradle to Cradle®

Cradle to Cradle®, as the name implies, refers to keeping raw materials within a closed loop. We embrace this philosophy and avoid, whenever possible, having residuals being dumped after single usage. About 40% of the residuals are directed to applications in which the material flows back into the resource loop. Lime pellets are thus incorporated into the biological loop in the form of consumer-use lime, and lime pellets for the glass industry ultimately end up in recycled glass (technological loop).

Share of circular applications



Cradle to Cradle® applications don't always (immediately) lead to the greatest environmental benefit. For example, a lot of energy is required to dry and grind calcite pellets to make seeding material or high-value ground lime; in any event, more than is required in the large-scale industrial production of ground lime from limestone. Whenever we expect to reap a sustainability future benefit, we are willing to accept such drawbacks.

The EPEA Cradle to Cradle® institute (Braungart) has designated the lime pellets as 'recycled process input', so that they can be used as raw materials for companies seeking a Cradle to Cradle Certified™ label for their product. A good example is the incorporation of drinking water lime into Desso EcoBase® carpet backing.

2 Smaller drinking water sector footprint

The use of residuals means primary raw materials are preserved. This produces demonstrable environmental and climate benefits. Using life-cycle analysis (LCA) together with sales and transport data, one can calculate the impact of the residuals chain, from the water production process up to and including application by the client.

Lower CO_2 emissions

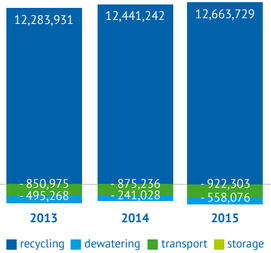
The benefits of replacing common raw materials by residuals are many times greater than the impact associated with the residuals' transport, storage and dewatering. On balance, we contribute to a reduction of the drinking water sector's CO_2 footprint. In 2015, the use of residuals lowered emissions by 10.3 million kg CO_2 equivalent, which is about 5% of the CO_2 emissions from Dutch water production processes. By far the largest positive contribution comes from recycling aquafer. The use of this residual in the desulphurisation of digesters or for phosphorus binding in wastewater treatment plants dispenses with the use of high environmental-impact products such as ferric chloride. The environmental benefit of replacing primary lime by lime pellets is smaller, since the environmental impact of quarry lime is relatively low.

Environmental benefit

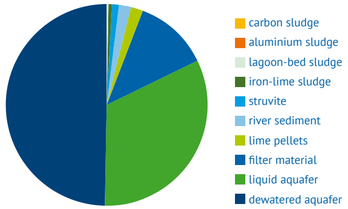
The environmental benefit is calculated in eco-costs. These are the costs associated with preventing the environmental burden of acidification, particulate matter, climate change, etc. It is a broad indicator of environmental impact.

In 2015 over 10 million kg CO_2 emissions were avoided

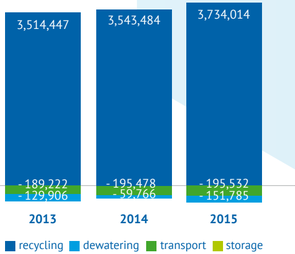
Residuals climate benefits (avoided CO_2 emissions)
Kg CO_2 eq.



Share in climate benefit



Residuals environmental benefits (avoided eco-costs)
€



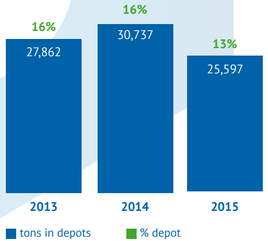
3 Efficient and sustainable transport

The environmental factor we can influence the most is the transport of the materials. This receives a lot of attention in our operational management. Through good planning and matching of supply and demand, we sell as many of the residuals as possible locally. For this reason we store less of them in depots and our transport kilometres per ton of residuals has been falling for years.

Less via depots

By transporting the residuals as much as possible directly from the drinking water company to the client, and not via a depot, less transport is needed. This presents a constant logistical puzzle for our planner. After all, we handle 6,000 loads a year! Working in response to demand also puts a lot of pressure on the drinking water company: the residual must be of the right quality and be available exactly on the agreed date. The percentage of (total) residuals that were delivered via depots in 2015 dropped to 13% from 16% in 2014. This won't drop much further, because some latitude is needed to balance the supply and demand of liquid aquafer and to mix it to the client's specifications in the depots.

