



STIFTUNG ZENTRUM FÜR NACHHALTIGE
ABFALL- UND RESSOURCENNUTZUNG



Activity Report / Annual Report

2021

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Imprint

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Foreword by the President

Sustainability & Circular Economy

The two terms sustainability and circular economy, which in their origin stand as eponyms for two very valuable concepts, are in danger of degenerating into meaninglessness in the general perception due to their often misused use.

Hans Carl von Carlowitz (1645-1714) from Saxony is considered the founder of the concept of sustainability. In his book «Sylvicultura oeconomica» from 1713, he describes sustainable forestry, in which only as many trees should be felled as can be reforested.

The World Commission on Environment and Development first formulated and defined the concept of sustainable development in 1987 in the Brundtland Report. This provided the impetus for a worldwide discourse and public attention for the topic of sustainability.

At the Sustainability Summit on 25 September 2015, the United Nations adopted the 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals.

It is of central importance for the future of humanity that we align our actions with these goals. We must all ensure that the concept of sustainability does not degenerate into an empty shell. For there is a danger that the term is used in an inflationary manner and, moreover, is incorporated into advertising slogans in order to write «black» figures with «green» arguments.

When the word «circular economy» is used, I personally perceive a different tendency: the term circular economy is applied with great preference above all in connection with the recycling and reuse of waste. While this is correct and important, it falls far short of the mark.

The Swiss Federal Statistical Office regularly publishes an indicator on the topic of material flow accounts. This records the quantities of materials used in the production and consumption of goods and services. Since the year 2000, the annual net increase in materials in Switzerland (excluding

raw materials derived from waste recycling and landfilled waste) has been around 7 tonnes per capita per year.

If we assume that today in Switzerland about 1 to max. 1.5 tonnes of mainly mineral and metallic materials are recycled per capita and year from the waste generated, it becomes obvious that we do not live in a closed-loop system but primarily consume primary resources and, like a hamster nation, build up a stockpile that is constantly growing.

This stockpile consists of buildings, infrastructure facilities, vehicles, consumer goods and much more. When creating new goods, it is probably not primarily in the nature of man to take into account the end of their use in order to ensure that as many parts as possible - in the sense of the circular economy - can be recycled later. Unfortunately, in individual cases, even the application of planned obsolescence is used by deliberately limiting the useful life of products by shortening their lifespan.

If there is no longer any use for individual objects and they are declared as waste, we unfortunately often only have insufficient knowledge about whether, how and to what extent the ingredients can be used again as directly as possible.

In order for the concept of the circular economy to contribute to sustainable development, we must not only focus on dealing with waste, but must take much more targeted action to ensure that everything we produce and consume is designed in such a way that these goods

- a) require as little (grey) energy as possible in their production,
- b) can be used for as long as possible,
- c) require as little energy as possible during their lifetime,
- d) can be returned to the cycle as completely as possible after use and without high energy input.

The holistic consideration of materials and energy is therefore very important because we cannot assume that materials and energy will continue to be available to us in the next 20 to 30 years in the desired, as unlimited quantities as possible.

When it comes to the circular economy, the Pareto principle [80:20] seems to influence the discussion in the wrong way. The circular economy is preferably discussed in the context of waste recycling: Then, when it comes to the recycling and return of 1–1.5 t of materials per capita and year that are recovered from waste. This is socially accepted and can, if necessary, be mandated by law.

If the production and consumption of primary products is about putting a multiple of materials into our medium- to long-term depot, the concept of circular economy applies much less, although everything we acquire as goods will sooner or later be «handed over» to waste recycling.

If we look with the necessary foresight at the relationship between the primary and secondary raw materials that we bring into the cycle, we would have to - following the Pareto principle - direct most of our efforts towards how and in what form we use primary raw materials so that they can one day be used for a «second or third life». This is not yet so widely accepted in society and cannot be so easily mandated by law.

Because all the goods we produce and consume every year ultimately have an «expiry date», they will one day be declared as waste. Growing stockpiles will lead to growing amounts of waste. This increases the opportunity, but also the responsibility, to increasingly use materials that are not based on primary raw materials to manufacture new products. This would then be a living circular economy.

For this to succeed, «circular thinking» must be applied as a mandatory premise in the design of new buildings and products. In addition, we urgently need to move away from declaring secondary raw materials as «second-class».

These are major challenges - we would like to make a contribution on the part of the ZAR Foundation.

Thank you for your support in our efforts.

Franz Adam

President of the Board of the Foundation

Technical Developments

COMPETENCE CENTRE KEZO, HINWIL (ZH)

NFM residual content - successful further development of the bottom ash processing plant

With the test plant developed in 2020 to determine the residual content of non-ferrous metals (NFM) in processed bottom ash fractions, a significantly higher potential of non-ferrous metals in the processed residual bottom ash was demonstrated than was previously assumed.

