

RESTSTOFFENUNIE WATERLEIDINGBEDRIJVEN B.V

Annual Report 2014

Annual Report Reststoffenunie 2014

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About Reststoffenunie Waterleidingbedrijven B.V.

Foreword "Gratifying Work"

In 2014, Reststoffenunie once again produced a good economic performance. Moreover - and at least as important - through greater chain cooperation and innovation we again succeeded in contributing to a decreased use of raw materials.

In the new business plan we have mapped out our course for the coming years; a future-oriented vision has been developed with a view to further strengthening Reststoffenunie's position. Chain cooperation plays a key role in this, as does the interaction with water companies in (neighbouring) foreign countries. Market developments do not, after all, stop at the borders.

Twenty years ago, 24 Dutch water companies, based on their sense of responsibility in preserving a clean and intact environment, took the initiative in setting up Reststoffenunie. The brief at the time was to ensure an efficient, effective and environmentally-sound disposal of the companies' residuals. Since then, Reststoffenunie

has grown into a professional organisation with an extensive network. Together with our chain partners, we assist our shareholders in finding sustainable outlets for their residuals at the lowest (total) costs.

It is gratifying work. We will also pursue our effort to add value whenever possible to all the residuals produced in the water cycle, and thereby contribute to the further development of a circular economy.

Hay Koppers



Reststoffenunie Waterleidingbedrijven B.V. (RU) was established in 1995 at the initiative of the Dutch drinking water companies. Our central task is relieving our shareholders of the residuals resulting from the preparation, transport and distribution of drinking water.

In doing so, we are governed by economic and sustainability objectives. RU sells the residuals - waste products and by-products – as (secondary) raw materials to clients in a variety of economic sectors. Our contract partners include the building and glass industries, mineral commodity traders, fossil fuel and biofuel energy generators, agriculture and horticulture players, and the water treatment branch. Together with our shareholders, supply-chain partners, (potential) clients and service providers, we continually develop new application possibilities and search for functional markets and sales channels.

RU is a private limited company. All of its shares are held by the Dutch drinking water companies. These shareholders exercise their vote on the occasion of the General Meeting of Shareholders (GMS) which is held twice a year. The Supervisory Board (SB) consists of five members who, upon the recommendation of the SB, are appointed by the GMS. RU was set up as a private limited company (B.V.), but in its daily activities actually operates as a Shared Service Centre (SSC) for its shareholders. This SSC is a reflection of a joint strategy, which combines the advantages of centralisation and decentralisation. It provides the opportunity to conduct



all activities concerning the residuals in approximately the same manner, bringing them together under a semiautonomous entity, which then provides services to its shareholders. As an SSC, RU is not a form of centralisation, since it is premised on collaboration, solidarity, equality and dependence.

To the General Meeting of Shareholders

We hereby present you with the financial statements for 2014 together with the Management Report. According to article 24 of the company's statutes, the management of RU presented the annual accounts for 2014 to the SB on the occasion of its meeting of 27 May 2015. The financial statements have been audited by MTH Accountants B.V. The SB has adopted the financial statements as an accurate representation of the company's financial position and established that the Management Report meets transparency requirements. Accordingly, we ask the GMS to adopt the financial statements. We also propose that the GMS discharge the management for its management, and the Supervisory Board for its supervision of said management. The net result amounted to \in 6,600; we propose that this amount be added to general reserves.

Twenty years ago the water companies in the Netherlands began a unique partnership: they decided to pool the responsibility for the disposal of their residuals. Reststoffenunie was born. We form a powerful chain that shares knowledge, innovates and is concerned about the future.

the power of partnership

Supervisory Board Report

In accordance with the statutes of the company, the most important powers within RU are attributed to the management and the SB. The GMS appoints the supervisors, upon the recommendation of the SB, and then the SB appoints the management. The management directs the company, and is responsible for achieving the objectives, for strategy and the associated risk profile, for the financial results and for societal aspects. Specific key management decisions require the approval of the SB. The management is accountable in this regard to the SB and the GMS. Management provides the SB, in its supervisory capacity, and the GMS, in its capacity as economic proprietor of the company, in a timely manner, with all the information they need to carry out their tasks.

Activities in 2014

In the year under review, the SB met with management on four occasions, namely: 13 March, 14 May, 17 September and 12 November. During these meetings members discussed the operational and financial progress of RU, as well as the strategy aimed at making the company future-proof. Apart from these formal meetings, informal consultations of course regularly took place among SB members and between them and management over the course of the year. The matters addressed by the SB during 2014 included:

- the development of the organisation's finances and results;
- the operational and financial developments in light of the budget and other objectives;
- the profit appropriation;
- the approval of the Annual Report 2013;
- the Business Plan 2015-2018;
- the continuity of RU's growth options;
- the developments regarding the collaboration between the waterboards and RU;
- the improvement projects for the quality control of residuals at the drinking water companies;
- the identification of risk points in the "stoplight report";
- the contingency plan to prepare for unforeseen events;
- the determination of a revised Treasury Statute and the decision to introduce it as of 1 April 2015;

- the policy on intellectual property protection and patent applications;
- the data and ICT testing by accountants MTH;the move to the new Waterhuis:
- the formulation of a profile in connection with the departure of the manager per 1 January 2016;
- the agreement over the revised purchasing conditions and contracts;
- the developments in products, markets, and regulatory and legal frameworks;
- the annual plan and budget for 2015;
- the appointment of Mr R. Kruize as Chairperson of the SB per 31 December 2014.

The General Meeting of Shareholders was held on two occasions, on 27 June and 19 December. During these meetings the following was agreed:

- the approval of the Annual Report 2013, consisting of the Report from the SB, the Management Report and the financial statements;
- the decision to add the net result for 2013 to general reserves;
- the discharge of the management for its management during fiscal year 2013;
- the discharge of the members of the SB for their supervision during fiscal year 2013;
- the approval of the Strategic Analysis and Business Plan 2015-2018;
- the approval of the document Groeiscenario's/-opties (Growth scenarios/options) aimed at strengthening RU's position, and agreement with the elaboration of concrete scenarios/options to realise the growth;
 the adoption of the list of positive- and negative-value residuals;
- the adoption of the revised statutes in connection with the Flex B.V. Act, the changing role and activities of RU, and the desire to also open up RU to other actors in the (public) water cycle;
- the adoption of the revised purchasing conditions and contracts, and the decision to elaborate and ratify the individual supply agreements;

- the approval of the annual plan and budget for 2015.

Roelof Kruize writes: "Ria Doedel stepped down as chairperson of the Supervisory Board on 31 December 2014. She had occupied the position since the end of 2007, having been reappointed in 2010. According to the rotation plan, Ria should have stepped down at the end of 2013 but, at the request of the SB – and the agreement of the GMS – she stayed on an extra year. The SB is grateful to Ria for her commitment to Reststoffenunie during a turbulent period. I am happy to take over the baton from her."

"The reason for the delay of my departure was the multi-annual plan for 2015-2018," says Ms Doedel. "It was approved at the last moment, thus rendering RU's future clear. It was a good moment to hand on the baton. Looking back, I conclude that Reststoffenunie is on the right path. Over the last 20 years it has justified its raison d'être. It is clear that in recent years the organisation has outgrown its pioneering stage and become a professional and expert club. This is perceptible in many ways, including in the interest expressed in several quarters for new forms of collaboration.

"Twenty years ago, storage sites all over the country were overflowing with residuals destined to be dumped as waste. In 1995, the water companies realised that this had to change. The situation today shows a world of difference: there is hardly any interim storage needed, residuals have become raw materials and a considerable residuals valorisation drive is underway. Of course a lot remains to be done. The supply and quality of the residuals vary greatly from one water company to another; some already produce a positive result for their residuals, while for others this is not yet the case. Reststoffenunie plays an important role in raising awareness and transferring knowledge. I'm a fervent believer in working as a collective. Whenever the water companies embark on trading their residuals individually, they are outplayed by the market. In light of our objectives, this makes no sense.

"Later this year, Reststoffenunie's managing director, Hay Koppers, will also be leaving the company. In the name of the SB, I would like to thank him for his unremitting effort and enthusiasm. Together with his team, he has produced excellent work, and certainly not always under easy circumstances. Hay Koppers has been a strong advocate of the recycling of residuals in the entire sector, and never solely for purposes of promoting Reststoffenunie's interests. He should be strongly commended for the professionalization that the organisation has undergone."

Nieuwegein, May 2015

In the name of the Supervisory Board R. Kruize, Chairperson

Supervisory Board composition

In accordance with article 15, paragraph 4, of the Articles of Association, and article 4 of the Reststoffenunie Rules of Procedure of the Supervisory Board, the Supervisory Board nominated Mr R. Kruize, of the Waternet Foundation, as the representative of the shareholders on the SB. This nomination was ratified by the GMS. Subsequently, Mr Kruize was appointed chairperson of the SB per 31 December 2014.