Use of interim storage
tons



High load rate

We also save on transport by loading more onto the trucks and not having them travel partly-full. The average load in 2015 was 34 tons, up from 32 tons in 2013. This represents the trucks' maximum load.

It's not either/or

Sustainable applications are also financially attractive applications: we don't need to choose between euros and the environment.

Clean truck fleet

The bulk of the transport, 88 percent, is done by Euro V trucks or better. This emission standard is a requirement in our new contracts with transporters.

Fewer transport kilometres per ton

We sell the residuals locally whenever possible. Materials for high-value applications are however often transported over longer distances, because the client sets specific requirements for them, which the water company in the closest vicinity can't meet. The environmental benefit resulting from avoiding the use of primary raw materials is much larger than the environmental burden of the transport. In the case of dewatered aquafer, the environmental benefit is only offset after a good 5,000 kilometres has been travelled.

Lime pellets

Bigger volume, bigger earnings

The volume of lime pellets rose in 2015 to 73,000 tons, after having stabilised for a number of years at around 67,000 tons. This rise is almost entirely due to new softening capacity and a more intensive softening process than in previous years. Earnings grew to € 596,000, an increase of 16% over 2014. Expenses were slightly lower than in 2014.

New: lime pellets are good for the soil

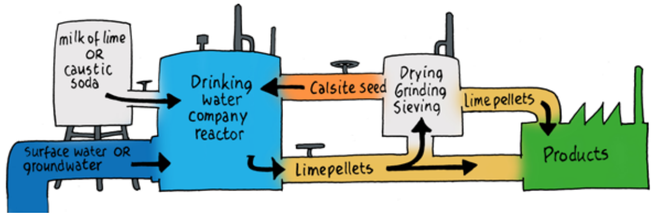
In 2015, 1,900 tons of lime pellets from historically accumulated stocks was sold for use as a lime fertiliser in agriculture. Research shows that, while it is true that pellets work slowly, their pH effect is ultimately comparable to that of traditional lime fertilisers. What's more, due to pellets' gradual effect, the soil experiences much fewer pH peaks and lows compared to when traditional substances are used. And that is better for soil life. Because of the robustness of the pellets, they can be applied very precisely, and can be placed exactly where the roots do their work.

Broken pellets for drinking water remineralisation

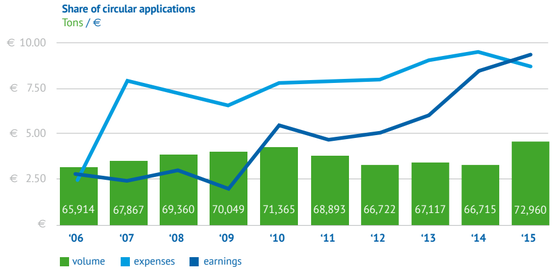
When raw water is treated using reverse osmosis, the end-product is too poor in minerals to be pumped into the distribution network. Without these minerals the water is too corrosive for the network. But from a health perspective, the drinking water also needs to contain minerals like calcium and magnesium. The calcium is introduced into the water by having it flow over a lime filter. Evides Waterbedrijf has carried out pilot tests to remineralise the water at low temperatures using broken and unbroken, sand-free lime pellets. The results have been positive, and Evides will continue the project in 2016.

From sand seeding to lime seeding: pure and sustainable

More and more Dutch water companies are using calcite instead of sand as their seeding material in softening reactors. The pure lime that results from this process is a valuable residual. Indeed, a joint project with KWR and five drinking water companies, has shown that softening using a *seed produced by the plant's own lime pellets* is easily feasible – from the quality, hygienic and cost perspectives. One production site has completely switched over to this 'Dutch' lime; other sites will probably do the same once the product is commercially available. The companies that have partially switched over use lime seed produced from quarry lime. At the end of 2015, 31% of the lime pellets had a lime seed, compared to 16% at the end of 2014. A significant proportion of these pellets find their way to the carpet tile industry. A number of research projects are underway studying possible applications in other economic sectors, such as glass, plastics and composites.