The fact that especially the heavy precious metals are enriched in these residual metals makes the utilisation of this NFM potential not only ecologically but also economically increasingly important.

These findings put earlier analyses and decisions into perspective, especially with regard to the utilisation of the mineral fraction in the bottom ash. The large-scale trial carried out by the ZAR to assess the consequences of this misjudgement

proved so costly in detail that the final report will not be available in 2021 as expected, but only in 2022.

Based on the recommendation of the ZAR Foundation, the Board of Directors of ZAV Recycling AG decided to build a third processing line for fine bottom ash smaller than 15 mm. In addition to improved efficiency, the expansion will also significantly increase the processing capacity of the plant and thus bring it into line with the requirements for the years 2023 to 2025.

With the plant expansion, a comprehensive optimisation of the plant was carried out on the basis of the operating experience of the last five years with the aim of significantly reducing the maintenance costs and at the same time maintaining the high availability of the plant. The planning and conversion of the facility was largely carried out by our own employees and was successfully completed in September 2021.



▲ New screening machines

Based on initial experience with the expanded plant, the following statements can already be made today:

- The residual metal content, measured with the ZAR method, could be reduced by 25% in the fraction 1-15 mm.
- Significant is the average increase in the gold content in the heavier NFM fractions, which significantly improves the ecology and economy of the processing plant. In the course of further operational plant optimisation and the commissioning of the partial recycling of the processed bottom ash fraction 1-15mm, the residual metal content to be deposited will be significantly reduced again.

Determination of the NFM content in raw bottom ash in the Canton of Zurich

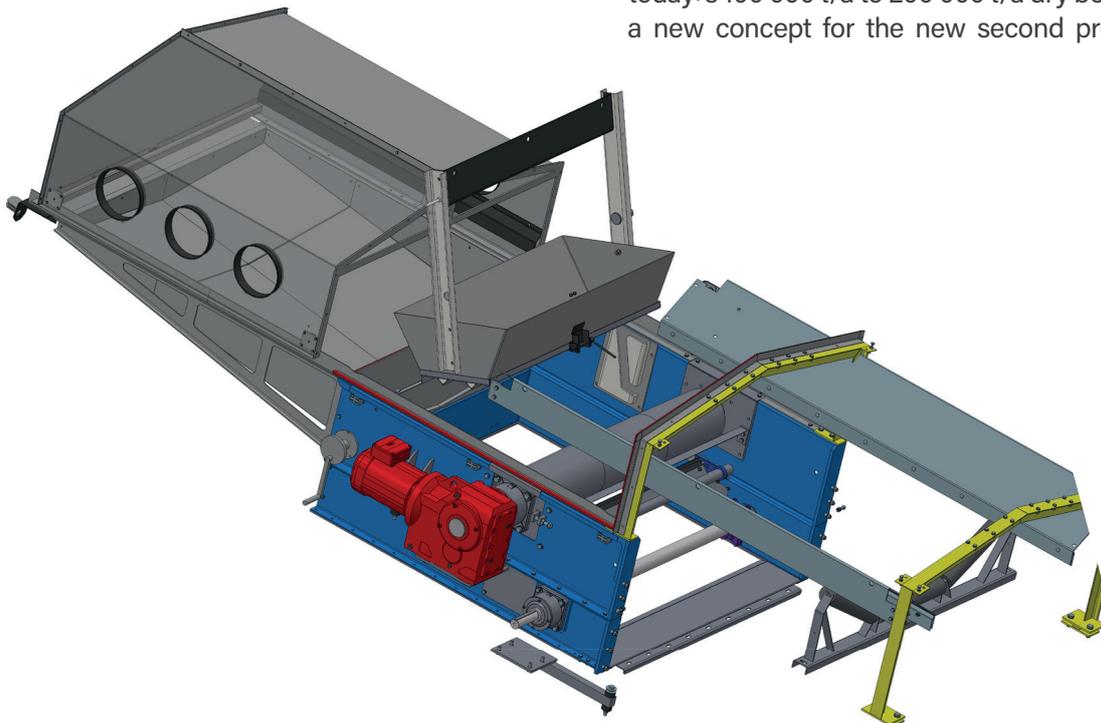
On behalf of the AWEL and Zürcher Abfallverwertungs AG, the raw bottom ash was sampled at all five waste recycling plants in the

canton of Zurich under the leadership of engineer Stefan Skutan in order to determine the NFM content in the raw bottom ash.