Per 31 December 2014 the SB's composition is 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 2015:

As a result of the changes in the SB, the rotation plan has also been adjusted.

	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	(possible) 31 December 2015	





The Supervisory Board, from left to right: Mr Fransman, Ms Bergkamp and Mr Corvers. Messrs Kruize and Hoogsteen we unable to attend the photo session.

We use of the Balanced Scorecard framework to describe the general situation at RU. This allows us to express our strategic objectives in concrete, measurable terms. As its name indicates, the framework's guiding principle is the achievement of balance, or equilibrium. Balance between short- and long-term objectives, between financial and non-financial criteria, between external and internal performance perspectives. But certainly also balance among the four themes and RU's vision and strategy. The framework also establishes a connection between the past (financial results), the present (internal processes and clients) and the future (innovation and learning).



Balanced Score Card

3.1 Financial

Main objective: lower total costs for the use or application of residuals

By, on the one hand, increasing earnings through the valorisation of residuals and, on the other, concurrently reducing the supply-chain costs, we work in a two-pronged way on improving results.

The average net costs to shareholders have dropped over the past four years by 9%, and currently amount to € 14.41 per ton. The contribution of shareholders to RU's administrative expenses in 2014 dropped by 11% compared to 2013, totalling € 4.71 per ton.

In 2014, RU paid out \in 6.00 per ton to the shareholders as

a result of normal business operations. The large supply of "negative-value residuals" had a dampening effect; in 2013 the pay-out was \notin 5.85 per ton.

RU observed that in 2014 that deliveries of a part of the residuals was still not running smoothly. Only one quarter of the water production companies supplied ferric (hydr) oxide of the agreed quality, in the agreed volumes and on schedule. For this reason, we will, beginning in 2015, assess the disposal plans based on the past record in order to have a clearer view of the actual situation. The water companies will be informed of any anomalies. On the basis of this information, RU will take mitigating measures with the associated (increased) costs.

Annual report Reststoffenunie

There are also still large variations in the direct disposal expenses of residuals among the different individual shareholders. Four participants now show a positive gross result. This means that their earnings from their residuals are greater than their direct removal, enrichment and sales expenses.

Failure expenses in 2014 dropped by about 4 percentage points to 7% of the total disposal expenses. This is the result of faster feedback from RU, improvement proposals,

Key figures

	2014	2013	2012	2011
Results				
Earnings	€ 4,292,500	€ 4,016,000	€ 3,800,000 1 ¹	€ 3,180,000
Non-shareholder turnover (%)	3.1	2.5	3.6	7
Total disposal expenses	€ 2,936,000	€ 2,737,000	€ 2,881,000	€ 2,725,000
Gross margin (% of turnover)	32	32	24	14
Net operating result	€ 6,600	€ 107,300	€ 70,300	€ 33,500
Net shareholder expenses per ton $^{\rm 2}$	€ 14.41	€ 14.37	€ 14.57	€ 15.82
Assets				
Balance Sheet total	€ 1,536,100	€ 1,622,600	€ 1,616,300	€ 2,094,000
Shareholders' equity	€ 692,700	€ 686,100	€ 578,900	€ 508,600
Liquidity (quick ratio)	1.8	1.7	1.5	1.3
Residuals figures				
Supply (tons) ³	187,500	175,700	185,500	191,000
Recycle percentage ⁴	81	87	79	79
Transport kilometres per residuals ton ${}^{\scriptscriptstyle 5}$	3.1	3.3	3.8	5.4
Personnel				
Number of employees FTE per 31.12.2014	7.1	7.1	5.7	4.3
Absenteeism (%)	5	1	4	8
Average net sales per FTE	€ 185,000	€ 163,500	€ 171,900	€ 93,300

1 corrected for unrealised earnings from depots

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

more frequent quality analyses and a (partial) recovery of own management over the supply chain.

The leading Dutch financial newspaper, *Het Financiële Dagblad*, again presented Reststoffenunie with its Gazelle Award in 2014. This incentive prize, which Reststoffenunie also received in 2013, is awarded to Dutch companies that achieve a growth in turnover of more than 20%, on an annual basis, over a period of three years.

We're sailing on a financially healthy course. By increasing the value of the residuals and simultaneously cutting processing expenses, we achieve good results for our shareholders, the Dutch water companies. In 2013, we passed the magic milestone of \in 1,000,000 in net earnings from the sale of residuals.

BALAN

good figures

Balance sheet details

Fixed assets
Current assets
Total assets
Shareholders' equity
Current liabilities
Total liabilities

Compared to 31 December 2013, the Balance Sheet total decreased by \in 86,500. The decrease in fixed assets reflects the accelerated depreciation of ICT equipment because, starting in January 2015, our ICT was to be incorporated into KWR's infrastructure. Within current assets, receivables increased by \in 154,000 and cash at bank and in hand decreased by \in 234,000. Per 31 December 2014, the amount from creditors was \in 93,000 below its level at the end of 2013.

Current assets

Receivables increased by \notin 200,000 in 2014. This is the consequence of a number of large projects at year-end. The 2013 provision for bad debts was entirely released in 2014. Because of the increased stocks, the value on the balance sheet date increased by \notin 17,000. The amount of pre-paid expenses for 2015 was \notin 23,000 higher than on 31 December 2013. The prepayments and accrued income are also \notin 140,000 lower because, and the end of 2013, the costs of the RU market evaluation and the disposal expenses still had to be calculated. This was not the case at the end of 2014.

Shareholders' equity

Compared to 2013, shareholders' equity increased by \notin 6,600; this amount was added to other reserves.

2014	2013
3,400	10,000
1,532,700	1,612,600
1,536,100	1,622,600
692,700	686,100
843,400	936,500
1,536,100	1,622,600

Share capital

In 2003, RU bought back its own shares. This buy-back was processed in the financial statements as a decrease in share capital that same year. This, however, was not the correct procedure, since the shares were only bought back but not withdrawn. In 2014 this was administratively corrected. The own shares bought back were deducted from other reserves for a total of \notin 22,000; this amounts to a transfer within the shareholders' equity item.

Current liabilities

Our liabilities to suppliers decreased by \in 40,000 in 2014. Per 31 December, there was a payment obligation related to national insurance premiums, pension contributions and sales tax.

The "other liabilities" and "other items" remained practically unchanged. These relate to general obligations concerning research, income received in advance, holiday pay and the Availability Budget. In 2014, \in 120,000 was restituted to our shareholders from the previous year's provisions, which had been built up for activities related to REACH registration.

Profit and Loss account details

	2014	2013
Earnings (turnover + consulting)	4,292,400	4,016,200
Shareholders' annual contribution	883,900	932,500
Other earnings	14,400 -	49,000
Total	5,161,900	4,997,700
Direct disposal expenses	2,935,900	2,779,400
Shareholders' earnings	1,094,400	1,028,800
Operating expenses	1,125,000	1,082,200
Total	5,155,300	4,890,400
Net operating result	6,600	107,300

Earnings

Earnings are calculated from the revenues from the sale of residuals, from consulting and the disposal expenses passed on to shareholders and non-shareholders. The net earnings from sales increased in 2014 by 11% to \notin 1,272,800.

With a practically stable supply of lime pellets and a slightly decreased supply of ferric (hydr)oxide (liquid and dewatered), earnings last fiscal year reached \in 1,633,600, an increase of \in 307,000 (21%) over 2013. The (negative) earnings from the sale of iron-lime sludge were higher by a factor of 1.5 than in 2013, reaching – \in 63,000. This was the result of a sharp increase in the supply of this residual.

The payment to the shareholders for the sale of these residuals was, in accordance with the earnings model, 90% of the sales value and amounted to \in 1,398,000.

For residuals not covered by the earnings model, € 287,000 was paid in acceptance expenses, an increase of 4% over 2013. More was paid for carbon sludge and lagoon-bed sediment as a consequence of larger supply volumes. The payments for filter gravel decreased thanks to better contract terms. The disposal expenses for aluminium sludge and river sediment increased slightly because of inflation adjustments under current contracts.

RU earned € 40,000 from consulting activities for shareholders and non-shareholders. Recommendations were made to Waternet concerning the cleaning up of historical stocks of coagulation sludge at one of the company's large water production sites. Moreover, RU, working with Arcadis, provided paid consulting advice to Manila Water (MWCI) regarding the valorisation of their drinking water residuals.

According to the legal competition and procurement provisions applicable to RU, turnover associated with activities for non-shareholders must not exceed 10% of total turnover. In 2014, this share was 3.1%, more than half a percentage point higher than the previous year.