Development expenses and earnings: in 2015 earnings exceeded expenses!



A selection of the many lime-pellet applications

- backing material for carpet tiles
- lime fertiliser for agri-culture and horticulture
- lime fertiliser for consumer gardens
- sand substitute in concrete
- animal stable hygiene
- aquaria and terraria
- composites
- crawl-space insulation
- (waste)water neutralisation
- syngas production
- glass production

Aquafer

High-value pellets from sludge

That aquafer has outstanding chemical binding properties for phosphorus, sulphur and arsenic is well known. But its effectiveness in removing these compounds from gas or water can be improved even more by applying it in pellet form. For this reason, Reststoffenunie, together with partners KWR, Evides, Dunea, Brabant Water, Waternet, Biogasplus and AGRAVIS Raiffeisen AG, has launched research projects aimed at producing pellets to remove phosphorus and arsenic from water, and sulphur from gas. The results are very promising and the initial transactions are a reality.

Coagulant from sludge

Iron sludge consists primarily of ferric (hydr) oxide. By treating it with sulphuric acid, also a by-product, one can make iron sulphate, which has a number of new applications in the current sales channels.

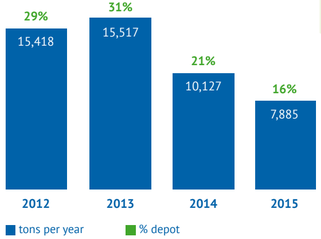
We have used this process with the chemicals company Feralco to develop an iron sulphate coagulant. The product is used in the manure processing sector, and we're working with Feralco on identifying other possible applications for it.

Balancing supply & demand

The challenge of efficiently matching supply and demand is one that has to be confronted every day with aquafer. If there's more supply than demand (or vice versa) then we make use of temporary storage in depots. The depots not only permit us to deal with supply-demand imbalances, but also to bring the product to the client's specifications. But deliveries via depots involve additional expenses and energy consumption. Over the last few years, Reststoffenunie and its participants have made a particular effort to improve the residuals' quality onsite and to better match supply and demand. The result: the number of tons delivered via depots has almost been halved!

Help from Flanders: In 2015, the demand for dewatered aquafer periodically exceeded supply by a wide margin. With the help of the Belgian company, SEDE BENELUX, streams from Flanders were directed to our clients, thus safeguarding the continuity of sales of our Dutch participants.

Volumes of liquid aquafer delivered via depots
tons per year



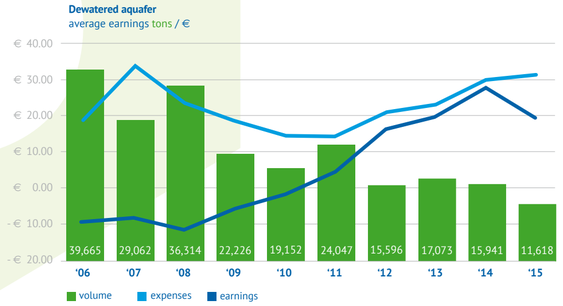
Quality and dry matter content

The dry matter content of liquid aquafer is an essential criterion in its commercialisation. The client has to be assured that this content is stable – at 7.5%, as a rule. This is something we agree on with the participants. If the dry matter content is sufficient, then we can immediately ship the aquafer; if not, it has to be further dewatered in depots.

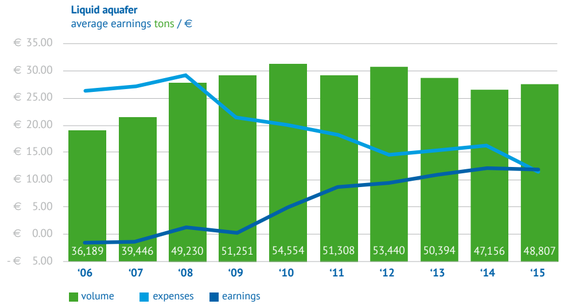
Iron is the most common chemical element on earth. It makes up most of the earth's core.