The determination of the NFM content in the raw bottom ash is intended to show the differences in the NFM content in the various wastes of the plants and to enable conclusions to be drawn about the NFM potential in the bottom ash of the individual plants. The ZAR Foundation has built a sampling station at the ZAV Recycling AG processing plant for representative sampling of the dry raw bottom ash from the ERZ, Horgen and KEZO plants. The extensive processing of the dry raw bottom ash and the determination of the residual NFM content of the wet and dry bottom ash was carried out according to the ZAR standard method in the ZAR processing laboratory. The results will be published in 2022.

New concept for processing line 15–30 mm

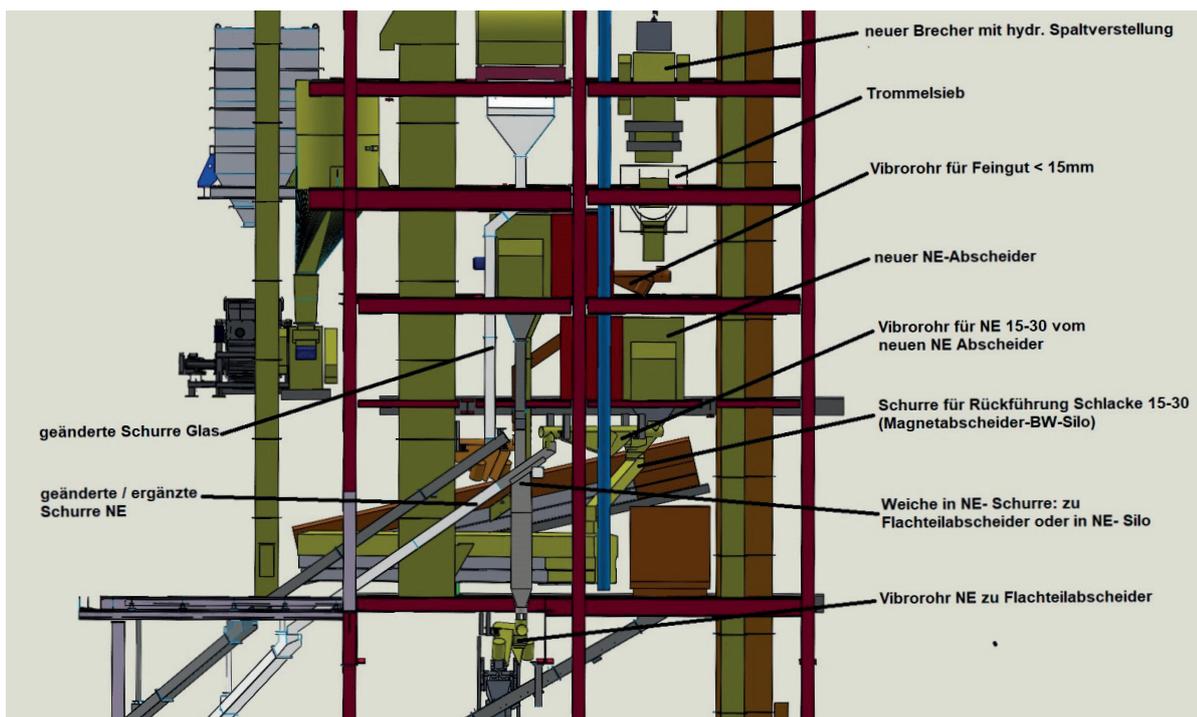
In connection with the capacity increase of the processing plant of ZAV Recycling AG from today's 100 000 t/a to 200 000 t/a dry bottom ash, a new concept for the new second processing



▲ CAD drawing of the ZAV Recycling AG sampling station

line of the bottom ash fraction 15-30 mm was developed. Based on the experience of the existing processing line and with the objective of further improving the efficiency of the NFM separation and the quality of the NFM, as well as reducing the costs for maintenance, the following changes are planned:

- Crushing of the bottom ash fraction 15-30 mm will now take place before the NFM separation. This is intended to achieve a significant reduction in bottom ash adhesion to the NFM and to significantly improve the NFM quality.
- The jaw crusher is now equipped with an automatic, hydraulic gap adjustment to keep the gap width constant over the service life of the impact plates. This ensures a constant particle size distribution of the crushed material, independent of the manual adjustment of the gap.
- Upstream of the non-ferrous separator, the fraction smaller than 15 mm is screened with a drum screen and fed directly to the fine processing unit. This configuration ensures that the NF fraction smaller than 15 mm, which was still in bottom ash agglomerates larger than 15 mm before the crusher, is separated in the fine bottom ash processing and can thus be fed directly to a smelting plant without further processing. In addition to better cleaning of the NFM, we also expect a significant reduction in operating costs from the drum screen compared to the circular vibrating screen used today.
- A glass separator has been dispensed with, as the effort required to separate the glass with the current separation technology cannot be justified ecologically and economically. It is planned to set up the new treatment line in the 3rd quarter of 2022.