Over the 2011-2014 period, RU succeeded in tripling the pay-back to shareholders, while disposal expenses increased by barely 12%.

Earnings and disposal expenses development (2011 = 100%)



Shareholders' annual contribution

The annual contribution of shareholders to RU's administrative expenses, based on the budget in the 2014 annual plan, amounted to € 883,900, a drop of 5% compared to 2013. There were lower expenditures projected for research and consulting.

Other earnings

The new information structure project will be continued in 2015. A sum of \in 20,000 has been reserved for this purpose. The interest income amounted to \in 5,600 in 2014.

Direct disposal expenses

The annual supply in 2014 from our shareholders and third parties increased by 7% over the previous year, amounting to 187,500 tons.

While there was a decrease in the supply volume of ferric (hydr)oxide, there was a considerable rise in the supply of the "other residual" category, such as carbon sludge, filter sand, iron-lime sludge and river sediment. The 7% rise in disposal expenses is attributable mainly to this residuals category.

Approximately 30% of the disposal expenses are incurred "within the gates" of the water production company, and these have fluctuated around \notin 4.50 per ton over the past three years. When adjusted, by subtracting the treatment of river sediment, the figure comes to about \notin 2.00 per ton. The disposal expenses "outside the gates" came to \notin 11.40 per ton in 2014, an increase of 5% over 2013.

Gross margin

The gross margin, as a percentage of total turnover, remained essentially unchanged in 2014 at 32%.

Shareholders' earnings

According to the earnings model, our shareholders receive 90% of the sales earnings of "positive-value residuals". Expenses related to "negative-value residuals", in turn, are charged entirely to the account of the shareholders. The list of positive- and negative-value residuals is approved every year by the General Meeting of Shareholders. In 2014, RU paid out € 1,111,800 to the shareholders, an increase of 8% compared to 2013. A remarkable example of innovation: more and more Dutch water companies are using calcite as seeding material in softening reactors. The pure lime that is produced is a valuable residual. But research and experiments lead to a far bigger leap forward: by using their own lime as seeding material, the water companies effectively close the lime loop.

innovation through research

Pay-out of earnings from the sale of residuals to shareholders



Compared to 2013, operating expenses decreased by 1 percentage point in 2014.

Personnel expenses

Operating expenses

RU's staff level was unchanged in 2014. As in 2013, a temporary staff member was seconded by RU to look after the planning, logistics and account management for (smaller) clients. In this way, part of the supply chain management activities were again re-insourced. In 2014 a (temporary) staff member was also brought in to support the transfer to the new ICT information infrastructure.

Personnel expenses rose slightly (2%) in 2014.

Cost of Sales

PR expenditures were lower in 2014 compared to 2013. The provision made for uncollectible debt in 2013, amounting to \leq 45,000, was entirely released in 2014. The research and consulting activities related to the Finances, Client, Internal Processes, and Innovation/ Learning perspectives were for the most part executed. The expenditures rose by \leq 56,600, partly due to the exceedance of budgeted project costs and partly due to unforeseen work. The first category concerns the collection of plastic pipe material, the refurbishment of the information structure, and the business plan. The unforeseen work included a policy plan for the protection of intellectual property, the demand for a residuals benchmark between water companies, and consulting about the task and role division between RU and the shareholders.

The new information structure was not completed in 2014. A sum of \in 20,000 has been reserved for this purpose.

Premises

Expenses related to premises, such as office rental, services and rental of external storage space, dropped slightly in 2014 compared to 2013. This is connected to the move in December to the new KWR building.

Other operating expenses

These expenses grew by \in 31,000 in 2014. The main reason for the growth was the increase in the number of permits and the assessment of the new information system by our external accountants. The move also involved extra costs.

Interest income

In 2014, interest income dropped by \in 6,000 as a result of lower interest rates on deposits and a decrease in the average monthly account balance.

3.2 Client

Main objective: have drinking water companies and clients sense RU's client focus.

At RU everything revolves around clients: on the one hand, our shareholders as suppliers of residuals and, on the other, the buyers of the residuals. Our clients are satisfied, we know how to retain clients and we are successful at serving higher, more profitable market segments.

Performance comparison

Our shareholders have indicated that they need to be able to share residuals-related information with each other. However, the Participation Agreement stipulates that no business secrets, such as sales forecasts and earnings calculations, that can be directly traced to an individual water company shall be exchanged. But to be able to learn from each other (benchmark), information sharing would be desirable. We are studying whether this is possible from the perspective of competition law.

Collection of plastic pipe waste

In March 2014, RU and BureauLeiding, the Dutch plastic pipe producers' branch association, signed an agreement establishing the terms of a collaboration for the collection and processing of plastic pipe systems. The shared objective is to increase the amount of plastic pipe waste that is collected and processed into new pipe material. On the occasion of a national meeting of shareholders, RU and its chain partners made a presentation on a new collection system for plastic pipes, which uses big bags, and the processing of the material to recycle the PVC, PP and PE. A test set-up has been created to demonstrate the procedure.

PR, communication and information

Status reports

Since 2010, RU has issued annual status reports to each individual drinking water company containing a detailed account of financial and product flows. These reports offer insight into the nature, composition, volume, destination and expenses of the company's residuals over the preceding four years. They also present the situation at the national level for purposes of comparison. The reports provide the basis for the drafting of the development plans or "road maps" for the residuals of the individual companies.

Quarterly reports

RU also issues quarterly financial overviews to its shareholders. These report on the current supply per residuals type versus the forecasted volumes, and the current earnings and expenses per residuals type versus the budget and year-end forecasts.

New information structure

Over the past year, RU has installed a new system (PB4AII) for the planning and registration of the product flows. The software was specially developed for the collectors, transporters, recyclers and processors of waste materials and residuals. The complex calculations of the earnings and expenses for the various supply chains, the correct accounting of the VAT (self billing, i.e., the buyer issues the invoice), and the invoice lay-out all required timeconsuming, custom work. As a result, the invoicing procedure for our shareholders was only properly on track in the second quarter.

Several water companies requested that a breakdown be provided of the various VAT rates and that the invoices be related to the sites or origin, rather than take the form of summary invoices. RU will respond to these requests within the capabilities of the new software.

Knowledge sharing

We collaborate with water companies both within and outside the Netherlands, national and regional governments, business, knowledge institutes and the Vereniging Industriële Bouwstoffen (Association of Industrial Building Materials), the Dutch Waste Management Association, and Nutrient Platform NL. RU is also a member of the Watershare[®] initiative, which is an international collaboration platform dedicated to watercycle-related knowledge. RU's knowledge and expertise are embodied in the Watershare[®] project in the form of the ResidualCycle tool. In addition, RU and its partners can submit proposals via the EIP ARREAU Water Action Group for the European innovation subsidies in the field of water and wastewater treatment and resources.

Moreover, in 2014 a "Residuals Production" course was organised in collaboration with the Foundation for Water Education. This course was given to four water companies in 2014.

Public Relations

RU collaborated with a TV programme on green visionaries with sustainable solutions. Press releases were issued and a promotional film made about the remarkable development path of the application of softening lime in eco-based C2C carpet tiles.

RU staff members made presentations in Schwerte (Germany), Karlsruhe (Germany), Manila (Philippines), Lisbon (Portugal), Amsterdam and Groningen at the invitation, respectively, of the Deutscher Verein des Gasund Wasserfaches, Manila Water, the International Water Association, Waternet and RVO Nederland. In addition, RU staff members wrote articles for the publications *DVGW energie/wasser-praxis*, *H2O*, Water *Science & Technology, and Water Governance*.

3.3 Internal Processes

Main objective: continuous professionalization of the organisation

RU is professionalizing its organisation continuously and in every area – through improved performance, a planning and control cycle that is in line with our strategy and objectives, process improvements, risk management and a governance focused on the organisation's stakeholders.

Business Plan

In June the shareholders adopted the Annual Report 2013 and the annual accounts. During the GMS the Strategic Analysis and Business Plan 2015-2018 was discussed and approved. The strengths, weaknesses and threats identified by this analysis present a picture of RU's unique position. A more future-proof organisation is required if RU is to conserve its qualities. The strategic plan therefore aims at strengthening the position of RU and thereby of its shareholders. The extension of collaborative activities with the waterboards is seen as the key future growth area. Another of these areas involves the broadening of the RU service provision abroad. In a separate international annex, the considerations are laid out, including the pertinent context, options and possible financial benefits from international activities, particularly in Germany. The shareholders have asked RU management to further elaborate concrete scenarios and growth options.