A selection of aquafer applications

- sulphur-binding agent in biogas reactors, by adding sludge to biomass
- sulphur removal from biogas, by using iron pellets as filter in biogas reactors
- phosphorus removal from (surface) water
- infrastructural works, e.g., golf courses and noise barriers
- colouring agent and filler in brick production



Development expenses and earnings: dewatered aquafer
Decreasing volume, an earnings drop occurred due to a low-quality consignment.



Development expenses and earnings: liquid aquafer
Slightly decreased volumes due to better concentration, lower expenses, higher earnings: in 2015, in the black for the first time!

Other residuals: sludge

We consider other sludge:

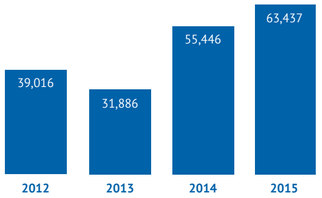
- carbon sludge
- (iron-)lime sludge
- lagoon-bed sediment
- aluminium sludge
- river sediment

Facts and figures:

- Other sludge streams comprise 27% of total disposals, and the percentage is rising.
- These streams together represent a negative value of - € 336,000 (in contrast to a positive value of € 1,429,000 for the other streams combined).
- The expenses incurred 'within the gates' for the disposal of these sludge streams amount to 58% of the total for all residuals 'within the gate'. These streams' associated decomposition and dewatering expenses are therefore relatively high.

Volume is increasing

Cumulative 'other residuals'

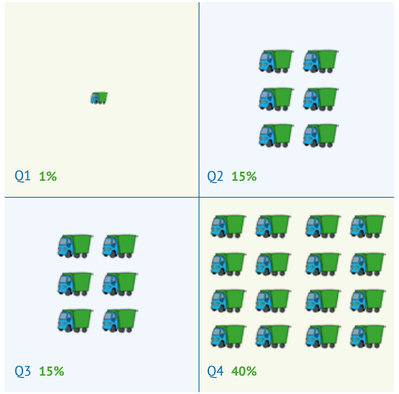


From negative to positive

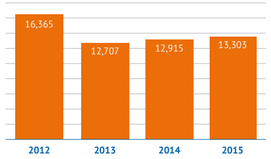
While in the past 'other residuals' usually were of negative value, research and quality assurance have in a number of cases, such as river sediment and lime sludge, made them of positive value; river sediment is directed to the brick industry and pure streams of lime sludge are used in agriculture.

Disposal: mostly in batches and at year's end

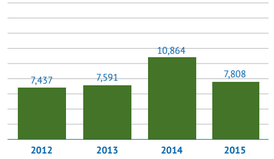
The streams are disposed of in batches and mostly at the end of the year. This pattern is repeated every year, and we are able to anticipate it well.



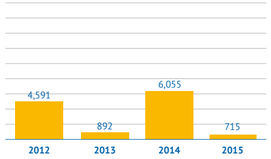
Aluminium sludge
tons per year



Iron-/lime sludge
tons per year



Carbon sludge
tons per year



Other residuals: granulates

- Filter sand and gravel
- Struvite

New possibilities for pulverised carbon

Pulverised carbon is used for the discolouration of drinking water. Humic and fulvic acids in particular bind to the pulverised carbon and can therefore be removed from the water. As a residual, it is then still primarily used in infrastructural works, but research is underway into various applications. For example, the use of pulverised carbon as compost (structural material, biostimulant), or in wastewater treatment (substance removal, better sludge dewatering), and for immobilisation purposes (fixing compounds to prevent leaching).

Struvite: a new stream

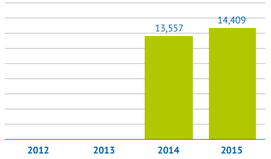
Struvite is the first non-drinking-water stream that Reststoffenunie has brought to market. The struvite is a magnesium ammonium phosphate mineral, which is extracted from municipal wastewater by Waternet in Amsterdam. The recovery of phosphorus from wastewater is high on the political and societal agenda. Phosphorus is after all of key importance to global food supply, while easily extractable sources are becoming increasingly rare. Reststoffenunie sold the struvite in 2015 to an artificial fertiliser producer.

Filter sand and gravel

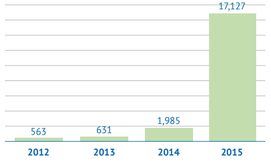
In this category of residual, we notice that the disposal is in batches, and in small volumes per location. The applications of filter sand and gravel include infrastructural works, as drainage and tree sand, but also as a phosphorus-binding agent and nutrient filter.