▲ Layout concept for the additional capacity increase of ZAV Recycling AG

In this context, the installation of a flat part separator or its economic viability will be examined again, as the general conditions for the return of the coins have changed.

Non-ferrous metal recovery from the magnetic bottom ash of ZAV Recycling AG

As has already been demonstrated in earlier tests, the non-ferrous metal potential in the magnetic bottom ash is ecologically and probably also economically very interesting. The magnetic bottom ash is separated with very strong magnetic separators before the non-ferrous separators. Since some of the non-ferrous metals also have small iron inclusions, these are separated by the strong magnets upstream of the non-ferrous separators and are thus lost in the magnetic bottom ash.

Mr Zenger's ETH masters thesis on «Recovery of non-ferrous metals from dry magnetic incinerator bottom ash» verified this non-ferrous metal potential and examined alternative possibilities for separating these non-ferrous metals. The master's thesis is published on the ZAR website (www.zar-ch.ch) and underlines the need to find large-scale technical solutions for separating non-ferrous metals from the magnetic bottom ash. This would again significantly reduce the residual metal content in the bottom ash. The picture below shows non-ferrous metals from magnetic bottom ash.

Bottom ash utilisation - first steps

The plan to realise the joint development project «Use of mineral residues from thermal waste treatment in cement production as an element of the circular economy» with cemsuisse, the



▲ Non-ferrous metals from magnetic bottom ash

association of Swiss cement manufacturers, failed due to the patent claims on the part of cemsuisse. The ZAR Foundation, together with Dr. Jürg Liechti of Neosys AG, has continued the work and produced a basic document on the findings, problems and starting points for future-oriented solutions.

The following table summarises the potential of the substances in terms of climate and environment and their technical feasibility.

Furthermore, the topic of using mineral residues from thermal waste treatment in cement production was actively pursued. The aim is to provide the three Swiss cement manufacturers with the first processed material samples with the corresponding declarations for various possible uses in a technical meeting in the first half of 2022 and to continue the further development of the materials on a needs-specific basis.

No.	Materials / Recycling	Potential benefits in terms of climate protection	Potential benefits for the environment in general	Technical feasibility
1	Ca-containing bottom ash components as raw meal substitute in clinker production	Extremely high	high	Possible with optimisations
2	Ca-containing wood ash as raw meal substitute/corrective in clinker production	high	present	Given
3	Fe-containing bottom ash components as a corrective in clinker production	present	present	Given
4	Finely ground bottom ash components as additives in cement production	high	high	Foreseeable, progress still needed
5	Gypsum from flue gas scrubbing as additive in cement production	present	very high	Given
6	Ground bottom ash as an aggregate in concrete production	medium	high	Foreseeable, progress still necessary
7	Gypsum and Fe-containing residues from the Phos4life process as corrective or additive in cement production	present	high	Possible with optimisations

Carbonisation of bottom ash

Initial preliminary tests on the carbonisation of bottom ash were carried out with the ETH Zurich and the company neustark ag, Bern, as part of a master's thesis. Laboratory tests in batch operation showed that the CO₂ storage potential in the bottom ash dust is approx. 10% of the bottom ash quantity and thus significantly higher than with recycled concrete.

In addition to CO₂ storage, carbonisation will also lead to «ageing» of the bottom ash, which in turn will have a positive effect on the eluate values of the bottom ash. In 2022, further trials are to be carried out in continuous laboratory batch operation and the results verified with the pilot plant using larger quantities of bottom ash.

In addition, a decision must be made as to whether direct carbonisation (pure CO₂) or indirect carbonisation (clean gases from the MWIP) is more suitable for the bottom ash.



▲ Pilot plant for indirect carbonisation of materials (©neustark ag)

COMPETENCE CENTRE KEBAG, ZUCHWIL (SO)

SwissZinc

The SwissZinc construction project for the central recovery plant for metals from the hydroxide sludge of the Swiss waste incineration plants in Emmenspitz in Solothurn could be continued again after a change of general planner. With the same project and general planning team as for the ongoing KEBAG Enova project, it was possible to draw on the site experience and a well-established team. Fewer interfaces, simpler communication and project handling with this new but proven team should provide the basis for the envisaged construction decision at the beginning of 2023.

To this end, all the necessary basics are to be worked out in the one and a half years that now lie ahead. In addition, a detailed cost breakdown of the entire SwissZinc process will also be made, which will serve to determine the subsequent acceptance fee for the hydroxide sludge to be processed.