Rules/working method in RU-shareholder collaboration

There is an ongoing discussion about whether the Participation Agreement drawn up in 1995 (and modified in 2003) provides enough latitude for the different priorities of the shareholders, when it comes to RU's role in relieving them of their residuals. For some of the water companies the priority is that their residuals find a sustainable destination, some want more emphasis placed on financial results, and others are primarily interested in simply getting rid of their residuals. Proposals concerning the role-division between RU and its shareholders are the focus of repeated exchanges, which should result in new rules/working methods. It is expected that these will be addressed by the GMS in June 2015.

Statutes

Our notary has updated the statutes of RU. This, in connection with the Act on Simplification and Flexibilisation of the Law Governing B.V.s (Flex-B.V. Act), with the changed role and activities of RU, and with the desire to work with other actors in the (public) water cycle. In December 2014, the GMS formally approved the revised statutes.

Protection of intellectual property

RU considers that it is necessary to establish rights over new discoveries, specifically by applying for patents. Moreover, clear rules are needed to deal with the division of the intellectual property rights to the products, and between the partners involved in their development. The same applies to the division of the earnings from the products. A general policy statement has been drafted for the protection of the intellectual property, as has a step-by-step plan for patent applications.

Risk management and improvement points

Risk management forms part of the company's management model. Naturally, RU's most important risk is associated with the fact that it must always remove residuals from its shareholders and then sell or find a destination for them in an efficient, effective and environmentally responsible manner.

unexpected applications

Playing sports on lime pellets: who would have imagined it? For a few years now, lime pellets have been used in artificial grass. The pellets stabilise the grass mats and prevent the artificial grass blades from flattening. Another startling application is the incorporation of drinking water lime into Desso carpets. Three years of pioneering work have led to a production process that fully conforms to Cradle to Cradle[®] principles.

It was agreed with the SB that an annual risk inventory would be carried out, and that it would be evaluated at the first SB meeting of the year. It was also agreed that RU's annual report would always present the main operational risks identified. In 2014, they were the following: 1. Changes in regulations

- 2. Loss of internal capacity
- 3. Shareholder support

Risk 1. Changes in regulations

Changes in regulations can constrain sales possibilities. This risk is obviously difficult to limit. RU has chosen to adopt a proactive attitude with regard to lawmakers, and participates in various stakeholder organisations to keep a finger on the pulse of events and, where possible, to exert influence. The juridical status of the residuals is crucial in finding destinations for them. Previously, the loss of the by-product status of ferric (hydr)oxide and lime pellets was considered to be a risk: it would imply that practically all positive-value destinations for the residuals would vanish. Thanks to the development of a general acceptance of the circular economy, this worst-case scenario has become unlikely.

Risk 2. Loss of internal capacity

In view of the tight staffing levels and increasingly specialised knowledge involved in its activities, RU is vulnerable to the loss of its staff members. Shareholder or KWR back-up is not adequate in light of the substantive knowledge needed. We have studied how we can best anticipate temporary or longer-term losses. We do this by drawing up emergency plans or scenarios, and taking measures to manage the consequences. For example, we share our knowledge in-office so that tasks can be temporarily taken over by others, with the aid of (administrative) protocols and work procedures. In the event of long-term absences, an action plan has been drawn up for each function, and we call on specialised temporary employment agencies for interim replacements. In the event of a departure, we initiate a recruitment campaign or call on a recruitment and/or selection agency.

Risk 3. Shareholder support

Growth scenarios have been developed for the purpose of strengthening RU's position. Among other things, this involves setting up a franchise model and the incorporation of foreign water companies into RU's shareholder group. This requires broad support from our shareholders.

At the moment, RU has the backing of its shareholders whenever its conduct of business or trade abroad is part of a defensive strategy for the protection of the "home market" for the shareholders.

If broad support is not forthcoming, the growth option of extending our service provision abroad would be endangered. Through good communication and arrangements for shareholder involvement the risk factor can be lessened. The basic premise is that the shareholders must be able to closely monitor the development of the Business Plan 2015-2018. This we accomplish by adjusting the main objectives on the basis of the four perspectives (Financial, Client, Internal Processes, and Innovation and Learning), and identifying suitably adjusted strategies and possible actions.

Purchasing terms and conditions, and contract drafting

The purchasing terms and conditions apply to the process whereby RU relieves the shareholders of their residuals. These terms and conditions are reviewed with the Legal Branch Platform. A model contract has been created for the supply of waste materials and residuals to RU, in which the applicability of these terms and conditions is stated. The revised purchasing terms and conditions and the model contract have been adopted by the GMS. By yearend 2015, agreements with all of the shareholders for the delivery of their residuals will have been reached. These will consist of four parts:

- 1) General conditions regarding the delivery and removal of residuals; these are laid down in the revised purchasing terms and conditions.
- 2) A route or development plan for the long(er) term, including goals and actions concerning continuity, cost-effectiveness and sustainability of the residuals chain. Each company can determine its own priorities here. The Roadmap 2030, currently being developed by the water sector, should constitute the basis for the development plan.
- 3) The annual plan for the supply and quality of the residuals. This forms the foundation for the budget.
- 4) A multi-year plan. The individual contracts offer the possibility, in due course, for the introduction of a bonus/malus system.

Financial policy

Treasury

The treasury statute of May 2012 has been revised and supplemented with the appropriate 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.

Financing expenses

The outlays for administrative expenses are limited by the budget. The shareholders cover 90% of the administrative expenses, while RU is responsible for the remaining 10%. The disposal expenses (extraction, storage, transport, analysis and acceptance) are charged 100% through to the suppliers of the residuals.

Liquidity risks

There were invoicing delays in the first half of 2014, partly as a result of the introduction of a new information system. The average settlement period of receivable invoices rose to 54 days from the 2013 level of 43 days. RU's settlement period increased slightly to an average of 36 days. Because of the disruption in the invoicing the quick ratio dropped to around 1. In the second half of 2014, the invoicing was back on track and liquidity (quick ratio) was returned to 1.8.

The 2013 provision for bad debts could be entirely released in 2014.

Resilience

The RU resilience level is set at one annual salary of full-time employees, with a minimum of \in 100,000. Per 31 December 2014, this totalled \in 712,000, while shareholders' equity amounted to \in 692,700.

Personnel and organisation

RU has since 2012 been a member of the Water Company Employers' Association (WWb). In 2014, the foundation was established for a simple system for the assessment and development of staff members, respecting the Water Companies' Collective Agreement and, as far as possible, in keeping with the KWR approach. Competences and competence levels are set for each function, and linked to the strategic anchors and core values of RU.

Quality management

Kiwa audits

The periodic and recertification audits revealed no critical shortcomings. The periodic audit identified two noncritical shortcomings; in response, an action plan was developed. Kiwa accepted the plan, which was accorded a positive recommendation for recertification. The shortcomings related to the up-to-dateness of the quality manual and the absence of a supplier assessment. The ISO 9001 certificate (quality management system) for "intermediation in the sale of residuals from the water distribution branch" was extended by three years to April 2017. RU is making preparations to acquire the ISO 14001 standard for environmental management systems as well.

ISO 9001 revision

A new version of the ISO 9001 standard will appear in 2015. A transitional period will apply for the implementation of the new version, in preparation for which, RU's quality manager attended a training session in which those changes already known were explained. This knowledge will certainly be useful in the forthcoming updating of the manual.

Assessment of planning and registration system for product flows (PB4AII)

The external accountants MTH tested the reliability of the data and the system (PB4AII) at the appropriate load levels. Assessments were done of the General IT Controls (GITC), the internal control measures and the reliability of the transaction processing. MTH judged that the packet works effectively. The GITC however need to be sharpened. MTH also recommended improvements to the control measures in PB4AII. Based on the sample observations conducted, MTH concluded that the transactions within PB4AII are properly processed. The recommendations are to be followed up in 2015.

Complaints

In 2014, 15 complaints were recorded, compared to 17 in 2013. These had to do primarily with "poor" deliveries of ferric (hydr)oxide. Specifically, they mostly concerned adulterated dewatered and liquid ferric (hydr)oxide. Foreign substances were also encountered in filter gravel and lime pellets. Three complaints related to the service provision; in two instances, the service requested was not provided or provided too late, and in one case the transport vehicles were used improperly.

Archive and document management system

In December 2014, RU was essentially ready for the transition to working in KWR's new paper-free office. The Document Management System was expanded with a workflow model for the dispatch and authorisation of digital invoices. For archival management purposes, task fields, process owners, destruction criteria and storage periods were established. The archive management module was ready to be installed at the beginning of 2015.

3.4 Innovation and learning

Main objective: successfully promote new markets and developments.

By developing knowledge and anticipating opportunities and risks originating in the market, government policy and regulations, RU is capable of developing new markets for residuals and of securing their current destinations.