Struvite also occurs in human 'plumbing'. We know it as kidney stones.

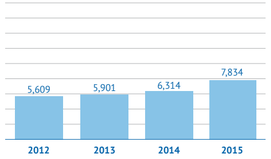
River sediment
tons per year



Lagoon-bed sludge
tons per year



Filter sand and gravel
tons per year



Prospects & expectations

Profile, communications and position

In 2015 we drew up a communications plan which we'll be implementing in 2016. The name 'Reststoffenunie' no longer captures the range of our activities nor does it suit the increasingly international field we play on. Reststoffenunie will continue under the AquaMinerals name. Moreover we're giving our communications a new, up-to-date look. AquaMinerals will be communicating more digitally – including an emailed newsletter and login possibilities to enable participants to extract information from our database. And during the course of 2016 we will be launching our new, up-to-date, interactive website.

We're working on strengthening our position through the three growth scenarios of the Business Plan 2015-2018:

- extending our service provision to the waterboards;
- expanding with (Flemish) participants;
- strengthening our position abroad.

Innovation

The importance of innovation grows every year. In 2016, we will continue to direct a lot of attention to the further development of granular aquafer. We will continue to optimise the specifications in close consultation with the market. Besides its use as a sulphur- and phosphorous-binding agent, in 2016 we'll be studying its potential for arsenic binding.
The lime pellets with calcite nuclei offer numerous new application possibilities.

In 2016, we'll be delivering them to new destinations that have hitherto not been open because of the pellets' sand content. In 2015, we began supplying lime pellets for agricultural and horticultural applications. This volume will expand in 2016. Through further research into the specific effects of pellets in the soil, we anticipate that turnover will increase in this market as will the development of higher-value applications.

Financial

The number of tons will increase in the years ahead, primarily because of the membership of new participants and the extension of our services to the waterboards. Expenses will be increasing less rapidly, which will lead to a drop in the cost to participants, expressed in euros per ton.

The innovations we're currently working on will lead to new higher-value sales of the by-products. The current number of bulk applications will therefore decrease. The higher value of these streams means a growing source of income for both AquaMinerals and its participants.

The strengthening of our position abroad will provide us with a stable income source and, if very successful, could even amount to a significant contribution to the AquaMinerals organisation.

Knowledge platform

AquaMinerals will set up a platform to exchange knowledge and identify opportunities with all our participants. Whenever we jointly agree on a promising opportunity, we will launch concrete projects to capitalise on it.

Sustainability

The environmental benefits can increase even more through the higher-value application of the residuals and the replacement of primary raw materials. Together with the water companies, we're studying how the water production sites can be improved, for instance by: producing fewer residuals, improving the quality of residuals with an eye to high-value applications, and further concentrating the sludge to save on transport. With regard to clean and efficient transport, we're also working on having fewer schedule deviations and a 100% Euro V truck fleet.

Expansion of our market

As long as we're in a position to produce good quality products, which are comparable to the primary raw materials, the demand for watercycle residual streams will stay stable or even strengthen.
It is expected that in the years ahead raw material prices will remain under pressure, so that we will continue searching for niche applications in which price is a less important consideration.

By steadily concentrating on the valorisation of the by-products, we ensure that their value by volume-unit will increase. This means that we're able to make deliveries over longer distances because the residuals' value exceeds the expenses and environmental impact associated with their transport. As a result, we can increasingly consider the north-western European market to be part of our sales area.

Drinking water company roadmap

Together with the water companies, we're developing a 'roadmap' incorporating our joint ambitions, technological changes and anticipated market developments. On the basis of this roadmap, we elaborate – concrete and whenever possible tailored – plans with individual water companies to realise these ambitions. The point on the horizon is the same, but the route to it can vary from company to company.

ICT and automation

Our information flows are being further automated. This will soon allow participants to login and consult current residuals disposal information. If this proves satisfactory, we'll gradually extend these possibilities. Our transport app will be implemented for more and more routes, which will reduce paper use and accelerate information exchange. We'll then also provide information access to clients and, eventually, make it possible for participants and clients to fill in the database themselves, for example, with supply and demand numbers.

