

**“ IF WE ARE SERIOUS ABOUT CREATING
A SUSTAINABLE SOCIETY, WE NEED TO
USE THE RAW MATERIALS WE ALREADY
HAVE, OVER AND OVER AGAIN”**

**WELCOME TO
THE CIRCULAR
ECONOMY**

**A WHOLE
NEW ATTITUDE
TOWARDS WASTE**

**RAGN-SELLS GROUP
SUSTAINABILITY REPORT 2023**

RAGN  SELLS

IMPORTANT NUMBERS



The year **2023** was the warmest year since global records began in 1850

10 Billion Challenge
launched during Climate Week NYC

Co-authored **5 key enablers for circularity**, published by the International Chamber of Commerce (ICC)



Over **2,500** employed in the Ragn-Sells Group

32 downstream suppliers and customers audited

5 incidents reported in the whistleblower channel



Pledged to by 2030 avoid **2 million tonnes CO₂e** caused by others through our circular solutions

HIGHLIGHTS

Roundtable discussions on circular construction

In 2023, Ragn-Sells invited the construction industry to a series of roundtable discussions. Insights from the discussions were summarised in a report, highlighting circular construction practices such as resource efficiency, innovation, and policy change.



“If the global economy becomes just ten percentage points more circular, we still have a very good chance of achieving the climate goals.”

Cecilia Zarbell, Brand and Communications Director at Ragn-Sells Group



COP28

During COP28 in Dubai, Ragn-Sells was both part of the Swedish and Estonian delegations. We had the opportunity to actively contribute to the dialogue on circular economy practices. In total, Ragn-Sells hosted ten sessions in three different arenas and participated in many more.

“The inclusion of circular economy as a solution in the final document at COP28 implies a fundamental milestone.”

Pär Larshans, Chief Sustainability Officer at Ragn-Sells Group

Ash2Salt

In the spring of 2023, Ragn-Sells inaugurated the world's first Ash2Salt facility for recycling commercial salts from fly ash. The plant can extract salts with a 90% lower climate footprint than traditional salt production methods.

“Besides the grand opening, we hosted a family day. It was heartwarming to see how proud many were to show the plant and their workplace to their families.”

Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden



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REALISING THE CIRCULAR
TRANSITION, HERE AND NOW



CASE: DESIGN THAT LEAVES
NOTHING OUTSIDE THE LOOPS



WASTE IS THE ONLY TRULY
SUSTAINABLE RESOURCE

ALIGNING OUR
BUSINESS WITH
THE PARIS AGREEMENT



THIS IS RAGN-SELLS



**“ WE ALL NEED TO
TAKE THE LEAP TOWARDS
CIRCULARITY, AND WE
NEED TO DO IT NOW”**



WORDS FROM THE CEO

Ragn-Sells wants to lead the transition to a circular economy. If we are serious about creating a sustainable society, we must use the resources we have already extracted, over and over again. This is why everything we do is about creating a whole new attitude towards waste.

Ragn-Sells' main contribution to a sustainable development is the same as our business strategy. To lead the transition to a circular economy. We do that by delivering circular solutions that the planet needs.

But the current view on waste stands in the way of a circular future.

In a circular economy, waste has to be treated as a source of sustainable resources. This requires extensive and systemic reforms. "What we today call waste, need to be considered as a source of raw materials."

Making the transition to a circular business model requires substantial investments. Short term, these investments will be a cost. But when you are playing the long game,

there is no conflict between sustainability and good business.

The state of the world is challenging, with several ongoing conflicts and people suffering. The past volatile years have been tough also for everyone working with raw materials. In times of active conflict, it is increasingly evident that crucial raw materials are becoming scarce.

Ragn-Sells is a living example that a circular business model helps reduce vulnerability in an unstable environment. Being both a buyer and supplier of resources enables flexibility, reduces dependency on a few separate value chains or raw materials, and creates resilience in times of uncertainty.

But more of us need to push this development.

Increasing resilience through a circular business model should be an integral part of any business' strategic sustainability work. The more actors who demand recycled raw materials, the faster we will transfer into a sustainable future.

The past year has also seen an increased focus on sustainability regulation. We warmly welcome this development. It is a necessary shift that will boost financial flows in a sustainable direction.

At Ragn-Sells, we keep evolving the circular agenda in innovative ways. Especially by sharing knowledge about the possibilities with waste. One example from 2023 is our

campaign **What a waste!**. This is our way of using our thought leadership in a playful and relatable way to highlight the opportunities with waste as a resource.

I would like to encourage all other business leaders to join us. The future is sustainable business. The future is circular business.

We all need to take the leap towards circularity, and we need to do it now.

Lars Lindén

CEO of Ragn-Sells Group
Stockholm, Sweden, April 2024

LEADING THE TRANSFORMATION TO CIRCULARITY

Ragn-Sells is a family owned, third generation company, originating from 1881. Every generation since, has kept a vision of a sustainable society at the heart of developing the company.

The Ragn-Sells group is a privately held corporate group, operating companies in four countries. Since 1966, we have been involved in waste management, environmen-

tal services, and recycling. We collect, treat, detoxify, and recycle waste and residual products from businesses, organisations, and households.

Over the years, Ragn-Sells has transformed from being a traditional waste management company to a company developing advanced recycling methods and driving the transition to a circular economy. →



Group facts 2023

2,541
Employees



100
Sites

Sweden / Norway / Denmark / Estonia
Markets

8,530 MSEK
Sales

5.6 million tonnes
Material treated

THE RATIONAL FOR CIRCULARITY

According to the UN, the extraction and processing of natural resources account for 50% of climate change, 90% of biodiversity loss, and 90% of the threat to access to water.

Creating new circular material flows is the key enabler to reverse this, and bring back planetary stability.

Ragn-Sells' three business areas – **Recycling**, **Treatment & Detox**, and **New Value Chains**, are all based on a circular economy rational.

LEADING THE TRANSFORMATION

Ragn-Sells' vision, mission, and brand promise drive our ambition to lead the transformation towards a circular economy.

Vision

We want to be living proof that caring for the earth and business go hand in hand.

Mission

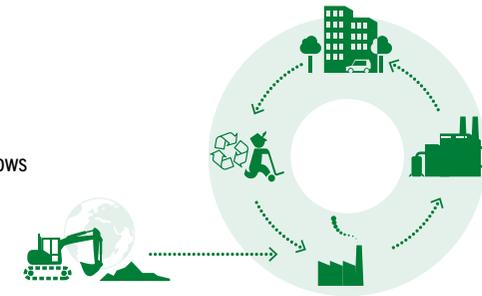
Ragn-Sells wants to lead the transformation towards a circular society, where we care for the environment, counter climate change, and help communities prosper.

Brand promise

We work every day to bring more resources back into the production cycle in a secure way. We aim to be at the forefront of circular solutions that make it easy for our customers to help create a sustainable and safe society.

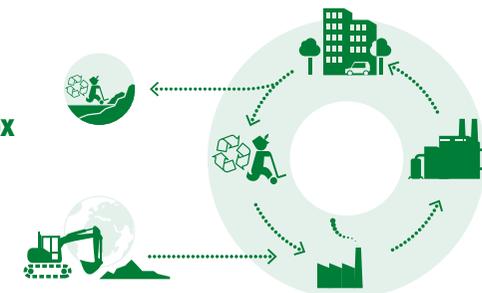
Recycling

Securing control of the flows of Commodity materials



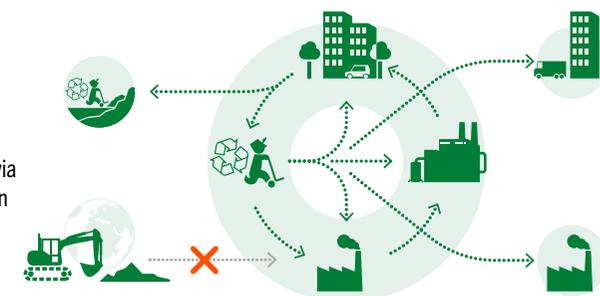
Treatment & Detox

Solving the 'Tricky waste problems'



New Value Chains

Establish Joint Ventures via cross-segment integration



WELCOME TO THE CIRCULAR ECONOMY

“ IF THE GLOBAL ECONOMY
BECOMES JUST TEN PERCENTAGE
POINTS MORE CIRCULAR, WE STILL
HAVE A VERY GOOD CHANCE OF
ACHIEVING THE CLIMATE GOALS”

WHAT A WASTE!

We work every day to bring more resources back into the production cycle in a secure way. The campaign What a waste! is one of our ways to create awareness and acceptance on a new perspective on waste. Waste is the solution, not the problem.

For hundreds of years, mankind has been mining new raw materials like there's no tomorrow. We produce food, make products, build houses and roads. And once what we have made has served its purpose, we dump it as waste. And then we start all over again. What a waste.

The way we extract and process raw materials is responsible for half of the world's climate emissions, as well as 90% of biodiversity loss and 90% of water stress. The recycling rate is falling. Not because we are recycling less, but because we constantly demand more from nature. Since the turn of the millennium alone, our extraction of virgin raw materials has increased by 70%.

— Soon earth's resources will be gone. Depressing? You bet. But the truth is, the solution is right in front of our eyes. Namely our waste. All we need to do is change the way we look at it, says Cecilia Zarbell, Brand and Communications Director at Ragn-Sells Group.

With today's legislation it is cheaper to mine new raw materials than to use existing technology to recycle and reuse everything we have already extracted. What a waste, right? We think so too.

That is why we love everything from construction waste and trash to waste oil. Because we understand what a treasure chest they are, and because we have many keys to unlock it. We can turn fish poop into renewable energy and ash into metals and salts. But we want to do more.

If the global economy becomes just ten percentage points more circular, we still have a very good chance of achieving the climate goals.

So, if you ask us, our attitude should be, out with the new – in with the old. ■



A brand campaign for waste? Of course!

The campaign What a waste! puts the resources at the centre by highlighting the gold mine of important raw materials available in the waste streams, that needs to be recycled and reused, over, and over again. What a waste! describes our business in a playful way, aiming to generate an aha-experience.

The campaign was launched in October 2023. The ambition is to continue to develop and

leverage it as our group-common brand umbrella for years to come.

A central part of the campaign is a video in social media.

The campaign was developed together with Mattias Johansson, Art director at Brigad, and freelance copywriter Daniela von Polgar.

WASTE IS THE ONLY TRULY SUSTAINABLE RESOURCE

The ever increasing extraction of virgin raw materials is responsible for half of all climate emissions, 90% of biodiversity loss, and 90% of water scarcity in the world, according to the [UN](#). The best way to counter all three challenges is to circulate more of the raw materials that we have already produced.

– If we are serious about creating a sustainable society, we have to start treating waste for what it really is; the only truly sustainable source for the things we need, says Anders Kihl, Chief Strategy Officer and R&D Director at Ragn-Sells Group.