LAP2 revision

The National Waste Management Plan (LAP) has been revised. In LAP2 the chain approach, under the heading of "chain-oriented waste policy", occupies an important place. As happened earlier with the Ministry of VROM (now Ministry of Infrastructure and the Environment), the limit value for arsenic in drinking water residuals has been broadened. There is no limit value for residuals' application as construction material. The standard of 150 mg per kg of dry matter is, however, maintained for the application of ferric (hydr)oxide as a sulphur-binding agent in co-digesters and in wastewater treatment plants. With regard to other applications, such as in household-waste digesters, the limit value of 500 mg per kg of dry matter holds.

Waste or raw material: a web-based tool

RU was part of a test panel for the Rijkswaterstaat Environment "Is It Waste?" web-based tool. Entrepreneurs can use the tool to test whether the waste regulations are applicable to a material. The test has already been used to decide whether coagulation sludge that has been in long-term storage at a water production site should be considered waste or a raw material. The Environmental Service responsible ultimately granted permission for the delivery of circa 10,000 m³ of this residual as a raw material input to the brick industry. This is a higher value application than is its use as filling material in infrastructural works, and furthermore led to considerable transport savings.

Drinking water residuals Roadmap 2030

To make the chains and cycles within which our residuals are used future-resistant, we have to look beyond the period of the Business Plan 2015-2018. This is why, in mid-2014, the Drinking Water Residuals Roadmap 2030 project was launched. A working group, with the participation of all drinking water companies, discussed goals and actions with a view to the continuity, cost-effectiveness and sustainability of the residuals chain. By taking into account the anticipated market and contextual developments, the working group produced a vision with concrete ambitions and strategies. Each water company can, on this basis, determine its own commitment and agree to concrete working agreements with RU. Moreover, the expectations, with regard to expenditures and earnings, can be made explicit. The roadmap will be incorporated into the delivery contracts to be reached between RU and each individual water company in 2015.

Radiation protection framework

As expected, at the end of 2013, the Council Directive 2013/59/Euratom was published. The directive lays down uniform basic safety standards for the protection of the health of humans exposed to ionising radiation. It refers to the production of drinking water from groundwater as one of the target sectors; in principle the resulting residuals are subject to a reporting obligation and inspection system. RU is following these developments closely, and is in contact with the Residuals Management Project Group of the Deutscher Verein des Gas- und Wasserfaches. An extensive German research project is planned for 2015. In parallel, RU will study a variety of representative residuals from a number of water companies with regard to ionising radiation.

a sustainable VVOCC

Reststoffenunie works on the world of tomorrow. Not only do we reduce the volumes of waste, we also contribute to the preservation of natural sources. Lime pellets are a sustainable alternative to quarry lime, for instance. And ferric (hydr)oxide is being increasingly used in biogas plants. What's the environmental impact? CO2 emissions that are cut by more than 10 million kg.

Resource recovery

The European Innovation Partnership (EIP) on Water has approved a proposal submitted by a consortium, with KWR and RU participation, for the establishment of the ARREAU Action Group for resource recovery. This opens up great opportunities for stimulating the production of raw materials from water and wastewater at the European level.

Strengthening private-public partnership (TKI Water)

In 2014, RU also worked on a number of TKI (Top consortium Knowledge and Innovation) projects in the field of resource recovery from water. The knowledge institutes and market players work hand-in-hand. RU's input consists in providing information about residuals, authoring business plans, calculating environmental impacts and providing market information.

Phosphorus removal and biogas cleaning

A stable pellet has been produced from ferric (hydr)oxide; the product is called WRAP[®] (Water Residual Aqua/Air Purifier). The granular product can be used to treat both gas and (waste)water. The waterboards have expressed an interest in WRAP[®]. The business case is positive and we are now looking for partners to produce and market the product.

Calcite as seeding material

A number of shareholders are on the path to replacing sand as a seeding material in softening reactors by calcite, originating either from quarries or self-produced. This latter option is still the subject of study. Calcite paves the way not only for the reuse of pellets in the drinking water process, but also in high-value segments such as foodstuffs, paper, plastics and special glass types.

Magnetite from groundwater

In 2014, Wageningen University began research into the production of magnetite from groundwater. RU is one of the project's co-financers. The research focuses on the formation of magnetite as a high-value compound for application in ferro fluids, magnetic inks and in MRI contrast agents. Magnetite has a considerably higher commercial value than does iron trioxide [ferric (hydr)oxide] as a drinking water production residual.

Sustainability and CSR

The drinking water sector in the Netherlands has the ambition of contributing to a smarter handling of our material streams. This not only leads to cost-savings, but also benefits the environment. In 1995, RU was set up by the drinking water companies to find sustainable and costefficient destinations for the residuals from drinking water production processes. We do this through:

- recycling and reuse
- valorisation
- reducing the CO2 footprint of the entire residuals chain.

A decrease in the use of primary raw materials by our clients ensures that the residuals' processing results, on balance, in a reduction in the drinking water sector's CO2 footprint.

On the basis of the principle of Corporate Social Responsibility (CSR), we are very attentive to chain responsibility. Together with our shareholders, clients, service providers and knowledge institutes, we seek sustainable solutions in the chain. We have a preference for long-term partnerships, and transparency and compliance are two of our guiding principles.

Recycling percentage

The percentage of residuals used as construction material in infrastructural works dropped during the 2011-2013 period from about 21% to over 15%, but in 2014 it rose again to almost 19%. This increase is entirely related to the sharp growth in the supply of negative-value residuals such as aluminium sludge, filter material, river sediment and carbon sludge. The recycling percentage (in accordance with the revised definition of the National Waste Management Plan) has thus fluctuated around 80%, with the exception of 2013 when its level reached 87%. Dumping is hardly ever used any longer as a disposal method, and represents at most a few tenths of a percentage point.

Innovative PMCs

The development of a lime pellet based on calcite as a seeding material (see Chapter 3.4) has laid the foundation for economic initiatives and innovation. Thus sand-free lime from drinking water production processes is being used to produce carpets. Sand-free lime pellets are also suitable for reuse as a seeding material in a drinking water company's own softening processes. This represents a higher rung in the ladder of sustainability!

There has also been a significant shift in the applications of ferric (hydr)oxide and (iron)lime sludge, which has entailed a reduction in the use of primary products that have a high environmental impact. The part of dewatered ferric (hydr) oxide directed to the brick industry dropped from 38% to 1% thanks to its application in biogas plants. And the proportion of (iron)lime sludge used in infrastructural works dropped from over 43% in 2013 to only 6% in 2014.

Cutting CO2 in the residuals chain

The use of residuals implies that primary raw materials are preserved – for example, the application of lime pellets saves on quarry lime. This results in a demonstrable environmental gain. Using Life-Cycle Analysis (LCA) together with sales and transport data, one can calculate the environmental impact of the residuals chain of the Dutch drinking water companies. In terms of CO2, the application of drinking water residuals saved 10.5 million kg of CO2 equivalent. This amounts to 5% of the CO2 impact of drinking water production activities in the Netherlands. The saving in 2013 was of a similar order of magnitude, namely, 11 million kg CO2.



The gains produced by the replacement of ordinary raw materials by drinking water residuals vastly surpasses the environmental impact of the residuals' transport, storage and dewatering. The recycling of ferric (hydr) oxide constitutes by far the biggest contribution to the reduction of the CO2 footprint. Ferric (hydr)oxide used in the desulphurisation of biogas, or as a phosphorus binding agent in wastewater at wastewater treatment plants, replaces substances that have a far bigger environmental impact. However, the environmental gains from the use of lime pellets instead of primary lime are, in most applications, limited, since lime does not have a big impact on the environment.



Transport kilometres

The average transport distance per ton decreased by 7% in 2014 by using more efficient logistics for ferric (hydr)oxide, selling lime pellets closer to home, improving the loading of the transport vehicles, and increasing the amounts transported by ship. The average transport distance of the other residuals category however increased, putting pressure on the overall result.



Developments by residual

RU's products are formed in a chain of companies and activities. The management of this chain is crucially important for RU given its drive to seamlessly match supply and demand. This is how we satisfy our suppliers and buyers, maintain a strong market position and live up to our name as a reliable supplier and disposer of residuals.

This explains RU's firm commitment to structurally improving product quality and security of supply within the supply chain. In this regard, communicating with our shareholders, who supply the products and residuals, and providing them with information are important means of initiating and maintaining the continuity of improvement actions. In the year under review, improvement proposals were elaborated in two pilot companies on the basis of historical data on their outgoing residuals. The feasibility of the proposals was assessed through the use of separate business cases. KPIs were also developed for critical chain activities during the extraction and disposal of residuals. The water companies and RU thus got more insight into their performance.