Supervisory Board

The Supervisory Board oversees the policy of management and provides it with advice. Its supervision mostly concerns financial performance and developments, regulatory compliance and risk management.

Chairperson Roelof Kruize looks back and ahead

'For me, De Watergroup's membership was the milestone of 2015. Interest from abroad has been expressed for a long time, but now we have clear confirmation that RU is a valued partner, not only in the Netherlands, but outside our borders as well. To find increasingly higher-value applications, it's important to attract new knowledge, skills and expertise. This requires a certain expanse and, in that sense, the Netherlands is too small.

The IWA is also looking with interest at the way we work. I can even imagine that what we do is unique in the world. This is all related to our sense of solidarity: developing things together, sharing innovations instead of protecting them behind patents. The drinking water companies are very conscious of their public role. We're not in competition with each other and realise that we can accomplish more together. A nice example of Dutch 'poldering' and our centuries-old commercial spirit.

Enormous opportunities

We would like to see our collaboration extended to the waterboards. This sector is technically strong and has long viewed wastewater as a source of valuable resources; indeed, it's the reason it set up the Resource Factory. What RU can contribute is its strong commercial talent. Thus the sale of struvite is lucrative, but also incredibly important, given that phosphorus is becoming increasingly scarce. And without phosphorus there's no food production. Sustainable solutions are therefore also becoming more and more attractive economically. This presents enormous opportunities. The circular economy is really around the corner. After all, we simply cannot go on using products once and then throwing them away. This makes initiatives such as RU more and more valuable.

As members of the Supervisory Board, we watch the steps being taken with satisfaction. Hay Koppers has left behind a healthy and attractive company. And we are happy that he is continuing to apply his knowledge and experience for us in the German market. On 1 January this year, we granted in full confidence the leadership of Reststoffenunie – henceforth AquaMinerals – to Olaf van der Kolk. We can already confirm that we made the right choice!'

Roelof Kruize

portfolio: strategy and policy, managerial matters

Composition

Per 31 December 2015, the SB's composition was as follows:

- Mr R. Kruize (1956), Chairperson, Managing Director, Waternet Foundation
- Mr P. Fransman (1962), Vice-Chairperson, CFO, Evides N.V.
- Ms R. Bergkamp (1959), Director, Vewin
- Mr K. Hoogsteen (1950), Director, N.V. Waterleidingmaatschappij Drenthe
- Mr S. Corvers (1963), Director, Corvers Holding B.V.

(Re)appointment schedule

At the end of 2015, Mr P. Fransman was reappointed upon recommendation.

	appointed	reappointed	resignation
R. Kruize	31 December 2014	(possible) 31 December 2017	
R. Bergkamp	31 December 2013	(possible) 31 December 2016	
K. Hoogsteen	1 July 2010	1 July 2013	1 July 2016
S. Corvers	1 July 2010	1 July 2013	1 July 2016
P. Fransman	31 December 2012	31 December 2015	31 December 2018

Karst Hoogsteen

'2015 was characterised by the steadily increasing importance of optimally processing the sector's residuals. Reststoffenunie's course reassessment and internationalisation dovetail with this. The repositioning of residuals in the market, together with a new name, is a must.'

portfolio: governance, personnel & organisation

Stephan Corvers

'The interface between the water companies' semi-public interests and the tough, commercial "outside world" has a dynamic all of its own. From my perspective as a supervisor, I can say that RU has been unique, even trend-setting, in this regard. It is a professional challenge to embed this pioneering mentality in its legally responsible dealings.'