The necessity and meaningfulness of such an industry solution was brought home to us not least by the pandemic-related bottlenecks in transport and logistics chains as well as material procurement. Short distances and extracting raw materials from waste for local industry is more than just a trend. If implemented ecologically and efficiently, the circular economy offers great potential for metals as well as phosphorus.

Phosphorus recovery

The ongoing project to test the feasibility of the Phos4life process at the Emmenspitz site was technically finalised. The corresponding balance sheets and the operating and investment costs derived from them for the performance and scope of supply of Técnicas Reunidas (Madrid, Spain) are now available.

With the process configuration now determined, the engineering of the remaining specialist planning work and trades could be started, the completion of which is expected by the end of 2022.

Essentially, the following questions are to be answered:

- Is there enough space on the Emmenspitz site (SO) to build a Phos4life plant for 40,000 t/a of sewage sludge ash?
- Can the logistics for management and supply/disposal on the site be handled and integrated into the processes of the other major projects planned on the site (KEBAG Enova, SwissZinc) in such a way that at least 50% of the goods can be transported by rail?
- Can the Phos4life concept be approved from a cantonal perspective?
- What are the estimated investment and operating costs for the entire facility at the Emmenspitz site?

FLUWA platform

In 2020, a new platform for the «FLUWA plants», i.e. those plants that recover metals from the filter ashes of MSWIs by wet chemical means, was launched together with the Association of Swiss Waste Recycling Plants (VBSA). The focus will be on the exchange of practical experience and the joint optimisation of Swiss plants. In addition to fulfilling the legal requirements for metal recovery, further optimisations can be examined and promoted with regard to the envisaged SwissZinc industry solution.

The feedback from the participants so far has been very positive and we hope to be able to carry the good spirit and momentum into the future and thus implement further goal-oriented and successful tasks on the way to a resource-efficient and ecologically sustainable circular economy. A big thank you at this point for the open and constructive exchange of all participants and the will to tackle and implement something.

Public

Visitors

Due to the pandemic, only few visitors from Switzerland and abroad were able to gain an insight into the goals and work of the foundation in 2021 and to show them the successful implementation of new findings at the treatment plant.

Among them were representatives of French, English, Italian and Swiss companies in the waste recycling and treatment industry, as well as representatives of the UREK of the National Council, the politicians of the Zurich Cantonal Council and SENS.

Publications

«Recovery of non-ferrous metals from drymagnetic incinerator bottom ash»

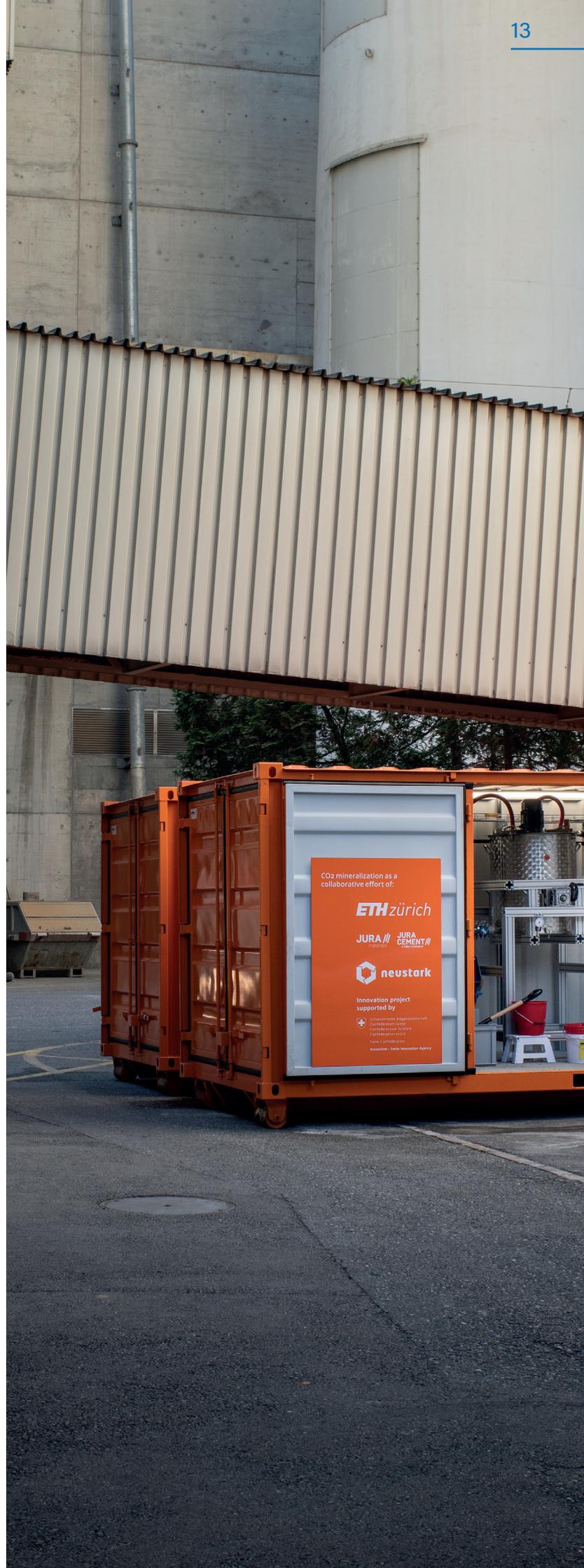
Master Thesis, ETH Zürich, ZAV Recycling AG, Foundation ZAR