Lime pellet applications (ton)

5

Construction material			Ceramic products			
	13,829	2012		1,729		2012
	26,831	2013		1,685		2013
	27,013	2014		5,142		2014
Residential construction			Floriculture			
	26,624	2012		3,648		2012
	15,333	2013		2,505		2013
	11,600	2014		3,041		2014
Glass industry			Aquaria/terraria			
	144	2012		456		2012
	3,597	2013		489		2013
	6,571	2014		437		2014
Mineral commodity trade			Other			
	16,739	2012		202		2012
	14,814	2013		190		2013
	8,143	2014		160		2014
Energy generation						
	2,593	2012				
	1,673	2013				
	0	2014				
Carpet industry			Total			
	0	2012			66,722	2012
	0	2013			67,117	2013
	4,608	2014			66,715	2014

Supply and sale

The supply of lime pellets over the past few years has fluctuated around 67,000 tons on an annual basis, which represents about a third of the total supply of drinking water residuals. The sale of pellets brought in almost € 150,000 more in 2014 than in 2013, an increase of 35%. Expenses for their part increased by 2%.

We also want to minimise the environmental impact of the transport of residuals. We do this by finding destinations for them as close to home as possible, by better loading the vehicles and by transporting more by ship. And how about a truck that dries lime pellets en route!

smart transport

The shift between the different PMCs was clearly less significant than in previous years. The sale to the construction material industry remained stable, partly on account of contractual obligations. Demand from the glass industry increased, as did that from the ceramic product industry. Deliveries for use as crawl-space insulation (residential construction) and to mineral commodity traders both dropped further for pricing reasons. Beginning in the second quarter of 2014, carpet manufacturer Desso began using ground softening lime in the backing of its product. This fits in with the company's ambition to operate its production process according to Cradle to Cradle® principles. This was preceded by a research and development process of almost three years. In the end, adjustments needed to be made at both ends of the production chain to make the project technically feasible. The lime pellets are brought to specification levels at Sibelco in Geertruidenberg.

With the water company WML paving the way, the use of calcite as a seeding material in softening reactors has been launched in the Netherlands. Other water companies have since decided to replace (garnet) sand by calcite. Sand-free pellets offer more application possibilities in higher market segments than do lime pellets containing a nucleus of (garnet) sand.

% of Dutch produced lime pellets with calcite nucleus



It is anticipated that, during the course of 2017, half of the water softening sites will have shifted to the use of calcite. This mineral originates in lime quarries. In 2014, Waternet began with trials, within the context of the TKI scheme, to make its own seeding material from the lime pellets. The initial results were very encouraging and, in the event that the overall picture remains positive in 2015, the sector will, in principle, be able to become self-sufficient with regards to seeding material for the softening of drinking water.

Product development

The first consideration in the development of products from softening pellets is the intrinsic quality of the material. In a competitive market, it is the distinctive properties of a PMC that determines whether it will be a success or not. In the case of lime pellets, for instance, these properties are (a combination of) colour, particle size distribution, solubility, microbial and chemical purity, hardness and uniformity.

In 2014, extensive tests were conducted on the applicability of lime pellets in agriculture. The most obvious and apparently simplest application relates to the neutralising effect of lime pellets. Field tests were carried out on their effect on soil characteristics. One of the challenges this raised was the uniform and regular dispersal of the pellets. The test results were good and the first commercial deliveries will take place in 2015.

As in previous years, joint research – ranging from desk and lab research to pilot tests – was conducted with various potential clients into a wide range of applications. These varied from applications in golf courses, solar collectors, plastics, cosmetics and perfume bottles. What most of these applications have in common is that at some point in the chain an extra (added value) step needs to be incorporated to render the application possible. This might involve a certificate, but also the physical processing of the pellets. RU is thus always searching with its partners for partners capable of adding these steps to the chain in a qualitative and cost-effective manner.

Ferric (hydr)oxide

For the time being, no new PMCs have been developed for ferric (hydr)oxide. The primary application of this residual is as a sulphur-binding agent in biogas plants. RU is currently the market leader in this segment. The demand for liquid and dewatered ferric (hydr)oxide remained stable last year.

Liquid ferric (hydr)oxide

Destinations of Ifh (ton) from drinking water companies



The sale of over 46,000 tons of liquid ferric (hydr)oxide in 2014 produced extra earnings of circa \in 43,000 compared to 2013. This represents an 8% improvement in the result, despite a 4% drop in the volumes supplied. Over the last few years, the disposed volumes of liquid ferric (hydr)oxide have shown a decreasing trend. This is mainly the result of the need to deliver the desirable quality in terms of the concentration levels of the suspension; specifically, the requirement is that the dry matter content be at least 7.5 percentage by weight.

The determination of the residuals' quality is done according to the sampling & analysis protocol that is part of RU's purchasing terms and conditions. The results define the destination or, as the case may be, the route of the residual. Measurements of the dry matter content of liquid ferric (hydr)oxide in particular have sharply increased in recent years. While in 2011 only 30% of the loads were measured, in 2014 the figure was 90%. Moreover, starting in 2013, RU began to re-insource the planning and logistics for this residual. This activity was previously carried out by service providers.



Thanks to the frequent measurements and the tighter administration, the number of client complaints has dropped. Unfortunately, however, about one third of the supply still needs to be delivered via (external) depots. The residuals' destinations have been relatively unchanged over the last couple of years: about 70% goes to the biogas sector, that is, to co-digesting and householdrefuse digesting plants; more than one quarter goes to wastewater treatment plants.

Following a public tender, RU also acquired the supply of ferric (hydr)oxide from a Flemish water company. This puts us in a better position to service clients in the south(west) of the Netherlands.

Dewatered ferric (hydr)oxide

Construction material

constructi	Un matchai		
		223	2012
		292	2013
		232	2014
Biogas ger	neration		
		8,962	2012
		12,500	2013
		13,697	2014
Infrastruct	ural works		
		6,319	2012
		1,691	2013
		280	2014
Total*			
		15,504	2012
		14,483	2013
		14,209	2014

* excl. coagulatiion sludge Waternet

Over the last few years, the supplies from Waternet of coagulation sludge/river sediment have been revised downwards. This is connected to the change in the status of this residual: from dewatered ferric (hydr)oxide to river sediment. The reason is the (excessively) low iron content of the residual. River sediment falls under the collective category of "other residuals".

Due to this difference in the supply quality as well as favourable market conditions, an extra \in 132,000 was earned from this residual compared to 2013; that is, more than a 40% increase.

The market for dewatered ferric (hydr)oxide remains good, with strong international demand for good quality ferric (hydr)oxide, particularly in Germany. This strong demand, coupled with a limited supply of good quality material, makes for a positive market outlook. Over the last years, Reststoffenunie obtained a by-product status for lime pellets, lime sludge and ferric (hydr)oxide. No simple matter, since the legal and regulatory frameworks for waste products are very complex. The staff at Reststoffenunie follow developments in this area very closely and exert influence whenever possible. This calls for the right expertise and a pile of regulatory work.

pile of regulatory vork

Product development

RU has a very solid market position when it comes to sulphur-binding processes in (co)digesters. However, this also means that RU is vulnerable. This is the main reason that we are actively searching for alternative PMCs for this drinking water production by-product.

We studied the possible application of ferric (hydr)oxide as a colouring agent. Unfortunately, it turns out that the residual's tinting strength is insufficient for this PMC to be further developed.

In 2014, research was begun in various settings for the purpose of studying more closely the effects of ferric (hydr)oxide when it is combined with other substances. In particular, the question of its interaction with phosphorus is frequently raised. One the one hand, it can be used to bind phosphorus but, on the other, phosphorus can be added to it to produce a slow-release fertiliser.

The TKI project for the pelletization of ferric (hydr)oxide as a phosphorus-binding agent in surface water has been finalised. A preparation method was developed to produce a granulate/pellet that effectively captures the phosphorus and remains stable in an aquatic environment. So far, the product has been manufactured in small batches and applied in nutrient weirs for surface water.

In late 2014, two new research projects were launched into the application of granulate made from ferric (hydr)oxide: one into arsenic binding from water and the other into sulphur binding from (bio)gas.

Other residuals

Supply and sale

In 2014, the supply of other residuals (excluding plastic and AC pipes) increased by almost 24,000 tons to nearly 52,000 tons. This includes the river sediment residual (see chapter on dewatered ferric (hydr)oxide), which accounted for almost 14,000 tons; if one excludes this residual, the increase over 2013 amounted to 10,000 tons. In particular, there was in increase in the supplies of iron-lime and lime sludge, carbon sludge, river sediment and lagoon-bed sludge. Supplies of filter gravel/sand and aluminium sludge were practically unchanged.