The general ambition connected to waste is to minimise it. This will not lead to increased circularity. In fact, it actively works against the transition to a circular economy. Instead, the main ambition must be to reduce the unsustainable extraction of virgin materials, and to treat waste as a source of sustainable raw materials.

But going from a linear to a circular economy is not done in a heartbeat. It requires long-term investments and systematic legislative

changes pushing the demand for recycled materials.

Ragn-Sells prioritises projects that both make a difference today and invest in the future.

– More and more people have joined the train towards a circular future. There are still some knowledge gaps in what is actually required for this to happen, but we are headed in the right direction, says Anders.

One example where a new attitude towards waste can be a game changer for a sustainable future is the increased demand for so-called critical raw materials. This trend is partly driven by the shift towards renewable energy sources, electrification, and digitalisation, all necessary to counter climate change.

Currently, these materials are to a great extent sourced from virgin resources and from markets connected with geopolitical risks. The EU has responded to this challenge, for example by promoting recycling of critical raw materials. The list of what is considered a critical raw material is constantly growing.

– With wars raging and geopolitical risks increasing, we see additional drivers to the shift to circularity. Security, self-sufficiency, and supply chain resilience are becoming increasingly important. There are more reasons now than ever to expand our possibilities to source raw materials in a sustainable way, concludes Anders Kihl. ■



EU's Critical Raw Materials

Since 2011, the European Commission has produced a list of critical raw materials (CRM) every three years. The list covers substances that are deemed to be of particular importance to the EU economy, but whose supply is threatened or uncertain.

For example, the supply can be determined by geopolitical factors, as in the case of rare earth metals where China controls 98% of the world's known deposits. The list includes substances such as cobalt, copper, magnesium, phosphate rock, and phosphorus.

ADVOCATING FOR A CIRCULAR TOMORROW

A circular future requires a systemic legislative shift where waste is seen and used as a sustainable resource. Businesses that share knowledge about the opportunities with a circular economy, help decision-makers eliminate unnecessary regulatory barriers standing in the way of the transition.

– If we are serious about the transition to a circular economy, we need a systemic shift in legislation. Not just minor changes to a patchwork of legislation. We need to move from seeing waste as a problem we need to eliminate, towards being a sustainable source of raw materials, says Susanna Lind, Head of Public Affairs and Government Relations Sweden.

One of the major challenges in a large-scale shift to a circular economy is the legislative approach to waste. Currently, materials originating from waste often fall into a sepa-

rate legislative category that significantly limits the possibility to use waste as a source of raw materials.

The past years has introduced a lot of new EU legislation concerning actors in the recycling business, including regulation on the collection of packaging and bio waste. The recycling goals on the EU level are very ambitious and have been difficult for several countries to live up to. Sweden has tackled this challenge by hasty national implementations leading to an increased administrative burden and circumstances that hinders the

much-needed implementation of circular and sustainable solutions.

– We very much welcome increased regulation on waste management. At the same time, we see a lot of potential in including the private sector more in the legislative process. This could have helped making principles on circularity a priority for national implementation measures, says Susanna.

During 2023, the volatile and unpredictable world has created an increased focus on vulnerabilities, such as ensuring access to resources even in times of high uncertainty.

Ragn-Sells has noticed an increased interest from politicians on how the private sector can contribute to reducing Sweden's vulnerability, including access to critical nutrients such as phosphorus.

– Our strategy for advocacy is to focus on presenting concrete solutions to society's challenges. We find this a much more effective way to make decision-makers understand challenges, opportunities, and needs. Rather than pointing out problems and expect politicians to solve them for us, says Susanna Lind. ■



PARTNERSHIPS FOR A CIRCULAR FUTURE

A circular economy is dependent on collaboration. Ragn-Sells works actively to create long-term attitude changes towards a more circular economy where waste is treated as a sustainable source of raw materials. But we cannot do it on our own. Only strong partnerships can create sustainable value chains.

— In a linear economy, we are part of an industry that takes waste from several supply chains. But in a circular economy, there is no recycling industry, there are different material flows that will need collaboration and partnerships to keep the resource in circulation. When we build new value chains, we do it in partnerships, says Pär Larshans, Chief Sustainability Officer and Public Affairs Director at Ragn-Sells Group.

Ragn-Sells' way of approaching sustainability is to identify trends and global challenges where our solutions can contribute to solving a societal problem. That is how we grow and keep developing our business. And for changing entire value chains, we need partners.

— Currently, the private sector is pushing the development towards a circular economy.

Policies are way behind with a narrative that still focuses on minimising waste, instead of seeing waste as a sustainable source of raw materials, says Pär.

One example of private sector partnerships leading the way, is the cooperation in the International Chamber of Commerce, the ICC. In 2023, the ICC published the report "Key enablers for a circular economy", with main recommendations for the transition towards a circular economy, which Ragn-Sells contributed greatly to.

— Two of the pronounced wins for circularity in 2023 are the increased focus on planetary boundaries in policy development, and that the final text from COP28 introduced circularity as an important tool to reduce climate impact. The push from the private sector,



such as the ICC report, most likely had a great impact on this outcome, continues Pär.

One major global sustainability challenge is to make the food value chain sustainable. The current food value chain causes 25% of global emissions and effects several of the planetary boundaries in a negative way. To feed a growing planet in a sustainable way is a massive challenge. That is why we focus on nutrients and circular solutions for phosphorus, nitrogen, and potassium. Long-term, our mission is to ensure that people have food and housing within the planetary boundaries.

— During 2023, we initiated a partnership for sustainable agriculture production with Friesen Group of Companies. It has the ambition to enable us to sell recycled phos-

phorus as a circular nutrient to Canada. It is one excellent example of how partnerships elevate our innovative technologies into solving a global challenge, concludes Pär.

In 2023, Ragn-Sells also established a team in Brussels with a physical office. This will help enormously with strengthening the necessary alliances and our ability to influence relevant legislative processes, rules, and regulations in support of circular material flows.

— A circular economy is about collaboration. If you try to win by yourself, you will definitely lose, ends Pär Larshans. ■

BUILDING OUR PEOPLE

Promoting
diversity is key

RAGN SELLS
En del av kretsloppet

“ IN EVERYTHING WE DO WE STRIVE TO CREATE VALUE. FOR PEOPLE, NATURE, AND THE BUSINESS”

DIVERSITY AS A TOOL FOR NEW THINKING

To keep developing new circular solutions for a sustainable future, promoting a diverse organisation is key. Investing in people and promoting an inclusive working environment enable the development of new skills and working methods needed in a circular economy.

“ENSURING DIVERSITY IN BACKGROUNDS, EXPERIENCES, SKILLS AND THOUGHTS IS THE BEST TOOL WE HAVE TO ACHIEVE OUR SUSTAINABILITY GOALS WHILE DEVELOPING THE BUSINESS.”

Susanne Schumann, Chief Human Resources Officer at Ragn-Sells Group

– In order to drive the transition into a circular economy and contribute to a sustainable society, we need to constantly devise new circular value chains. Diversity is a tool for new thinking, and indispensable for innovation, says Susanne Schumann, Chief Human Resources Officer at Ragn-Sells Group.

In every aspect of our business, from planning climate efficient transports, to developing new value chains where waste replaces virgin resources, it is necessary to consider what competences and perspectives are needed in that specific context. This makes the promotion of diversity business crucial.

– Ensuring diversity in backgrounds, experiences, skills and thoughts is the best tool we have to achieve our sustainability goals while developing the business, says Susanne.

A strategy to improve diversity has to be based on the challenges the organisation faces and provide clear commitments to which the organisation can be held accountable.

Ragn-Sells has well-defined goals for gender equal representation throughout the organi-

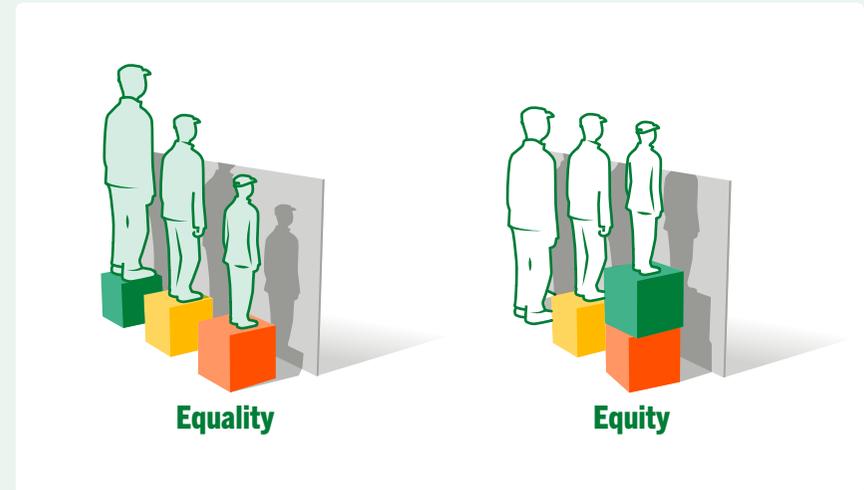
sation, especially for leadership positions. But promoting diversity is about so much more than gender equality. Building an inclusive culture requires attracting and retaining people from different backgrounds and with different experiences.

– As a male-dominated company in a male-dominated industry, gender equality has been a priority for our diversity ambitions. Now we are expanding our view and want to focus on diversity and inclusion in a broader sense. We consider it a method to continuously improve both our organisation and our business offer. If we want to continue to grow and develop, diversity is key, says Susanne.

Prior to all big business decisions, including recruitment or appointing a spokesperson, it

is crucial to consider what skills and backgrounds to highlight and include in that specific context. Increasing awareness of the risks connected to unconscious bias and micro-aggressions is a business-wide priority in order for these efforts to be successful.

– We still have work cut out for us to integrate the thinking that diversity is business critical into the entire organisation. But I am hopeful and confident. Increasing our focus on diversity will help us achieve our promise to be living proof that caring for the earth and good business go hand in hand, for another 150 years, concludes Susanne Schumann. ■



SHAPING A CULTURE OF SAFETY

Accelerating the circular transition has to be done in a safe way. At Ragn-Sells, we are committed to creating a culture of workplace safety by raising risk awareness, encouraging incident reporting, and building trust. Two tragic events in 2023 reminded us that we still have work to do.

“WE WANT TO BE THE INDUSTRY LEADER NOT ONLY IN CIRCULAR INNOVATION, BUT ALSO IN WORK-PLACE SAFETY.”

Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden

Safety first is a key principle that permeates every aspect of our business. To achieve our goal of becoming the industry leader in workplace safety by 2030, we are running a number of group-wide initiatives to shape a strong safety culture. These include the introduction of a new reporting tool, measuring performance against a wide range of metrics, and arranging the annual Safety Week for all employees.