Björn Zenger, May 2022

Presentations/Events

Participation in the webinar of the company Magaldi SPA, September 2021

«Waste to profit – technical solutions to main issues in incineration bottom ash management»



Foundation

Excerpt from the foundation certificate

Art. 2 Purpose of the foundation

The purpose of the foundation is to promote a sustainable materials policy for the treatment and recycling of waste. It promotes the further development of state-of-the-art technology and supports the corresponding development activities which are to take place in the immediate vicinity of the waste-to-energy plant of the Zweckverband Kehrichtverwertung Zürcher Oberland KEZO in Hinwil/ZH or its legal successor. The foundation can also support the commercial exploitation of the findings.

With a broad Swiss sponsorship and cooperation with interested parties, it is intended to ensure that the knowledge gained is incorporated into plant development and plant construction in Switzerland or abroad.

The purpose of the foundation can be extended to activities with similar objectives at a later date.

We reserve the right to change the purpose of the foundation in accordance with Art. 86a ZGB (Swiss Civil Code). The foundation does not pursue any commercial purposes and is not profit-oriented..

Founders

VBSA

Verband der Betreiber Schweizerischer Abfallverwertungsanlagen
(Swiss Association of Waste-processing Plants)

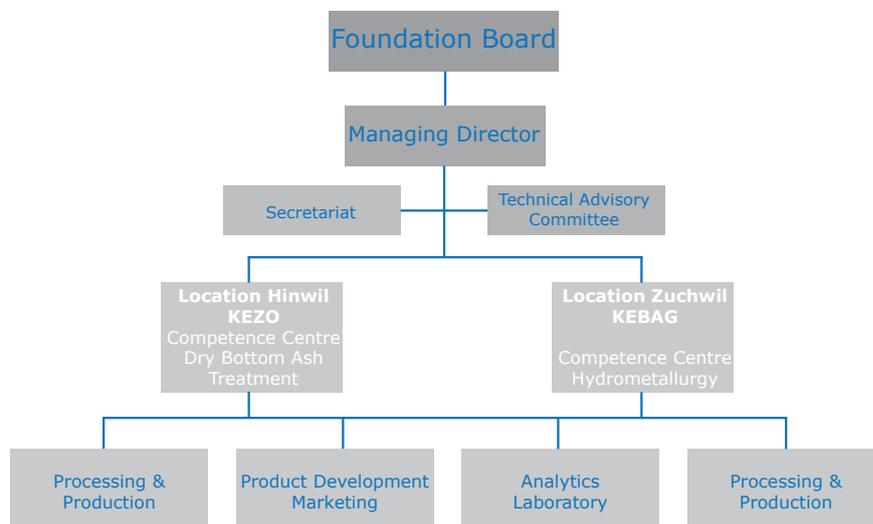
Kanton Zürich

Baudirektion, Amt für Abfall, Wasser, Energie und Luft (AWEL)
Department for Waste, Water, Energy and Air of the Canton of Zurich

KEZO

Zweckverband Kehrichtverwertung Zürcher Oberland, Hinwil
(Association of Waste Disposal for the Zurich Oberland, Hinwil)

Organisation Chart



Foundation Board

Adam, Franz (Präsident)	Senior Consultant
Dr. Fahrni, Hans-Peter (Vizepräsident)	Senior Consultant
Christen, Daniel	SARS Stiftung Auto Recycling Schweiz, Geschäftsführer
Dr. Gablinger, Helen	Hitachi Zosen INOVA AG, Director Product & Marketing Energy from Waste
Juchli, Markus	KEBAG AG, Director
Martin, Ulrich	MARTIN GmbH, Eigentümer
Morgan, Kurt	NEROS NEROS Network Mineral Resources Switzerland, Managing Director
Steiner, Peter	KVA Thurgau, Chairman of the Executive Board