Product development

Most of the above-mentioned residuals ended up as construction material in infrastructural works.

The approvals were received in accordance with the Soil Quality Decree. This disposal route is not desirable, either from a financial or sustainability point of view. For this reason new applications are being sought for the different categories.

Aluminium sludge is disposed of as construction material. The transport expenses remained at the 2013 levels. In the year under review, various trials were begun with the aim of further reducing the transport volume. Partly through the use of business cases, we will establish which is the best way of dewatering this difficult sludge. There is also an ongoing study into ways of decreasing the dosage of aluminium-containing flocculent agents in the coagulation process, and thus producing less aluminium sludge.

Filter sand and gravel also always ended up as construction material in infrastructural works. But it turned out that the material was also suitable for use in building helophyte filters, and could also be reused, after having been washed. As a result, in 2014, the disposal of the residual in infrastructural works was almost halved. Various research projects have demonstrated that the (ferrous) filter sand and gravel is capable of binding itself to phosphorus. The material has also undergone long-term tests for its application in enveloping drains used in the lowering of groundwater levels in bulb fields. The leaching of phosphorus via the drainage water was cut by 90%. Furthermore, the application of (ferrous) filter sand and gravel in waterways offers a real possibility for capturing phosphorus. And we are now awaiting location-specific regulations to be allowed to use this residual in controlling eutrophication.

Lime sludge is in principle a suitable means of controlling the natural acidification of soil. But this requires the regular addition of lime to the soil (conservation liming). If the residual's neutralising value is insufficient, then other applications will have to be sought.

Iron-lime sludge has a variety of disposal routes, such as its application as construction material in infrastructural works, as a binding agent for sulphur in digesting installations and as a lime fertiliser. Iron-lime often shows large fluctuations in quality and supply, which makes the establishment of stable supply chains difficult.

Prospects and expectations

Carbon sludge was directed primarily to infrastructural works, as was the case in preceding years. A limited amount, following additional certification, was used as structural material in soil improvement products. RU managed to insist on better processing fees than in 2012, when the material was disposed of for the last time. Research is ongoing into its application as a feedstock in the treatment of wastewater, in the dewatering of biological sludge as a structure improver in compost.

River sediment/lagoon-bed sludge was primarily disposed of as construction material. A small portion was used as a (colouring) raw material in the brick industry. This resulted in a saving of 20% on the disposal expenses for this residual.

Plastic pipes (PVC-PP-PE). In 2014, over 750 tons were disposed of, a slight decrease compared to 2013, when about 830 tons was collected. See Chapter 3.2, "Collection of plastic pipe waste".

Asbestos cement (AC) pipes are considered "hazardous waste" and need to be disposed of in appropriate sites. In 2014, more than 3,500 tons of AC pipes were taken to landfill sites, almost 500 tons less than the previous year. It is expected that, beginning in 2017, the processing of the AC pipes using denaturation techniques (thermal processing) can get started. At that time the landfill ban, established under the Decree on Landfill Sites and Landfill Bans, will come into force. The criterion that the recycling price cannot exceed the total landfill disposal cost and the environmental tax (Act on the Environmental Protection Tax) by more than 50% has been eliminated. Now, a maximum price of \leq 175,00 per ton is assumed. If the processing method turns out to be more expensive than this, then a resort to landfill will still be a possibility.

Regenerant is a highly saline residual stream released from the regeneration process in ion exchangers. At the request of PWN, RU researched the short-term disposal possibilities for regenerant (also known as brine) in the context of the realisation and commissioning of the new Andijk-3 water production company. It was found that the residual's discharge into surface water, the sea or sewage system was not practicable. Its application as process water was also explored, but was not dependable enough in certain cases; in the cases where it was dependable, the technological challenges were too large given the limited period the project was granted.

In the end, the water company decided over the next couple of years to inject the regenerant into saline underground aquifers. In the meantime, PWN, research institutes and RU will together study the possibilities of separating the humic and fulvic acids present in the regenerant for marketing purposes. In addition, the study will specifically examine possible adjustments in the regeneration process in ion exchangers. We are also looking for partners outside the sector who are capable of separating these acids in a cost-effective and reliable manner.

Struvite, an ammonium magnesium phosphate compound, is released as a residual during the dephosphorisation of wastewater. Waternet asked RU to take care of the valorisation of the struvite produced in its Amsterdam-West WWTP. Working closely with Waternet we are setting out the possible applications. The expectation is that delivery of struvite to market players can get started in 2015. RU also participates in the struvite working group of the European Sustainable Phosphorus Platform, and in efforts to obtain the material's approval as an EC fertiliser and under REACH provisions.

Financial

We expect that over the next four years, through organic growth, the pay-out to our shareholders will double, with the shareholders' contribution remaining unchanged. This is based on the assumption of a stable annual supply of circa 200,000 tons and that no significant shift occurs in the supply of positive- and negative-value residuals.

The turnover increase will result primarily from higher sales value of the lime pellets. Partly also due to the termination of inexpensive bulk contracts, and partly as a result of product development.

The turnover of ferric (hydr)oxide, liquid and dewatered, will develop positively, though at a slower pace. What is important in this regard, is that the shareholders succeed in improving the quality of this residual at the water production company. Innovations will focus on developing ferric (hydr)oxide into an adsorbent for specific substances, such as phosphorus, sulphur and arsenic from (bio)gas and (waste)water.

In the other residuals category, carbon sludge and ferrous filter sand have the most favourable development prospects.

We anticipate an increased interaction with foreign markets in the years ahead. The Netherlands has a well developed market for drinking water residuals and, if we do nothing about the influence of the international market, the prices in our country will be put under pressure.

Since 2012, the residuals' disposal expenses "outside the gates" of the water production companies increased by 9% to \in 11.40 per ton. The detour via external depots, especially of liquid ferric (hydr)oxide, is the explanation. We believe that a saving of 20% in "outside the gates" expenses is possible. This could be achieved by the delivery of agreed quality and quantities, so that the clients can be supplied immediately and not via intermediary depots. We also expect to improve results by purchasing services more shrewdly, by increasing the load rates of the transport vehicles, and – regarding lime pellets – by making adjustments to the storage facilities (e.g., containers) at the company sites.

It is expected that public enterprises (including water companies), in accordance with the Modernisation of the Corporate Tax Duty Act, as of 1 January 2016, will have to



pay corporate tax on activities that are not included among their legal functions.

Trading in by-products or, as in this case, disposing of waste products via RU is not a legal function, so that the exemption from corporate tax, which currently applies to RU, could possibly disappear. In 2015, RU must make preparations in anticipation of this corporate tax obligation; this could possibly involve the need to discuss transferpricing policy with the Tax Office.

Sustainability

Europe is on course to becoming a community in which (secondary) raw materials are safeguarded, and the environmental impact of the consumption, production and disposal of materials are reduced. By 2020, waste will be managed as a resource. Thanks to separate collection and the development of functional markets for secondary raw materials, recycling and reuse will become economically attractive options – for both the public and private sectors. The market share of secondary raw materials is expected to continue expanding. Companies in a variety of economic sectors are increasingly open to using good-quality secondary raw materials as a way of increasing their recycled content, and thus realising their sustainability ambitions. All this provides a solid foundation for further (organic) growth for RU.

Collaboration with the waterboards

At the initiative of Waternet and the Resource Factory, a collaborative project has begun with RU aimed at reducing the negative cashflow generated by residuals (such as fat and sand) from wastewater treatment plants. The paths to this end include cutting costs in the chain, sharper pricing of services and coming up with a cheaper selling process. Valorisation of the residuals could produce a neutral, or even a positive, cashflow.

Markets abroad

Within the framework of the Business Plan 2015-2018, we will discuss international markets with our shareholders and how we should approach them. The basic premise is that the approach must in the long term produce financial, as well as sustainability, benefits. RU's position must also remain safeguarded as much as possible.

Financial statements 2014 Balance Sheet

7

People, planet, profit... in all our efforts for a sustainable world, we can't forget that it is all ultimately about people. People who love what they do, who carry out their work every day with passion and commitment. From people, for people. For her future.