– Everything we do to promote safety in the workplace helps to raise awareness and understanding of the importance of this issue. We see that our increased focus on safety leads to more incidents being reported, which is an invaluable tool for monitoring our progress and gaining insight into our safety work, says Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden.

Leadership plays a crucial role in our safety work. For employees to feel supported in reporting risks or incidents, our management must promote open communication, mutual trust, and shared participation as a company norm. The insights of our employees are essential in identifying risks and determining preventive or corrective measures.

– While workplace safety is heavily regulated by legislation and is ultimately a management responsibility, shared participation is an integral part of Ragn-Sells' safety culture. We encourage all our employees to help us identify the issues we need to work on, says Mikael.

In 2023, two fatal accidents occurred in our operations. In the midst of grief and crisis response, the events were a tragic reminder of the importance of proactive and systematic safety management. Both accidents have been thoroughly investigated to understand how they arose and to assess what needs to be done to prevent future accidents.

– These accidents should never have happened. They were a painful reminder that we

still have work to do to achieve our goal – a business where no one gets hurt on the job, says Mikael.

As well as protecting the lives and health of current employees, a strong safety culture is also necessary when recruiting new talent.

– Attracting the right people is fundamental to our competitiveness and our contribution to the circular economy. That is why we want to be the industry leader not only in circular innovation, but also in workplace safety, says Mikael Hedström. ■



BUILDING THE PLANET

Increased
transparency is
fundamental

“BY SIMPLY DOUBLING THE
CIRCULAR SHARE OF PRODUCTION,
WE CAN SIGNIFICANTLY LOWER
THE WORLD’S CLIMATE EMISSIONS”

ALIGNING OUR BUSINESS WITH THE PARIS AGREEMENT

The climate is changing rapidly. There is no time to waste in reducing emissions globally. In addition to transition from fossil fuels to renewable energy, we have to start using the materials we already have as often as possible. This applies on a societal, as well as on a business level.

– Through our recycling methods and circular solutions, we enable material flows to re-enter into society. At the same time, our safe landfills detoxify society by managing waste where there is not yet a technical solution available to return the material into use again, says Miranda Jensen, Head of Group Function HSEQ at Ragn-Sells Group.

The production and consumption of goods, together with the extraction and transformation of virgin resources make up half of the earth's climate challenge. In order to meet our climate goals and keep global warming below 1.5 degrees Celsius, we need to prioritise waste and resource management much higher.

Our recipe to meet this challenge, while creating sustainable growth, is to enable and promote circular material flows in society. Transitioning into a circular economy, where materials are used over and over again, is the best way to supply goods and services without adding to the climate challenge.

One of Ragn-Sells' strengths is the combination of deep knowhow on how to operate facilities that are subject to environmental permits, and the knowledge of materials and their various recycling capacities.

Although Ragn-Sells can play an important part in this transition, there are more pieces to the puzzle.

“Increased transparency is fundamental. We are in a unique position to help our partners both upstream and downstream to reduce their emissions”

Miranda Jensen,
Head of Group Function HSEQ
at Ragn-Sells Group



– To create flows that are truly circular, we need better insight into all material value chains. This means increased transparency is fundamental. In our capacity as a recycler, detoxifier, and producer of recycled raw materials, we are in a unique position to help our partners both upstream and downstream to reduce their emissions, says Miranda.

The implementation of the EU directive Corporate Sustainability Reporting Directive (CSRD), with increased transparency requirements, has started its implementation process and it will be helpful in speeding up the sustainability agenda at a business level. Not the least by revaluing sustainability

performance and making it more equal to economic performance.

– One additional strategic tool to reduce emissions from business operations could be to create a budget for climate emissions. Breaking the CO₂e budget must be as costly as not reaching other business goals. This could be done through, for example, incentives connected to reducing emissions, says Miranda Jensen. ■

CONDUCTING BUSINESS WITHIN PLANETARY BOUNDARIES

The ever-increasing extraction and processing of natural resources is putting increasing pressure on our planet. Climate change, biodiversity loss, and access to water are some of the main consequences. Circularity is a key enabler to protect planetary stability.

According to the UN, the ever-increasing extraction, processing and transformation of virgin raw materials is responsible for around 50% of global climate emissions, 90% of biodiversity loss, and 90% of increasing water scarcity. This is putting a lot of pressure on our planet.

To assess the impact of human activities, researchers frequently turn to the planetary boundaries' framework. The framework identifies nine processes that are critical for a

stable earth system and defines safe boundaries for human impacts. The most recent assessment of the planetary boundaries concluded that six of the nine limits have been transgressed. This threatens to cause extreme environmental changes that put humanity at risk.

In order to reverse this trend and protect the stability of our planet, we need to move from linear to circular material flows. In practice, this means reducing the extraction, process-

ing, and transformation of virgin raw materials in favour of reusing or recycling the resources we already have.

Today, only 7.2% of the global economy is considered circular. By simply doubling the circular share of production, we can significantly lower the world's climate emissions while reducing our impact on biodiversity and water supplies.

To support this shift, Ragn-Sells is committed to leading the transformation to a circular economy and bringing more resources back into the production cycle. We do this by developing advanced circular solutions that continually push the boundaries of what can be recycled. We also act as a strong voice for the circular transition by sharing our knowledge and influencing policy makers at the highest political level.



Ragn-Sells works actively with the 2030 Agenda and the Sustainable Development Goals. We want the world to stand by the original climate target of the Paris Agreement – a maximum of 1.5 degrees of global warming compared to the pre-industrial era – and we remain convinced that it can be achieved.

With our 2030 Pledge, we aim to help protect the planetary conditions that have supported life on earth for millennia.

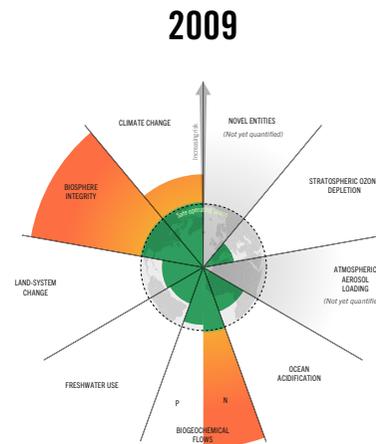
Ragn-Sells’ 2030 Pledge:

To counter climate emissions, bio-diversity loss, and water scarcity, Ragn-Sells pledges to:

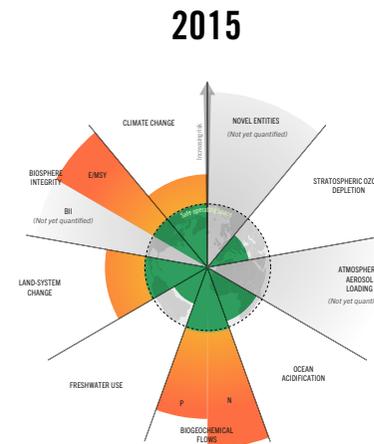
- Strengthen our efforts to recycle materials and bring them safely back to the market.
- Introduce more circular solutions that avoid CO₂e emissions in multiple value chains.
- Avoid using fossil fuels in our own operations.

Ragn-Sells’ Goals 2030:

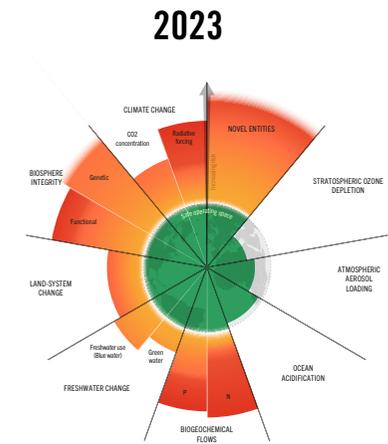
- Cut climate emissions (CO₂e) from our own operations with 50% compared to 2019.
- Contribute with solutions that ensure that by 2030 at least 2 million tonnes of emissions (CO₂e) per year are avoided. ■



7 boundaries assessed, 3 crossed



7 boundaries assessed, 4 crossed



9 boundaries assessed, 6 crossed

The Planetary Boundaries

The planetary boundaries are a framework for understanding and assessing the impacts of human activities on the planet. The framework identifies nine processes that are critical for a stable earth system and defines safe limits for human impact. This means that within the boundaries, humanity can continue to thrive, but beyond these limits, we risk irreversible environmental change.

The nine planetary boundaries are: climate change, biosphere integrity, land-system change, freshwater use, biogeochemical flows, ocean acidification, atmospheric aerosol pollution, stratospheric ozone depletion, and release of novel entities.

The most recent assessment of the planetary boundaries, conducted in September 2023, shows that six of the nine limits have been crossed.

The planetary boundaries framework was first proposed in 2009 by Swedish professor Johan Rockström and a group of 28 internationally renowned scientists.

Read more: [Earth beyond six of nine planetary boundaries | Science Advances](#)

CONSTRUCTING A CIRCULAR FUTURE STARTS AT THE DRAWING TABLE

By moving from linear to circular material flows, the construction sector can reduce its significant impact on climate, biodiversity, and water supply. To bring the industry together behind this shift, Ragn-Sells aims to act as a platform for collaboration, innovation, and knowledge exchange.

CASE: COLLABORATING TO MAKE OUR CITIES MORE CIRCULAR

How can actors from across the construction sector work together to make our cities more circular? This was the main question when Ragn-Sells invited stakeholders to a series of roundtable discussions in 2023.

Today, the building sector's reliance on the extraction of virgin raw materials makes it one of the major contributors to climate emissions, biodiversity loss, and water stress. At the same time, the industry is facing increasing demand due to population growth and urbanisation.

To meet this challenge, the industry needs to move from linear to circular material flows.

This requires everyone to work together to integrate life-cycle thinking into all stages of the construction process, from design to demolition.

With the aim of enabling new collaborations, the roundtables brought together experts from all parts of the industry, many of whom had never met before. Insights from the discussions were summarised in the report [How Circular Construction Builds a Sustainable Society](#), highlighting circular construction practices such as resource efficiency, innovation, and policy change.



CASE: DESIGN THAT LEAVES NOTHING OUTSIDE THE LOOPS

It takes innovation and creativity to ensure that no valuable resources are wasted. When phosphorus is extracted from sewage sludge ash in the Ash2Phos process, a red silica sand is created as a co-product. The sand is rich in iron and holds significant potential for various applications in materials.

To investigate these possibilities, our innovation company EasyMining invited the design studio Form Us With Love to explore how the sand can be integrated into new circular products.

Focusing on architectural elements, the team has experimented with everything from paint and sound absorbers to terrazzo bricks and furniture. At the COP28 climate conference in Dubai in 2023, EasyMining unveiled two of these products: a brownish mud-paint and a sound-absorbing panel.