portfolio: client, market, contracts, regulations

Peter Fransman

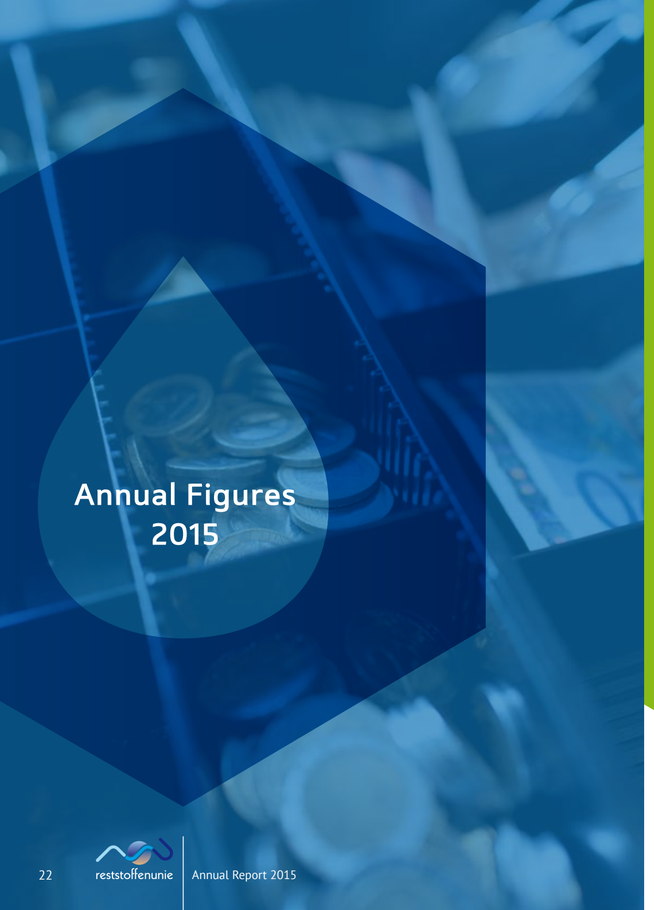
'Again in 2015, the SB was able to assist the organisation take a number of key steps. For example, lots of attention was paid to strengthening financial management and further improving mutual cooperation. We also closely followed the international activities and the membership of De Watergroep.'

portfolio: finance, risk management, administrative organisation and internal control

Renée Bergkamp

'The fact that Reststoffenunie reduces costs for the drinking water companies is a benefit, not only for the consumer but also for the sector's image in terms of sustainability and circularity. This helps Vewin in lobbying The Hague and Brussels and creates a nice win-win situation.'

portfolio: public authorities, communications and market concepts



Annual Figures 2015

Financial statement explanatory notes

Principles of valuation

General
The company's most important activity is relieving the water companies of the residuals they produce in their water production processes. The company has prepared its financial statements in accordance with the legal provisions of Title 9, Book 2 of the Dutch Civil Code.

Comparative figures
Comparative figures are only restated for comparative purposes.

Intangible fixed assets
The intangible fixed assets are valued at acquisition price minus depreciation. The depreciation period is five years. A legal reserve equivalent to the capitalised costs is included.

Tangible fixed assets
The tangible fixed assets are valued at acquisition prices and depreciated straight-line on the basis of the expected operating life of the asset concerned. The rate of depreciation applied is 20%.

Cash and cash equivalents
The cash and cash equivalents are valued at nominal value. Unless otherwise indicated, these are freely available.

Other assets and liabilities
These are valued at nominal value.

Receivables
Receivables are stated initially at real value, including transaction expenses, and subsequently stated at the amortised cost price, less provisions for uncollectable debts. The initially stated real value and the amortised cost price are equal to the nominal value, unless there is a question, in the initially stated value, of transaction expenses, discounts, or premiums, and other disparities between the real value and the nominal value.

Principles for the determination of results

Earnings, expenses and interest are attributed to the period with which they are associated. The earnings concern the passed-on disposal expenses plus the realised earnings (positive and negative) from clients and consulting services provided.
The direct disposal expenses concern outlays for extraction, transport, storage and analysis.

Pension expenses
The company has a defined pension contribution plan. Payable pension contributions are incorporated into the profit and loss account in the year with which they are associated.

Corporate tax
Beginning 1 January 2011, the tax obligation of Reststoffenunie was terminated in accordance with article 2, paragraph 7 of the Corporate Income Tax Act, 1969.