THE S

work

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FINANCIAL REPORT

BALANCE SHEET PER 31 December 2014

(after profit appropriation following recommendation)

	31-dec-2014	31-dec-2013
	€	€
ASSETS		
Fixed assets		
Tangible fixed assets	3,382	9,960
Current assets		
Receivables and accrued income	1,065,852	911,750
Cash and cash equivalents	466,860	700,869
LIABILITIES	1,536,094	1,622,579
Shareholders' equity		
Issued and paid-up capital	449,222	427,297
Share discount	11,923-	11,923-
Share premium	6,148	6,148
Other reserves	249,240	264,609
	692,687	686,131
Current liabilities		
Current liabilities and accrued liabilities	843,407	936,448
	1,536,094	1,622,579



Financial statements 2014 Financial statement notes

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PROFIT AND LOSS ACCOUNT FOR 2014

	2014	2013
	€	€
Earnings		
Turnover residuals	4,252,091	3,991,242
Consulting	40,362	24,955
	4,292,453	4,016,197
Shareholders' annual contribution	883,865	932,492
Other earnings	20,000-	37,215
	5,156,318	4,985,904
Operating expenses		
Direct disposal expenses	2.935.967	2,736,697
Earnings distributed to shareholders	1,111,789	1.025.195
Pre-netted earnings for shareholders	17,400-	3,640
	4,030,356	3,765,532
Gross turnover result	1,125,962	1,220,372
Operating expenses		
Personnel	676,223	664,649
Depreciation	7,298	3,546
Cost of sales and PR	44,843	145,009
Research & consulting costs	251,867	196,229
Premises	38,936	40,609
Supervisory Board	7,250	7,100
Other operating expenses	98,652	67,691
	1,125,069	1,124,833
Total expenses	5,155,425	4,890,365
Operating result before interest	893	95,539
Interest income	5,663	11,739
Result	6,556	107,278



Financial statement notes

Accounting policies

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.

Tangible fixed assets

The tangible fixed assets are valued at purchase 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.

Accounting policies 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 buyers 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 notes

ASSETS	31-dec-2014 €	31-dec-2013
Fixed assets	C	C
Tangible fixed assets		
Inventory		
Book value per 1 January	9,960	11,004
Plus investments	719	2,502 13,506
Minus depreciation fiscal year	7,297	3,546
Book value per 31 December	3,382	9,960
Cumulative depreciation	15,231	7,934
Current assets		
Receivables and accrued income		
Receivables	958,698	620,118
Taxes and national insurance contributions	-	83,824
Accrued income	107,154	207,808
	1,065,852	911,750
Receivables		
Nominal value	958,698	665,118
Provision for bad debts	-	45,000-
	958,698	620,118
Taxes and national insurance contributions		
Value added tax December	-	83,824
Accrued income		122 700
RU market evaluation study to be charged to water companies	-	123,798
Transport expenses yet to be received	-	17,492
Pre-naid contract costs	21,027	12 412
Pre-netted water companies' earnings	63 500	46 100
The heated water companies carrings	107,154	207,808
The maximum term of the repayments is one year		
Cash and cash equivalents		
Deutsche Bank, current account	54,834	80,506
Deutsche Bank, month/quarter savings account	412,026	620,363
	466,860	700,869

Balance sheet notes

LIABILITIES

Shareholders' equity

Issued and paid-up capital

Status per 31 December (issued).

In 2014, this amount was adjusted in connection with the purchase of shares in 20

Authorised share capital amounts to € 910,000 divided into 20,000 shares with a nominal value of € 45,50, of which € 449,222 is paid up.

Share premium

This item arose through the sale of 1,242 shares in 2011 with a premium of \notin 4.9 share.

Share discount

This item arose through the sale of 568 shares with a discount of € 21.00 per shares with a discount of 100 per shares with a discount of 100

Other reserves

Status per 1 January Conversion of guilders to euros Purchase of own shares Plus: profit appropriation Status per 31 December

Current liabilities

Current liabilities and accrued liabilities Payables Taxes and national insurance contributions Other debt and accrued liabilities

Taxes and national insurance contributions

Value added tax December Pension contributions Payroll tax and national insurance contributions

Other debt and accrued liabilities

Accrued expenses Revenue received in advance on depots Earnings to be settled with shareholders Holidays Holiday pay Collective Labour Agreement obligations Received for projects yet to be realised Yet to be settled regarding REACH follow-up

Off-balance-sheet items

Reststoffenunie has signed a rental contract for its premises for 7.5 year, and contracts for lease cars. Obligations that range beyond one year amount to € 260,800.



	31-dec-2014	31-dec-2013
	e	e
	440 222	427 207
	449,222	427,297
003		
95 per		
are.		
		1 55 001
	264,609	157,331
	1,131-	-
	6 5 5 6	107 278
	249.240	264.609
	,,	
	543,928	584,213
	83,269	28,935
	216,210	323,300
	043,407	930,448
	54.009	-
	7,375	7,897
	21,885	21,038
	83,269	28,935
	116,561	125,535
	36,200	21,930
	-	6,901
	16,932	13,481
	3,040 20,871	5,546 13,400
	20,071	16 500
		119,998
	216,210	323,300

Financial statements 2014 Profit and loss account notes

Earnings

Turnover residuals Settled disposal expenses shareholders Settled disposal expenses non-shareholders Earnings residuals sales shareholders Earnings residuals sales non-shareholders

Consultancy services Consultancy for shareholders Consultancy for non-shareholders

Direct disposals expenses *

Gross margin

Turnover of non-shareholders of Reststoffenunie Waterleidingbedrijven B.V.

Idem as percentage

Other earnings Reserved contribution for postponed projects Reserve available for REACH contribution

Operating expenses

Personnel Direct salary expenses National insurance contributions Pension contributions Indirect salary expenses Short-term staff *

* The figures for 2013 have been adjusted for comparative purposes.

Personnel

As in 2013, staff size in 2014 stood at eight people, seven of whom in permanent positions and one short-term hire.

Cost of sales Travel and accommodation Contributions Provision for bad debts PR

Research & Consulting expenses Perspective: Financial Perspective: Client Perspective: Internal Processes Perspective: Innovation/learning

Debited from research & consulting reserve



2014	2013
€	€
2 880 002	2 761 573
2,000,005	2,701,373
33,870	51,502
1,272,827	1,145,803
65,385	32,364
4,252,091	3,991,242
6,083	8,255
34.279	16,700
40.362	24 955
10,502	21,955
4 202 452	4.016.107
4,292,453	4,010,197
2,935,967	2,736,697
1,356,486	1,279,500
122 540	100 566
155,540	100,300
3,1%	2,5%
20,000-	16,500-
-	53,715
20 000-	37.215
20,000	
2014	2013
2014 €	2013 €
<u>2014</u> €	2013 €
<u></u> €	<u>2013</u> €
<u>2014</u> €	<u>2013</u> €
<u>2014</u> € 455 399	2013 € 444 512
2014 € 455,399 85.994	2013 € 444,512 76 706
2014 € 455,399 85,994	2013 € 444,512 76,706
2014 € 455,399 85,994 57,386	2013 € 444,512 76,706 55,079
2014 € 455,399 85,994 57,386 15,850	2013 € 444,512 76,706 55,079 15,003
2014 € 455,399 85,994 57,386 15,850 61,594	2013 € 444,512 76,706 55,079 15,003 73,349

52,930	46,423
8,238	8,433
45,000-	45,000
28,675	45,153
44,843	145,009
43,481	73,708
105,609	138,431
71,892	13,785
47,385	23,765
268,367	249,689
16,500-	53,460-
251,867	196,229

Financial statements 2014 Other information

OTHER INFORMATION

Statutory profit appropriation

Article 27 of the company statutes establishes the following provisions regarding the profit appropriation:

- 1. The profit shall be at the free disposal of the General Meeting of Shareholders. The General Meeting of Shareholders may reserve an amount from the profit established in the financial statements that it has approved.
- 2. The company may only make distributions to the extent that its shareholders' equity exceeds the amount of the issued and called-up part of the paid-up capital, plus the reserves to be maintained in accordance with the law.
- 3. Profit distribution shall only be made after the adoption of the financial statement from which it appears that such distribution is allowed.
- 4. Shares or certificates held by the company, or shares and certificates in which the company has right of usufruct, shall not be included in the profit appropriation calculation.
- 5. The General Meeting of Shareholders may decide to make interim distributions. The decision to pay an interim dividend from profits during the fiscal year in course can also be taken by management. Distributions referred to in this item may only be made if the provisions of item 2 of this article are met.
- 6. Unless the General Meeting of Shareholders establishes otherwise, the dividends shall be paid within 30 days after being approved.
- 7. The General Meeting of Shareholders may decide to pay dividends, in part or in whole, in a form other than cash.
- 8. A shortfall may only be settled through the reserves established by law inasmuch and to the extent that the law permits.
- 9. In the event that the total amount of the issued and called-up part of the capital, plus the reserves to be maintained in accordance with the law, is less than the most recently established legal minimum capital level, the company must maintain a reserve equal to the difference between the amounts.

Appropriation of 2014 results

In anticipation of the decision to be taken in this regard by the General Meeting of Shareholders, the 2014 result has been added to other reserves. This decision, which has yet to be taken, has already been incorporated into the 2014 financial statements.



Colofon

Publication

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