Sand is the world's second most consumed material, but as virgin sand is a finite resource, we are facing a sand shortage crisis. By replacing virgin sand with recycled alternatives, we can avoid resource scarcity while creating more sustainable products. ■



PARTNERS IN A CIRCULAR CHEMICAL INDUSTRY

What sustainability challenges will the chemical industry face in the coming years? What is needed to speed up the transition to circular solutions? Are there still notions that recycled materials are not as good as virgin resources?

These were some of the questions raised in a panel discussion on more circular solutions in the chemical industry between **Christian Lundell**, CEO at Arom-dekor Kemi, **Jonas Larsson**, European Product Manager at Brenntag, **Lars Rosell**, Co-founder and partner of Vilokan Group, and **Erik Gustafsson**, Business Project Manager at Ragn-Sells Sweden.

The chemical industry is still fossil-heavy, and a significant amount of the oil and gas pumped out of the earth is used as raw materials for the production of chemical products. Most of what we see around us has its origins

in the chemical industry, everything from cleaning products and lubricants to solar cells, bicycle tires, or kitchen utensils.

“The need to transition to a more circular chemical industry is extreme. Otherwise, we will never be able to stay within the planetary boundaries,” says Lars Rosell, Co-founder and partner of the Vilokan Group.

One of the obstacles to increasing use of recycled raw materials in the chemical industry is pricing. However, reducing dependence on fossil fuels requires a joint effort. To improve the economics of recycled materials, chemical

companies could invest in technologies, while customers can choose environmentally friendly solutions that may have a higher cost but offer a long-term value.

“In the past, we noticed higher reluctance to choose recycled products, but this has decreased over time,” says Christian Lundell, CEO at Arom-dekor Kemi.

Virgin raw materials are still much cheaper than the sustainable alternatives and it can sometimes be difficult to convince a customer of the benefits of circular options when the cost increases.

“If the price and quality are on par with virgin resources, it is not at all difficult to sell the recycled ones. Carbon dioxide emissions need to become a currency, a cost that is truly visible,” says Jonas Larsson, Product Manager at Brenntag.

Increased demand on sustainability reporting is one way to make it clearer what the material production with virgin raw materials actually cost. That would be one step towards making it easier for customers and consumers to do the right thing.



“Next-level sustainability reporting will make it more clear what impact a certain material choice has and that will provide a reasonable playing field for recycled materials,” says Erik Gustafsson, Business Project Manager at Ragn-Sells.

But it is not just costs that stand in the way of the development towards more circular solutions in the chemical industry. Legislation is not keeping up. Some industries have strict requirements for traceability, which makes it more difficult to use recycled raw materials. These are often collected from many different sources, which breaks traceability.

“To some extent, legislation and requirements need to be updated, but we also need

increased transparency in the industry where we share data and information to help customers choose more sustainable products,” says Jonas Larsson.

Another important aspect of increasing the possibilities of recycled products is correct sorting. Customers tend to mix several materials in one tank which makes it impossible to recycle. As an example, engine oil and brake fluid must be collected separately.

“If we can create better opportunities to keep substances separated, we will increase traceability and enable more recycling,” says Lars Rosell.

Partnership is a necessary tool for transitioning to a circular economy. Collaboration,

between different stakeholders throughout the value chain, make it possible to adapt the product or process to match what the users expects.

“For us to succeed, the most important thing is knowledge and a network. Collaboration with Ragn-Sells makes it possible to find customers with waste streams. Collaboration with Brenntag introduces us to customers that prioritise recycled materials,” says Christian Lundell.

Ragn-Sells and Vilokan are jointly building a facility for recycling solvents outside Stockholm. The plant will be operational in autumn 2024 and will have the capacity to recycle 20,000 tonnes of solvents per year.

“When we are about to take this step to advanced process technology, Vilokan has the right expertise for it. And when we are about to launch in a market that we are not familiar with, the collaboration with Brenntag is extremely valuable,” says Erik Gustafsson.

In the end, one of the most important changes that needs to be done is to keep a broad perspective in the sustainability work.

“We are all part of a system where everything is connected. As organisations, we need to see our impact as a part of that larger system. If everyone thinks like that, the system will probably improve,” Jonas Larsson concludes.

Christian Lundell,
CEO at Arom-dekor Kemi



Jonas Larsson,
European Product Manager at Brenntag



Lars Rosell,
Co-founder and partner of Vilokan Group



Erik Gustafsson,
Business Project Manager at Ragn-Sells Sweden



BUILDING LONG-TERM PROSPERITY

Promote waste as the primary source of sustainable raw materials

“THE ONLY WAY TO LEAD THE TRANSITION IS TO INVEST SUCCESSFULLY”

GLOBAL SECURITY REQUIRES A NEW VIEW ON WASTE

A world where we use critical raw materials over and over again, instead of constantly chasing new ones, is a more secure world. For this to happen, a completely new view on waste must shape policy, turning waste into a truly viable source of sustainable raw materials.

Looking back on 2023, it is clear how war and conflicts have dominated the news. This deeply concerning development forces us to reflect on our role in conflicts around the world. Access to raw materials is a key driver of armed conflicts. Studies show that natural resources have been linked to at least 40% of intrastate conflicts over the past 60 years. There are many indications that the race for strategically important resources will only intensify.

The development is driven not least by new technologies aimed at mitigating climate change. The expansion of renewable energy

sources, electrification, and digitalisation all require critical raw materials such as lithium, cobalt, and rare earth metals. As the world's population grows, so does our need for agricultural nutrients including phosphorus, nitrogen, and potassium.

Half of the world's climate emissions are caused by the extraction of virgin raw materials. At the same time, the EU's critical raw materials supply relies on imports from countries such as Russia, China, and Congo-Kinshasa, despite everything we know about conflicts, human rights violations, and Putin's war in Ukraine.

If we are serious about creating a safe and sustainable world, we have to start using the materials we already have, over and over again. However, outdated legislation is currently hampering the transition to a more circular and secure society.

There are many examples. We have the technology to produce phosphorus from sewage sludge, but it cannot be legally used in organic farming or animal feed in the EU. Bottom ash from waste-to-energy plants contains significant amounts of copper, but tax rules mean that extracting all of it comes with a net loss. And so on.

To change the situation, we need a profound paradigm shift in our view on waste. Instead of focusing on reducing waste, policy should promote waste as the primary source of sustainable raw materials.

At Ragn-Sells, we are committed to making this paradigm shift a reality. ■

“ INSTEAD OF FOCUSING ON REDUCING WASTE, POLICY SHOULD PROMOTE WASTE AS THE PRIMARY SOURCE OF SUSTAINABLE RAW MATERIALS.”

Lars Lindén, CEO of Ragn-Sells Group

CIRCULARITY REQUIRES SUSTAINABLE FINANCIAL FLOWS

The transition into a circular economy requires both new business models and sustainable financial flows. Ensuring that waste becomes a source of sustainable raw materials, comes with huge responsible investments.

– If we want to drive the development of new circular solutions, build plants that facilitate new technologies, and create industrial symbiosis, we have to make large and responsible investments. These investments will allow us to reintroduce as much resources as possible to society, says Madeleine Ljunggren, Chief Financial Officer at Ragn-Sells Group.

Sustainable financial flows play an important role in making Ragn-Sells' investments consistent with a pathway towards lower emissions and climate resilient development.

A priority for Ragn-Sells is to increase awareness among all stakeholders, not the least

investors, of the risks of a linear economy, the massive benefits of a circular economy, and the necessary actions and investments for a circular transition. Even if costs may increase short-term, such investments are necessary for a long-term sustainable future.

– Development and investments on this journey will for sure come with challenges, but we all have to take a few chances in the transition towards a sustainable future. Even if we see increased ambitions on circular thinking in the society today, the pace varies. We want to lead this transition and place more circular solutions on the market, says Madeleine.

Sustainable finance and ESG

Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions. Sustainable finance is a necessary part of accelerating the transition towards a circular economy where waste is a natural source for sustainable raw materials.



The past years have seen an increase in EU-regulations connected to sustainable investment, with the purpose of steering financial flows in a truly sustainable direction. Regulations such as the EU-taxonomy and the new directive on sustainability reporting, CSRD, is driving a development where sustainability ambitions are increasingly seen as a deciding factor for business investments.

– We welcome that sustainability data is approaching equal status with financial information. Integrating sustainability reporting into annual reporting will push for a change in every step of the lifecycle of products, says Madeleine.

During 2023, it has become increasingly evident that a volatile world affects us all, not the least through increased insecurity and unpredictability. Ragn-Sells' business strategy, to lead the transition to a circular economy, is based on product diversification, solid finances, risk awareness, and careful planning. It allows robustness, resilience, and long-term profitability.

– The only way to lead the transition is to invest successfully. To secure a high success rate, we will continue developing our risk assessments, and add relevant risk factors to our major financial decisions, says Madeleine Ljunggren.

Ragn-Sells Recycling Sweden

INTENSIFIED CUSTOMER RELATIONS AND NEW SOLUTIONS

Recycling is at the heart of a circular economy. By collecting materials that no longer has a use in their current form, and transforming them into a useable resource, we accelerate the transformation to a sustainable society.

“REPLACING THE USE OF VIRGIN MATERIALS WITH RECYCLED ALTERNATIVES IS ONE OF THE BEST WAYS TO SAVE THE PLANET.”

Magnus Uvhagen, CEO of Ragn-Sells Recycling Sweden

Collecting materials, currently classified as waste, and finding circular solutions for them to return to society as a valuable resource, is at the very heart of Ragn-Sells' business strategy.

The use of virgin materials in production is responsible for about half of all climate change globally. Meanwhile the use of recycled materials in production is only about 7%. By simply doubling the circular share of the global economy, we are well on our way to tackle climate change.

– We are starting to see an increase in actual demand for circular solutions. More actors have moved from just talking about the importance of a circular economy to actually act and make business decisions towards a

Did you know that only 7.2% of the global economy is circular, meaning that it consists of materials that have already been used, replacing virgin materials.

Source: The Circularity Gap Report 2023



Sweden

Established	1966
Number of sites	56
Number of employees	1,666
Turnover (ext)	KSEK 5,624,000



circular future. We have to start seeing raw materials as a resource regardless of their origin, says Magnus Uvhagen, CEO of Ragn-Sells Recycling Sweden.

One of the biggest problems for the transition to a circular economy is the limitations connected to when certain materials are legally classified as waste. This can really limit the possibility to transform materials into a valuable and sustainable resource.

– I am especially proud of our decision to keep developing our business, despite the

incentives to slow down in a recession economy. Instead of taking a step back and focusing on cutting costs, we intensified customer relations and developed new integrated recycling solutions. This proved to be highly successful, and we have managed to increase the customer benefits and securing a healthy profit enabling us to continue to develop and innovate, says Magnus Uvhagen.

In 2023, Ragn-Sells opened the world's first Ash2Salt facility for the recovery of valuable raw materials from fly ash on a large scale.