Technical Advisory Board

Dr. Morf, Leo (Vorsitz)	AWEL, deputy section head, sewage sludge, Waste incineration plants, biomass power plants (with waste wood)
Bolliger, Markus	Jura Cement AG, Wildegg
Budde, Ivo	Hitachi Zosen INOVA AG
Prof. Dr. Ing. Deike, Rüdiger	Institute of Metal Technologies, University of Duisberg-Essen
Dr. Eggenberger, Urs	Institute for Geology, University Bern
Prof. Dr. Hellweg, Stefanie	ETH Zürich, Institute for Environmental Engineering, Zurich
Dr. Ing. Koralewska, Ralf	MARTIN GmbH, Munich
Dr. Liechti, Jürg	Neosys AG, Gerlafingen
Dr. Zeltner, Christoph	Stahl Gerlafingen AG, Gerlafingen

Operation

Competence Centre KEZO, Hinwil

Böni, Daniel	Managing Director
Di Lorenzo, Fabian	Projekt manager – Metallic raw materials
Böni, Frauke	Secretariat

Competence Centre KEBAG, Zuchwil

Dr. Schlumberger, Stefan	Head of Competence Center Hydrometallurgy
Dr. Bernhard, Andreas	Development engineer (from 4/2020)
Fromm, Stephan	Project Manager
Gozdzik, Fine	Chemical laboratory assistant

Donors

In alphabetical order

AIK Technik AG	Sursee
ERZ Entsorgung + Recycling Zürich	Zürich
Hitachi Zosen INOVA AG	Zürich
KEBAG AG	Zuchwil
KEZO Kehrichtverwertung Zürcher Oberland	Hinwil
KIBAG RE AG	Rotkreuz
KVA Linthgebiet	Niederurnen
Magaldi Industrie s.r.l.	Salerno (I)
MARTIN AG für Umwelt- und Energietechnik	Wettingen
Renergia Zentralschweiz AG	Perlen
SARS Stiftung Auto Recycling Schweiz	Bern
SATOM AG	Monthey
Verband KVA Thurgau	Weinfelden
WIEDAG AG	Oetwil a.S.
ZAV Recycling AG	Hinwil
Zweckverband für Abfallverwertung im Bezirk Horgen	Horgen

Financial Report

Income Statement

	2021 [CHF]	2021 [CHF]	Budget 2021 [CHF]
Income			
Donations	429 986.00	495 000.00	385 000.00
Other Income	7 937.00	4 921.05	1 000.00
Subsidies BAFU	0.00	0.00	0.00
Service revenues	948 668.90	978 305.72	549 000.00
Total Income	1 386 591.90	1 478 226.77	935 000.00
Personnel expenses			
Wages third parties	438 385.75	556 796.28	473 000.00
AHV/IV/EO/ALV/third parties	102 098.01	101 881.72	100 000.00
Other personnel expenses	5 352.14	14 324.76	15 000.00
Training and further education of employees	0.00	0.00	2 000.00
Total Personal expenses	545 835.90	673 002.76	590 000.00
Other operating expenses			
Material costs	1 242.20	10 435.80	111 000.00
Analysis costs	13 259.43	38 214.88	86 000.00
Expenses for third-party services	32 921.32	2 860.42	105 000.00
Expenses for new screen development	89 860.00	25 398.00	70 000.00
Expenses PHOS4LIFE	3 423.80	8 815.34	0.00
Expenses Projects	269 966.98	157 341.75	0.00
Project reserves	63 976.48	51 844.63	0.00
Rent expense KEBAG	313 878.61	362 334.28	-150 000.00
Administration & IT costs	65 000.00	65 000.00	65 000.00
Advertising	16 404.13	26 057.01	15 000.00
Representation expenses	2 500.00	41 851.15	5 000.00
Fee Board of Trustees	74.59	762.59	2 000.00
Costs Board of Trustees	4 061.04	2 980.55	7 500.00
Costs Technical Advisory Board	0.00	40.98	2 000.00
Other operating costs	4 794.70	4 753.30	25 000.00
VAT from subsidies	0.00	0.00	0.00
Total Other operating expenses	881 363.28	798 690.68	343 500.00
Total Operating Expenses	1 427 199.18	1 471 693.44	933 500.00
Operating result before depreciation & interest	-40 607.28	6 533.33	1 500.00
Depreciation and value adjustments	0.00	0.00	0.00
Operating result before interest	-40 607.28	6 533.33	1 500.00
Financial expenses	253.24	255.35	0.00
Financial income	0.00	0.00	0.00
PROFIT/LOSS FOR THE YEAR	-40 860.52	6 277.98	1 500.00