Balance Sheet per 31 December 2015

(after profit appropriation following recommendation)

	31-Dec-2015	31-Dec-2014	
	€	€	
ASSETS			
Fixed assets			
Intangible fixed assets	50,000	-	*Research expenses related to activities abroad*
Tangible fixed assets	9,365	3,382	
Current assets			
Receivables and accrued income	1,073,961	1,065,852	
Cash and cash equivalents	689,348	466,860	
	1,822,674	1,536,094	*2014 balance is low; 2015 balance is comparable to that of 2013*
LIABILITIES			
Shareholders' equity			
Issued and paid-up capital	475,202	449,222	*Increased due to De Watergroep share issue*
Share discount	11,923-	11,923-	
Share premium	35,055	6,148	
Legal reserve	50,000	-	*Legally required reserve for activation of intangible assets*
Other reserves	238,271	249,240	
	786,605	692,687	
Current liabilities			
Current liabilities and accrued liabilities	1,036,069	843,407	*Increase due to debt to service providers*
	1,822,674	1,536,094	

Profit and Loss Account for 2015

	31-Dec-2015	31-Dec-2014	
	€	€	
Earnings			
Turnover residuals	4,982,358	4,925,397	*Increase due to slight growth in sales*
Consulting	6,745	40,362	
	4,989,103	4,965,759	
Shareholders' annual contribution	897,100	883,865	
Other earnings	69,342	20,000-	*Increase due to sale of lime pellets stored in 2011-2013*
Total earnings	5.955,545	5,829,624	
Operating expenses			
Direct disposal expenses	2,791,381	2,935,967	*Decreased disposal expenses due to more efficient supply-chain organisation and lower unit rate*
Acceptance expenses	498,875	386,742	*Increase due to growth in supply of negative-value residuals*
Earnings distributed to shareholders	1,419,655	1,398,353	
Pre-netted earnings for shareholders	35,200	17,400-	
	4,745,111	4,703,662	
Gross turnover result	1,210,434	1,125,962	
Operating expenses			
Personnel	692,706	676,223	
Depreciation	3,589	7,298	
Cost of sales and PR	93,341	44,843	*In 2014, the provision for bad debts (€ 45,000) was released*
Research and consulting costs	219,315	251,867	*The research costs for activities abroad were activated*
Premises	40,140	38,936	
Supervisory Board	7,400	7,250	
Other operating expenses	139,803	98,652	*One-off automation costs following move and incorporation into KWR's ICT*
	1,196,294	1,125,069	
Total expenses	5,941,405	5,828,731	
Operating result before interest	14,140	893	
Interest income	4,097	5,663	*Decrease in capital market interest rates*
Result	18,237	6,556	

Audit Report

To the General Meeting of Shareholders of Reststoffenunie Waterleidingbedrijven B.V.

The accompanying summary financial statements, comprising the summary balance sheet per 31 December 2015, the summary profit and loss account for 2015, with associated explanatory notes, are derived from the audited financial statements of Reststoffenunie Waterleidingen B.V.
We expressed an unqualified auditor's opinion on these financial statements in our report dated 3 June 2016. Those financial statements and this summary of them, do not reflect any events that have occurred since our report dated 3 June 2016.

The summary financial statements do not contain all the explanatory notes as required under the provisions of Title 9, Book 2 of the Dutch Civil Code.

An inspection of the summary financial statements can therefore not take the place of an inspection of the audited financial statements of Reststoffenunie Waterleidingbedrijven B.V.

Responsibility of management

Management is responsible for the preparation of a summary of the audited financial statements in conformity with the principles, as describe in the explanatory notes in the financial statements.

Responsibility of the auditor

Our responsibility is to express an opinion on the summary financial statements on the basis of our procedures, which were conducted in accordance with Dutch Law, including the Dutch Standard on Auditing 810 'Engagements to report on summary financial statements'.

Opinion

In our opinion, the summary financial statements are consistent, in all material aspects, with the audited financial statements of Reststoffenunie Waterleidingbedrijven B.V., and in accordance with the principles, as described in the explanatory notes to the financial statements.

Lelystad, 3 June 2016

MTH accountants & adviseurs B.V.

S.A. Frenay RA

aqua minerals

Colophon

Publication
AquaMinerals B.V.
Groningenhaven 7
P.O. Box 1072
3430 BB Nieuwegein
Tel: +31 30 – 60 69 721

website: www.aquaminerals.com
e-mail: info@aquaminerals.com

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www.aquaminerals.com