Location: Upplands-Bro, Sweden

Capacity: Up to 150,000 tonnes of fly ash per year



Sweden

Established	1966
Number of sites	56
Number of employees	1,666
Turnover (ext)	KSEK 5,624,000

Ragn-Sells Treatment & Detox in Sweden

REALISING THE CIRCULAR TRANSITION, HERE AND NOW

Taking care of unclean and hazardous materials, Ragn-Sells Treatment & Detox serves as the “kidney” of society. By continuously pushing the boundaries of what can be recycled, we are working to make the circular transition a reality.

“ WE NEED TO MAKE IT EASIER TO REPLACE VIRGIN MATERIALS WITH THE RESOURCES WE ALREADY HAVE.”

Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden

In the spring of 2023, Ragn-Sells inaugurated the world's first Ash2Salt facility for recycling commercial salts from fly ash from waste incineration. The plant can extract salts with a 90% lower climate footprint than traditional salt production methods.

– Besides the grand opening, we hosted a family day where our co-workers could bring

their loved ones to visit the plant. It was heartwarming to see how proud many were to show the plant and their workplace to their families, says Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden.

Treatment & Detox in Sweden also operates several other treatment facilities where waste, for which there is not yet any detoxification solution, is kept in secure landfills. These serve as material banks for future innovations.

Looking ahead, one of the major sustainability challenges facing Ragn-Sells and society at large is PFAS, a group of highly persistent and toxic chemical compounds. Although

PFAS are known to be hazardous for humans and the environment, they are widely used in everything from cleaning and care products to cookware.

– Today, PFAS are everywhere in society and constitute a huge environmental debt. We are constantly looking for better ways to remove them, but we are in the wrong part of the value chain. To address the problem, we need to stop the inflow by banning all non-essential uses of PFAS, says Mikael.

The Treatment & Detox team is working to drive the necessary political change at the highest level. In 2023, Mikael represented Ragn-Sells at the United Nations High-Level



Political Forum in New York, sharing the group's knowledge on circular solutions.

– The EU reporting directive will hopefully contribute to increased transparency and comparability, but to really tackle the problem of waste crime, we need stronger and more competent supervision from the authorities, says Mikael Hedström. ■

MARKET

Ragn-Sells in Denmark

WALKING THE TALK FOR THE CIRCULAR TRANSITION

In Denmark, Ragn-Sells strives to be a strong voice for the transition from a linear to a circular economy. To make sure that we walk the talk, we work every day to find better ways to use the resources we already have.

“ WE WORK EVERY SINGLE DAY TO FIND NEW AND BETTER CIRCULAR SOLUTIONS.”

Charlotte Scott Larsen, CEO of Ragn-Sells Denmark

– What we do today is for the survival of future generations. We have reached the point of no return. The world is running out of resources, and we must act now, says Charlotte Scott Larsen, CEO of Ragn-Sells Denmark.

The past year was eventful for Ragn-Sells in Denmark. As well as having a new CEO in Charlotte Scott Larsen, we have made significant progress in several business

areas. One example is the new legislation that requires Danish municipalities to collect outworn textiles from households for recycling. With our own sorting facility up and running, we can ensure that thousands of tonnes of discarded textiles are either reused or recycled.

In order to accelerate the transition from a linear to a circular economy, legislation has to develop in not discriminating recycled materials.

– To facilitate the investment needed for the circular transition, policy makers need to ensure that sustainable solutions are not disadvantaged or hampered by outdated legislation. We need a levelled playing field, says Charlotte.

As an example, plastics are an area where Ragn-Sells Denmark works hard to find better circular solutions that are commercially viable.

– Currently a lot of new plastic products are made of virgin materials instead of recycled. Why? Price. At a time where plastic recycling businesses need to expand, more are going bankrupt, says Charlotte.

To drive change, Ragn-Sells Denmark is working to raise the level of knowledge on circularity among both decision-makers and customers.

– We need to be part of the discussion and be a strong voice for the circular economy.



Denmark

Established	2001
Number of sites	8
Number of employees	109
Turnover (ext)	KSEK 699,000

But we must also walk the talk and back up our advocacy with solid day-to-day business. That is why we work every single day to find better circular solutions, says Charlotte.

With stricter EU legislation on sustainability reporting and due diligence on the horizon, Charlotte sees an opportunity for development in ensuring transparency in the supply chain.

– Transparency is challenging. We need to deepen our relationships, be honest about shortcomings, and help each other develop, says Charlotte Scott Larsen.

MARKET

Ragn-Sells in Estonia

A ROLE MODEL IN THE CIRCULAR TRANSITION

In Estonia, Ragn-Sells has become a role model for the transition to a circular economy. Leading by example and showing concrete ways to make recycled materials into new valuable resources is essential to inspire the industry and influence decision-makers.

“ WE SHOW THE WAY FORWARD BY DEMONSTRATING HOW THE TRANSITION TO A CIRCULAR ECONOMY LOOKS LIKE IN PRACTICE.”

Kai Realo, CEO of Ragn-Sells Estonia

– In Estonia, Ragn-Sells is no longer seen as a waste management company, but rather as a key player in the transition to a circular economy. We are leading the way by showing how the transition looks like in practice, says Kai Realo, CEO of Ragn-Sells Estonia.

Our aim is to give decision-makers a better understanding of what could be done within

recycling and resource recovery, and how. For example, when it comes to necessary updates in climate legislation where circular economy has not played a role until now. Kai Realo participates in a national climate council consisting of a number of different stakeholders, and where Ragn-Sells is one out of two businesses represented.

Last year, Ragn-Sells achieved several milestones in the Estonian market. Among them was the go-ahead for the Oil Shale Ash project, a groundbreaking effort to recover strategic and critical raw materials from the oil shale ash, a leftover from burning oil shale for energy. Decades of reliance on oil shale

as an energy source have left Estonia with 600 million metric tonnes of ash.

– The Oil Shale Ash project is a great opportunity to develop our new value chain operations in Estonia while tackling one of the country’s main sustainability challenges. The next step is to build a demonstration plant, says Kai.

Another key event was the launch of a joint project with Eesti Energia (Enefit) to collect used tyres and recycle them into new raw materials. The collaboration will prevent hundreds of thousands of tonnes of old tyres from being incinerated or ending up in landfills.



Estonia

Established	1992
Number of sites	6
Number of employees	266
Turnover (ext)	KSEK 353,000



A third business area that Ragn-Sells Estonia has focused on during the past year is waste management audits.

Looking ahead, one of the main challenges Kai Realo sees for both Ragn-Sells and the industry, is the moderate speed of competence growth and skills development in the field of circular economy.

– The people working in the industry today are not the talents we will need in the future. For example, you cannot expect an accountant to deal with climate data just because it is numbers. Instead, we need “environmental accountants”, and these skills are currently hard to find, says Kai Realo.

MARKET



Norway

Established	1989
Number of sites	30
Number of employees	500
Turnover (ext)	KSEK 2,223,000

Ragn-Sells in Norway

DRIVING CIRCULARITY, ONE WASTE STREAM AT A TIME

Cleaning up the fjords and recycling wood waste. To accelerate the circular transition and reduce the use of virgin materials, Ragn-Sells in Norway is working to leverage both billion-dollar opportunities and small-scale innovations.

“ WITH MORE THAN 100 YEARS OF EXPERIENCE, WE CAN BE A STRONG VOICE FOR THE CIRCULAR ECONOMY.”

Vidar Svenning Olsen, CEO of Ragn-Sells in Norway

The launch of a potential billion-dollar industry, increased competition, and a more uncertain world were some of the main factors in 2023 for Ragn-Sells in Norway.

– Our competitors have finally got the message, which brings both opportunities and challenges. Now we need others to recognise the potential of circular solutions to make

them commercially viable, says Vidar Svenning Olsen, CEO of Ragn-Sells in Norway.

One of last year’s key events was the launch of Ragn-Sells Havbruk’s technology, the world’s first plant to use an innovative filter technology to extract energy and phosphorus from fish sludge. Today, thousands of tonnes of fish faeces and feed waste from Norway’s fish farms are released into the sea, harming the aquatic ecosystems. With the Havbruk technology, we can reduce pollution while recovering valuable resources. In addition, it has the potential to become a new billion-dollar industry, allowing more fish to be farmed without damaging the coastal environment.

– Polluted fjords are one of Norway’s biggest sustainability challenges, and the Havbruk project can help to mitigate the problem. But as long as virgin raw materials are as cheap as they are now, they will stand in the way of a circular transition, says Vidar.

To influence policymakers, Ragn-Sells in Norway wants to strengthen the group’s advocacy work.

– With more than 100 years of experience in what we do, we can be a strong voice for the circular economy. However, the economic situation and the many conflicts in our world are slowing down advocacy efforts, as



decision-makers are preoccupied with short-term concerns, says Vidar.

In addition to the large-scale Havbruk project, the Ragn-Sells team in Norway is involved in a number of smaller, but no less important, endeavours, from implementing recycling solutions for flat glass, wood waste, and electric vehicles to reducing emissions from transport.

– There are so many good things being done throughout the organisation. We must harness these small but concrete initiatives and take pride in what we do. This applies not only to our employees but also to our customers, says Vidar Svenning Olsen.

MARKET

WHEN INNOVATIONS AND CLIMATE ACTION GO HAND IN HAND

Recovering valuable nutrients from waste streams is at the heart of EasyMining’s operations. With major progress on several projects and increased political interest, 2023 has been a turning point for Ragn-Sells’ innovation company.

“CIRCULARITY HAS FINALLY GAINED A CLEAR ROLE ON THE CLIMATE AGENDA. NOW OUR KNOWLEDGE IS IN DEMAND EVERYWHERE!”

Jan Svärd, CEO of EasyMining

– Circularity has finally gained a clear role on the climate agenda. Awareness of the need for recycled nutrients has increased in the EU and the rest of the world. Now, our knowledge is in demand everywhere, says Jan Svärd, CEO of EasyMining.

Last year’s success was the result of years of pioneering research, productive partner-

ships, and persistent political advocacy. At the centre of EasyMining’s business are three patented technologies for recovering agricultural nutrients from waste streams: Ash2Phos for phosphorus, Aqua2N for nitrogen, and Ash2Salt for potassium.

– Initially, our main focus was on research and development. Now, our focus is rather on commercialising our technologies to reach the end users of the nutrients, says Jan.

In 2023, EasyMining and Ragn-Sells took an important step towards establishing the first plant for recovering phosphorus from sewage sludge in Sweden, as the Land and Environmental Court of Appeal supported the stance

on environmental permits. The work to finalise the recycling plant is scheduled to start in 2024.

– It is a huge challenge that the permitting processes take so long. A lot of legislation is moving in our direction, but it is still too little and too slow, says Jan.