Balance Sheet

	31.12.2021 [CHF]	%	31.12.2020 [CHF]	%
Assets				
Cash and cash equivalents	1 831 417.56	82.7%	1 789 530.96	85.2%
Raiffeisenbank Uster, current account	331 417.56		1 789 344.51	
Raiffeisen Saving account 31	500 000.00		0.00	
Raiffeisen saving account 90	500 000.00		0.00	
Raiffeisenbank Uster, investment account	500 000.00		186.45	
Trade accounts receivable	239 896.50	10.8%	311 404.00	14.8%
Receivables donor contributions	175 000.00		160 014.00	
Receivables third parties	64 896.50		151 390.00	
Accrued income and prepaid expenses	143 114.80	6.5%	0.00	0.0%
Prepaid expenses TA	143 114.80		0.00	
Current Assets	2 214 428.86	100.0%	2 100 934.96	100.0%
Movable assets	0.00	0.0%	0.00	0.0%
iCAP 7600 ICP-OES Duo (analyzes equipment)	87 789.84		87 789.84	
Spectro Blue 138491	60 217.92		60 217.92	
Vibrating disk mill	22 109.83		22 109.83	
Value adjustments of tools and equipment	-170 117.59		-170 117.59	
Fixed assets	0.00	0.0%	-	0.0%
TOTAL ASSETS	2 214 428.86	100.0%	2 100 934.96	100.0%
Liabilities				
Trade accounts payable	140 050.25	6.3%	453 545.58	21.6%
Accounts payable to third parties	108 202.21		432 961.58	
Creditor FTA, value added tax	26 936.29		11 275.50	
Accounts payable KEZO	4 911.75		9 308.50	
Short-term interest-bearing liabilities	0.00	0.0%	0.00	0.0%
Value added / revenue taxes	0.00		0.00	
Deferred income	1 819 916.82	82.2%	1 352 067.07	64.4%
Accrued expenses and deferred income	254 070.94		100 099.80	
Deferred Projects	1 565 845.88		1 251 967.27	
Short-term liabilities	1 959 967.07	88.5%	1 805 612.65	85.9%
Endowment capital	100 000.00		100 000.00	
RESERVES				
Project reserves	195 322.31		189 044.33	
Annual result	-40 860.52		6 277.98	
Equity capital	254 461.79	11.5%	295 322.31	14.1%
TOTAL LIABILITIES	2 214 428.86	100.0%	2 100 934.96	100.0%



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An den Stiftungsrat der
Stiftung Zentrum für nachhaltige Abfall- und Ressourcennutzung ZAR, Hinwil

Brüttsellen, 08.04.2022

Bericht der Revisionsstelle zur Eingeschränkten Revision

Als Revisionsstelle haben wir die Jahresrechnung (Bilanz, Erfolgsrechnung und Anhang) der Stiftung Zentrum für nachhaltige Abfall- und Ressourcennutzung ZAR für das am 31.12.2021 abgeschlossene Geschäftsjahr geprüft. Die eingeschränkte Revision der Vorjahresangaben ist von einer anderen Revisionsstelle vorgenommen worden.

Für die Jahresrechnung ist der Stiftungsrat verantwortlich, während unsere Aufgabe darin besteht, diese zu prüfen. Wir bestätigen, dass wir die gesetzlichen Anforderungen hinsichtlich Zulassung und Unabhängigkeit erfüllen.

Unsere Revision erfolgte nach dem Schweizer Standard zur Eingeschränkten Revision. Danach ist diese Revision so zu planen und durchzuführen, dass wesentliche Fehlaussagen in der Jahresrechnung erkannt werden. Eine Eingeschränkte Revision umfasst hauptsächlich Befragungen und analytische Prüfungshandlungen sowie den Umständen angemessene Detailprüfungen der beim geprüften Unternehmen vorhandenen Unterlagen. Dagegen sind Prüfungen der betrieblichen Abläufe und des internen Kontrollsystems sowie Befragungen und weitere Prüfungshandlungen zur Aufdeckung deliktischer Handlungen oder anderer Gesetzesverstösse nicht Bestandteil dieser Revision.

Bei unserer Revision sind wir nicht auf Sachverhalte gestossen, aus denen wir schliessen müssten, dass die Jahresrechnung nicht dem Gesetz, der Stiftungsurkunde sowie den Reglementen entspricht.

baumgartner & wüst gmbh



Simon Wüst
Zugelassener Revisionsexperte
(Prüfungsleitung)



Ulrich Baumgartner
Zugelassener Revisionsexperte

Beilage

Jahresrechnung (Bilanz, Erfolgsrechnung und Anhang)



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