Another area where EasyMining hopes to influence decision-makers is the use of recycled phosphorus in animal feed. Currently, EU feed legislation prohibits the use of recycled nutrients originating from wastewater in feed materials, regardless of their quality.

– Studies show that the phosphorus produced by our Ash2Phos technology is of exception-

EasyMining

Established	2007
Offices in	Uppsala and Gothenburg, Sweden, and Berlin, Germany
Number of employees	44



ally high quality. By producing phosphorus from sewage sludge, we can break our dependence on imports from Russia while saving emissions equivalent to 20,000 tonnes of carbon dioxide every year, says Jan.

For inspiration on how to combine business and climate action, Jan Svärd turns to the founder of Ragn-Sells.

– We strive to be like Ragnar Sellberg – businessmen and environmentalists. He was living proof that good business and caring for the environment go hand in hand, says Jan Svärd. ■

OUR SUSTAINABILITY AGENDA

“ WE ATTEMPT TO
EVENTUALLY TRANSFORM
SOCIETY INTO A CIRCULAR
ECONOMY”

OUR FUTURE REQUIRES A WHOLE NEW ATTITUDE TOWARDS WASTE

Transitioning to a circular economy is crucial to our ability to save the planet and make it a safe place for people to prosper on. But the current view on waste stands in the way of this. The world needs a whole new attitude towards waste. This is what defines all our strategic sustainability work.

In a linear society, the general ambition is to reduce the amount of waste. This does not help us manage the challenges the planet faces. Instead, the ambition must be the long-term reduction of the unsustainable extraction of increasingly depleted natural resources.

The way we extract and process raw materials is responsible for half of the world's climate emissions, as well as enormous biodiversity loss and water stress. To ensure respect for human rights and a development that leaves

no one behind, the world needs a completely different attitude towards waste, where waste primarily is treated as a source of sustainable resources.

Ragn-Sells strives to be a thought leader and a role model in the circular economy, who, in collaboration with partners, finds new circular material flows to maximise the value of scarce resources.

Our entire business idea is built on this conviction.

Working towards circularity and an outlook on waste as a sustainable source for resources, is what guides our business strategy, focus areas, and sustainability goals. It is also the best way to integrate sustainability into our entire organisation.

An essential part of Ragn-Sells' sustainability integration, is to understand and influence market demand for more sustainable and circular waste management solutions. This

requires continuous, dedicated, and transparent engagement with stakeholders.

On the strategic level, we strive to be an activist company by taking an active part in the public dialogue and sharing our knowledge with relevant stakeholders.

Through collaboration and inclusion, we attempt to re-shape the market, create new ways of doing business, and eventually transform society into a circular economy. ■



A SUSTAINABLE BUSINESS STRATEGY

Our sustainability strategy is based on our vision to be living proof that caring for the earth and business go hand in hand.

We want to lead the transformation towards a circular economy, where we care for the environment, counter climate change, and help communities prosper. It is the foundation for everything we do.

This year, we have developed our sustainability strategy in our 2030 Pledge.

To counter climate emissions, bio-diversity loss, and water scarcity, Ragn-Sells pledges to:

- Strengthen our efforts to recycle materials and bring them safely back to the market.
- Introduce more circular solutions that avoid CO₂e emissions in multiple value chains.
- Avoid using fossil fuels in our own operations.

Goals for 2030:

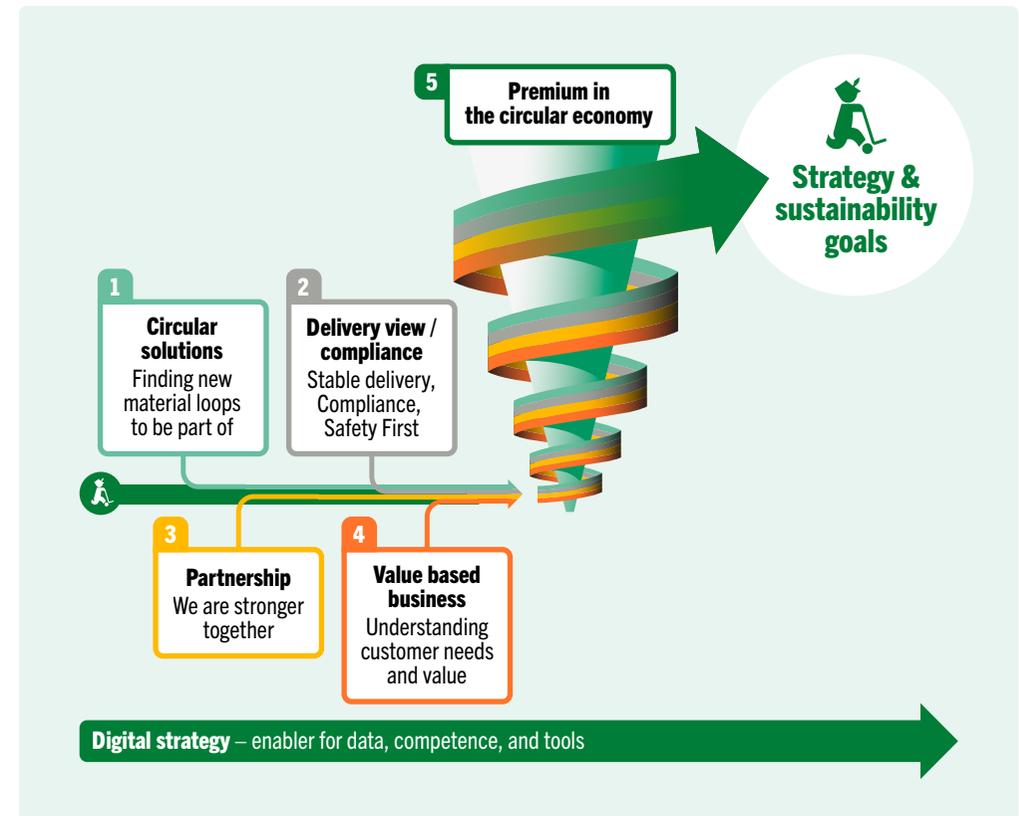
- Cut climate emissions (CO₂e) from our own operations with 50% compared to 2019.
- Contribute with solutions that ensure that by 2030 at least 2 million tonnes of emissions (CO₂e) per year are avoided.

Ragn-Sells' strategic sustainability work guides all business operations and consists of five areas.

By finding **circular solutions**, and new material loops to be a part of, we can offer a higher degree of sustainability and customer value.

We walk the talk by focusing on a stable **delivery**, ensuring compliance, quality, and business ethics, while always putting safety first.

We also know that we cannot change the world alone. **Partnerships** are key to identifying and developing new and innovative



circular solutions, but also lead to a deeper customer understanding.

This in turn helps us to ensure quality and create a **value-based business** that enables sustainable and innovative solutions for a circular future.

A circular society depends on trustful cooperation. Ragn-Sells aims to be a strong and trusted brand and thought leader – being **premium in the circular economy**.

These focus areas reinforce each other and help us reach our sustainability goals and ambitions, while creating a competitive advantage. In order to succeed with our ambitions, we need to have a shift in policies from “minimising waste” into becoming resource focused. We are therefore very active in advocating for a policy shift in EU and on UN level. ■

SUSTAINABILITY GOALS

To lead the transformation into a circular economy with reduced pressure on the planet, we need ambitious goals and targets within all three dimensions of sustainable development – social, economic, and environmental.

Our strategy is strongly anchored and aligned with the sustainability challenges identified in the UN's 2030 Agenda, and ambitions in the Sustainable Development Goals (SDG's), as well as the Paris Agreement and the ambition to keep global warming under 1.5 degrees Celsius.

Of particular relevance to our business is **SDG 9 Industry, Innovation, and Infrastructure**, **SDG 12 Responsible Consumption and Production**, **SDG 13 Climate Action**, and **SDG 17 Partnerships for the Goals**.

To support our sustainable business strategy and planetary ambitions, we have decided on seven sustainability goals, to be achieved by 2030.

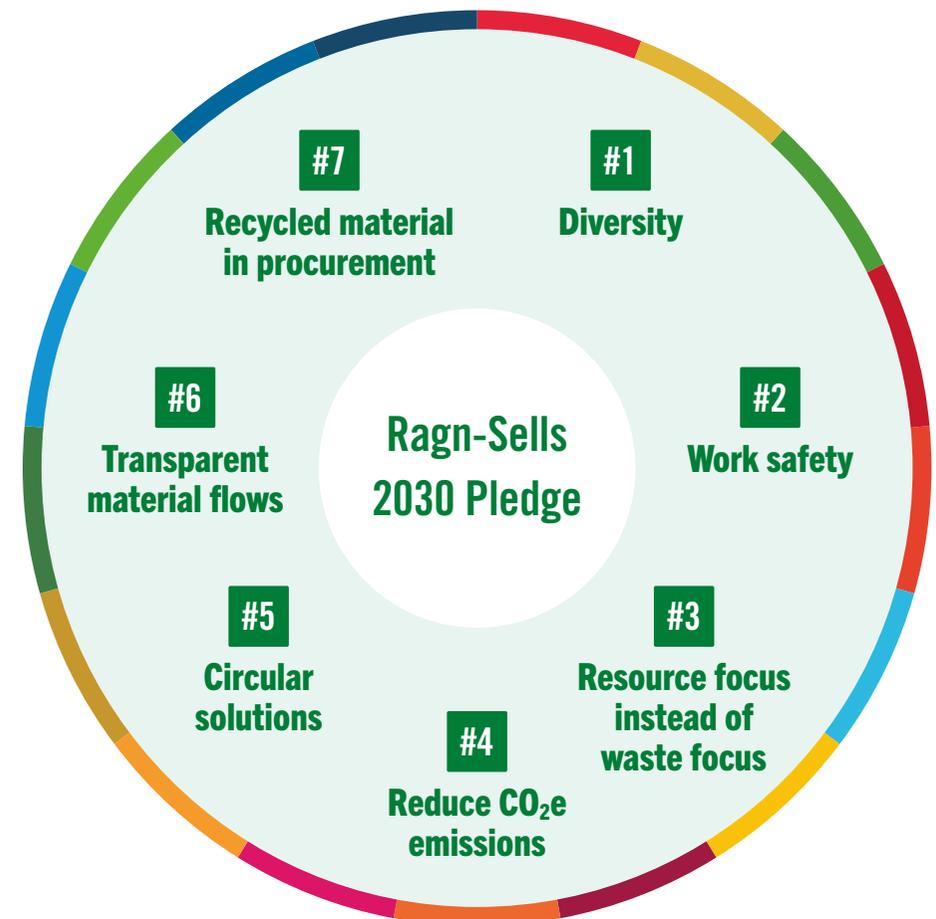
It is our firm belief that we need ambitious goals and targets within all three dimensions of sustainable development – social, eco-

nomie, and environmental – to lead the transformation into a circular economy and help reducing pressure on the planet.

Each sustainability goal has a responsible sponsor for developing and executing strategic action plans to reach the goal. All the sponsors are part of the Executive Leadership Team and in charge for integrating the sustainability work for each goal in the entire organisation.

Our seven sustainability goals have the ambition to provide transparency, a licence to operate as a responsible business, enable a safe, collaborative, and non-discriminatory workplace, ensure that we walk the talk and reduce our own emissions in addition to creating solutions to avoid emissions elsewhere in the value chains. ■

Our sustainability goals



WHAT LEADS US

Ragn-Sells strives to be a thought leader and a role model in the circular economy. This impacts everything from business models to our management approach. Truly integrating our sustainability ambitions into everything we do is a continuous journey of transformation.

Driving the transformation from a linear to a circular economy requires everything from new business models, thought leadership, and committed partnerships, to an active integration of sustainability considerations into all business operations.

Operating in a constant state of transition also creates high demands on our leadership.

To be able to lead in a process of change, it is necessary to find new work methods, and promote a corporate culture that supports our long-term strategy.

Our approach is to create both partnerships, and a company culture, founded on trust. This enables us to be a driving force for sustainable business development and

circularity. To reinforce this, we work according to a leadership model known as 5C. This model was launched in 2019 and has since then framed our journey in terms of appropriate leadership action and engagement across the whole organisation in the shift towards circularity. ■

“OUR APPROACH IS TO CREATE BOTH PARTNERSHIPS, AND A COMPANY CULTURE, FOUNDED ON TRUST.”



Communication

We continuously increase our ability to communicate and enable all stakeholders to contribute to our sustainability work. We listen to each other, seek dialogue, and give constructive feedback for better results.



Collaboration

By networking, sharing knowledge, and creating common goals to support one Ragn-Sells, we help each other succeed as well as accelerate circularity with our external stakeholders.



Commitment

We strive to continuously improve as individuals and as an organisation. By setting clear and measurable goals for each employee, we inspire people to be committed to Ragn-Sells, and loyal to our strategic decisions.



Compliance

By caring, taking responsibility, and being compliant with laws, regulations, and standards, as well as internal policies and guidelines for operational excellence, we maintain trust and a license to operate as a leader in the circular economy transformation.



Competence

We proactively develop skills and competence for both individuals and the organisation as a whole. Only with the right knowledge can we support our partners in their circularity journey through a rapidly changing world.

STAKEHOLDER ENGAGEMENT

We cannot be successful in the transformation to a circular economy without all our stakeholders. Collaboration and engagement with stakeholders are essential to understand our impact in society, and to develop innovative solutions and services that create value.

Many of our stakeholders share our concerns regarding areas crucial to the transition to a circular economy. This includes issues such as climate change, environment and biodiversity, human rights and business ethics, as well as health and safety. At the same time, our stakeholders' concerns and expectations vary depending on the type of relation they have with Ragn-Sells and our business.

Through collaboration and effective dialogue with our relevant stakeholders, we get a better understanding of our impact in society, and our stakeholders' expectations. Moreover, we learn from good practices. This type of knowledge-exchange is essential to lead the transformation to a circular economy.

We are aware that new stakeholders may appear as we continue to create new circular solutions and enter into new partnerships. As we develop into being both a waste management company and a raw material provider, we become part of several new value chains. This in turn creates new stakeholders and new partners, which requires that we continuously update our stakeholder analysis, materiality analysis, and stakeholder dialogue.

Our prioritised groups of stakeholders are those we assess have the greatest impact on us, and/or are most impacted by our business operations. These groups are illustrated here, together with the most important topics for each stakeholder group. ■

Prioritised stakeholders



STAKEHOLDER DIALOGUE

During 2023, we have had an ongoing dialogue together with all of our prioritised stakeholder groups.

Stakeholder group	Dialogue in 2023
Owners	Board meetings and financial reporting are the main channels for conducting dialogues with our owners.
Employees	An Employee satisfaction survey conducted biannually complemented with a Pulse survey performed in the inbetween year, meetings, onboarding and offboarding surveys, dialogue with union representatives and safety representatives.
Customers upstream	Customer surveys, personal meetings, our Customer portal, interviews.
Customers downstream	Customer surveys, dialogues, on-site audits, follow up on Business Partner Code of Conduct.
Policymakers	International perspective: Regular meetings with politicians in the EU Parliament, ongoing dialogue with politicians on national level in all countries where we operate. National perspective (Sweden): Personal meetings, round table discussions, seminars, consulted as experts in different processes of policy making.
General public	Round table discussions, open seminars in for example Almedalen, meetings, cooperation groups (samverkansgrupper).
Partners/Suppliers	Supplier assessments, supplier dialogues and meetings, on-site audits.



MATERIALITY ANALYSIS

By analysing where Ragn-Sells has the biggest impact on people and society, the environment, and the economy – both positive and negative – we can allocate our resources and sustainability efforts to where they make the biggest difference.

The materiality analysis is the most important tool to understand our business in relation to a sustainable development, and how we should work to maximise positive impact, and minimise negative impact.

So far, Ragn-Sells has conducted a materiality analysis with key stakeholders on a regular basis to identify focus areas for our sustainability efforts.

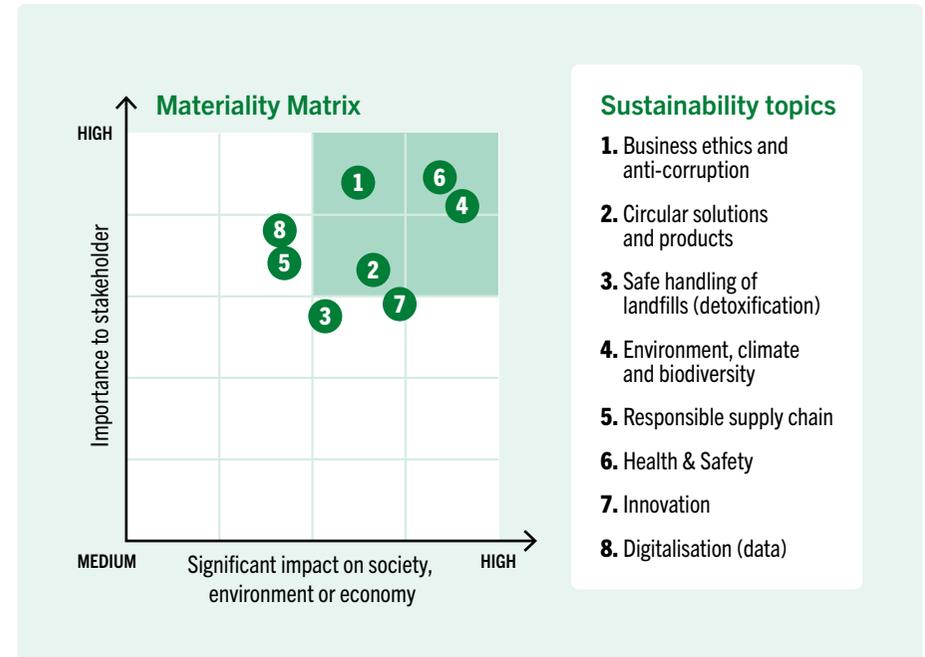
With new EU regulations coming into effect, we will expand our materiality analysis to be compliant with the requirements for a double materiality analysis.

In addition to assessing Ragn-Sells' impact on people, society, the environment, and the

economy, we will also analyse how we are affected by the world in which we function.

We began the process of conducting a double materiality analysis during 2023, which will be completed during 2024. We can already tell that biodiversity and human rights, due to both their strong connection to climate change, and to the elevated regulatory focus, are growing in significance, which most certainly will be reflected in our double materiality analysis.

For this reporting period, we lean on the materiality analysis conducted in 2021, which was used as the foundation for an internal discussion about our sustainability impact, as well as the deep dive into the materiality analysis we did in 2022.



Focus on CO₂e emissions

Our CO₂e emissions, are one of our biggest sustainability impacts on society and we are constantly working towards increasing our understanding of the exact nature of our CO₂e impact.

During 2023, we have conducted three projects aimed at improving data collection and our understanding of both our climate scope and value chain impact.

- We have done a thorough mapping of clients and suppliers, assessing material flows and possible risks connected to our value chain.

- In Sweden, we have made new strategic choices on how to calculate emissions on-site, based on economic costs, leading to a more accurate accounting of emissions.

- In 2023, we took the decision to set scientifically based targets in accordance with the [Exponential Roadmap Initiative](#), a part of the [UN campaign Race to Zero](#), and we are currently concluding their Strategic Climate Performance Review.

The work with analysing and evaluating the extent of our scope 3 emissions, will continue developing during 2024, in order to complete an accurate baseline for the base year 2019. ●

COMPLIANCE AND RISK MANAGEMENT

Ensuring that all our business operations are compliant, ethical, and with strong corporate governance, is a minimum for our license to operate as a thought leader in the circular economy.

Since the Ragn-Sells Group has businesses in many countries, and is involved in a wide range of processes, services, and products, we take a very comprehensive approach to compliance and business ethics.

Being compliant relates to a broad spectrum of responsible business conduct and sustainability issues. In addition to corruption, bribery, competition, data protection and information security, the provision of safe and high-quality products and services, are priorities for our compliance work. It also includes labour rights issues such as health and safety and workplace discrimination.

The Ragn-Sells Code of Conduct states our position in relation to legal compliance,

human rights, employees, business ethics, conflicts of interest, company assets, and exports to developing countries. We strive to promote transparency and openness with regards to compliance and possible deviations and encourage our employees to raise their concerns regarding potential violations of the Code of Conduct. Since 2021, we also have an external whistleblower channel.

To act as a responsible business partner, we want to identify and be aware of risks, both downstream and upstream in our value chains. In our downstream activities, involvement with other actors can include non-compliance risks and deviations from environmental, social, and economic laws and regu-

lations. In the upstream activities, risks include poor working conditions for temporary staff, and workers at the sites of our suppliers and customers.

Ragn-Sells bolster transparency throughout the entire value chain, with a separate sustainability goal devoted to transparent material flows. Without knowing how the materials have been used, we lack ways of measuring the potential sustainability value.

This need for transparency, is why Ragn-Sells warmly welcome increased regulation of transparent value chains. New regulation, especially in the EU, sharpens the requirements for a materiality analysis and risk assessments. In addition, the scope expands.

“ IDENTIFYING RISKS, BOTH DOWNSTREAM AND UPSTREAM IN OUR VALUE CHAINS, IS THE FIRST STEP TO ENSURE A RESPONSIBLE SUPPLY CHAIN. TRANSPARENCY IS A GAME CHANGER FOR A CIRCULAR TRANSITION.”

Fanny Hagbom, Head of Compliance at Ragn-Sells Group

Moving forward, our compliance work will focus even more on the entire value chain, both upstream and downstream. We will also widen our scope concerning human rights impact and have initiated a project providing a broader overview. We are also working on ensuring Ragn-Sells is prepared for new regulations in the areas of cyber security and greenwashing that are coming into effect in the coming years. ■

REPORTING ON 2023



#1

DIVERSITY

Goal: The culture in Ragn-Sells is inclusive and non-discriminative where diversity and gender balance amongst company leaders is the norm.

By investing in people and promoting an inclusive working environment, we enable the development of new skills and working methods needed in a circular economy.

Whistleblower channel

During 2023, 5 incidents were reported through the whistleblower channel, and there were 0 convictions related to violations of human rights, labour law, or other violations of legislation related to social aspects such as discrimination or harassment, were reported for 2023 (2022: no cases).

Ambitions related to gender equality:

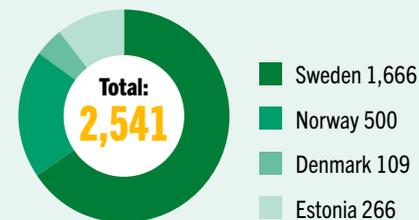
- At least 50% of all new leadership recruitments are to be female until 2030.
- Wanted position 2025: Women in Profit & Loss leadership teams: 35%
- Women in Succession Planning: 40%
- Women in Leadership positions: 30%
- Wanted position 2030: 50/50 gender balance in all leadership positions and leadership functions.

“Ensuring diversity in backgrounds, experiences, skills, and thoughts is the best tool we have to achieve our sustainability goals, while developing the business.”

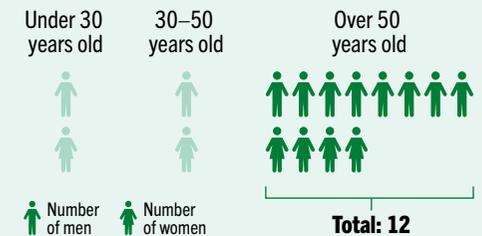
Susanne Schumann, Chief Human Resources Officer at Ragn-Sells Group



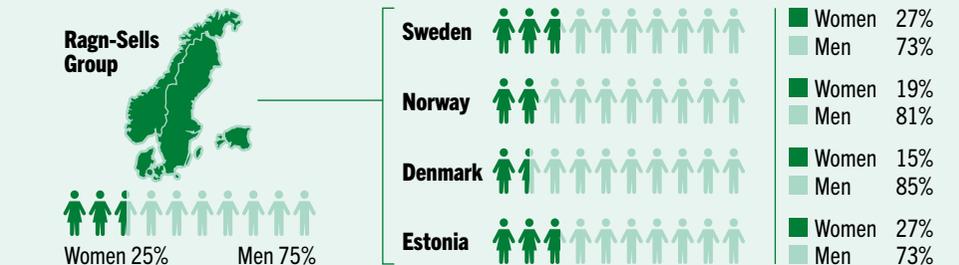
Number of employees 2023



Diversity in top management 2023



Employees by gender 2023



#2

WORK SAFETY

Goal: Our work safety is industry leading, and we are perceived as a role model.

Safety first is a key principle that permeates every aspect of our business. We run a number of group-wide initiatives to shape a strong safety culture. A key activity in 2023 included making our initiative Safety Week into an annual tradition for all employees. The purpose of this activity is to increase risk awareness amongst employees and to continue to develop our safety culture.

With the purpose of setting the framework for Ragn-Sells future safety work, our group common Safety Board cover areas and key performance indicators measured on own employees such as Lost Time Injury Frequency (LTIF) and Total Recordable Injury Frequency (TRIF), report progress on

decided safety activities for the group. Other aspects are sharing and communicating best practices in a structured and systematic way.

This reporting year, the LTIF resulted in 6.6 (7.8) and TRIF at 13.2 (14.7) respectively for Ragn-Sells Group. During 2024, we will continue to develop and implement leading KPI:s as well as training and support for how to work with root cause analysis.

The most common hazards in our workplace are slips, trips, falls, falls from heights, contact with sharp edges, and improper working positions. Hazards are defined and documented in instructions, identified locally after investigations, and subsequently reported

“Our increased focus on safety leads to more incidents reported, which is an invaluable tool for monitoring progress and gaining insight into our safety work.”

Mikael Hedström, CEO of Ragn-Sells Treatment & Detox Sweden



centrally. In 2023, 103 (205) injuries were reported, of which fatality 1 (0), lost time cases 28 (50), medical treatment cases 29 (57), permanent disability cases 0 (3), restricted work cases 5 (4), and first aid cases 41 (91).

In 2023, two fatal accidents occurred in our operations. One of the deceased was an employee of Ragn-Sells, and one an employee of one of our subcontractors. Both accidents have been thoroughly investigated to understand how they arose and to assess what needs to be done to prevent future accidents.

Percentage of sick leave 2023



#3 RESOURCE FOCUS INSTEAD OF WASTE FOCUS

“If we are serious about creating a sustainable society, we have to start treating waste for what it really is; the only truly sustainable source for the things we need.”

Anders Kihl, Chief Strategy Officer and R&D Director at Ragn-Sells Group



Goal: The established waste hierarchy (part of the EU legislation) has been replaced by a resource focus instead of a waste focus principle that emphasises the importance of securing the availability of circular resources.

According to the UN, the extraction and processing of natural resources account for about 50% of climate change, 90% of biodiversity loss, and 90% of the threat to access to water.

Currently, most legislation focus on reducing the amount of waste. However, this counteracts the circular solutions needed to manage these global challenges. The world needs a fundamentally new attitude towards waste, where waste is seen as a sustainable source of raw materials. This is an absolute requirement to break the harmful and risky dependence on virgin materials.

We sometimes describe ourselves as an activist company, strongly advocating for more ambitious regulation on circular waste management systems. We continuously initiate public dialogue and share our knowledge with relevant stakeholders. Political spheres, industry initiatives, and media platforms are examples of where and how we engage to reach out with our message.

Throughout this report we have numerous examples of how we have engaged with our stakeholders in 2023. To name a few highlights, we are proud to have been one of the main authors to the article [“Five key enablers](#)

[for circularity”](#) by the International Chamber of Commerce. This publication helped lay the foundation for circularity, for the first time, being included in the final negotiated text from the UN’s annual Climate Change Conference, COP28. Ragn-Sells also had a strong presence at COP28 in Dubai, as part of Business Sweden’s delegation.

During Climate Week in New York City in September, we launched the 10 Billion Challenge – a new initiative to fundamentally change the global food system to be able to feed a population of 10 billion people, within the planetary boundaries.

Ragn-Sells Group’s sustainability director, Pär Larshans, was appointed president of EuRIC, the European Recycling Industries Confederation.

In our local markets, we participated for example in Arendalsuka in Norway and Almedalen in Sweden.

In order to support the realisation of our sustainability goals, and take leadership towards a circular economy, we will continue to coordinate our advocacy activities across the Ragn-Sells Group in 2024. ■

#4

REDUCE CO₂e EMISSIONS

“Our recipe to meet the climate challenge, while creating sustainable growth, is to enable and promote circular material flows in society.”

Magnus Uvhagen,
CEO of Ragn-Sells Recycling Sweden



Goal: Ragn-Sells has reduced the footprint from our operations and facilities in line with, or better than, the Paris agreement.

A core component in Ragn-Sells' 2030 Pledge, is to cut climate emissions (CO₂e) from our own operations with 50% compared to 2019.

While our circular solutions have huge potential to decrease the need for virgin materials, thereby avoiding climate emissions caused by others, Ragn-Sells is still a large emitter of CO₂e in our own business operations. Our negative environmental impact mainly derives from emissions from landfills, transport, and treatment plants. Our continuous work to limit our negative environmental impact include handling, monitoring, and limiting emissions to air, land, and water, developing transport logistics, switching to renewable fuels, and performing final coverage of landfills.

Emissions of greenhouse gases in 2023

This reporting year, Ragn-Sells' total emissions of greenhouse gases amounted to 79,000 tonnes including landfill gas (97,000 tonnes, 2022). Total emissions of greenhouse gases, landfill gas excluded, amounts to about 46,000 tonnes.

The purchased electricity for all operations in Sweden is origin-marked renewable electricity.

Emissions from transports in 2023

A major part, 39,000 tonnes of our emissions (47,000 tonnes, 2022), derive from fossil-fuels in transport. In recent years, measures to decrease the environmental impact

include eco-driving, a review of route optimisation, an update of the vehicle fleet, and replacing fossil fuels with renewable options, such as bio-based fuels.

During 2023, Ragn-Sells implemented a more detailed and accurate way of measuring emissions. We analysed the costs for fuel and energy on each plant, comparing them to transport data, and adding an emissions-factor. These more specific measuring methods explain an increase in total emissions from transport compared to 2022, despite the above efforts to decrease emissions.

Our emissions from business travels decreased to 891 tonnes CO₂ (993 tonnes CO₂ 2022).

Our vehicle fleet for company cars consists of 94% electrified vehicles (94 in 2022).

Emissions from landfills in 2023

Most emissions of greenhouse gases from Ragn-Sells' operations derive from landfills, which accounts for about 33,000 tonnes CO₂e, or a little less than 50%. In 2020, we changed the way we report emissions from our landfills, moving from theoretical calculations to actual measurements of real methane emissions. After four years of measurements, we have proven that our emissions are much lower than the theoretical model previously used. ■

#5

CIRCULAR SOLUTIONS

“Ragn-Sells will counter climate emissions, bio-diversity loss, and water scarcity through innovative circular solutions that both detoxify and recycle back critical resources to society.”

Pär Larshans, Chief Sustainability Officer at Ragn-Sells Group



Goal: Through collaboration with partners, we develop new and refined circular material flows to increase material recycling. By 2030 these will contribute with an additional 1 million tonnes of CO₂e in avoided emissions per year.

The ever-increasing extraction, processing, and transformation of virgin raw materials, such as fossil fuels, metals, minerals, and biogenic substances to be used as feedstock for global production, are responsible for 50% of all climate emissions, 90% of biodiversity loss, and 90% of water scarcity in the world, according to the UN.

The best way to counter these three challenges is to increase the recycling of raw materials that the global economy is extracting and using for production purposes.

This is achieved by establishing circular material flows. These flows are value chains supported by systems, technologies, or services which contribute to the reduced extraction, processing, and transformation of virgin resources.

Many of Ragn-Sells' current business operations enable more materials to be used over and over again. By extracting resources from waste, removing toxic components from the material loops, and implementing circular solutions that avoid climate emissions in other value chains, our business operations have a positive sustainability impact.

A few of our more notable projects on circular solutions from 2023 include the Flat Glass Project with Saint-Gobain, where flat glass from demolished houses, are taken care of and recycled into new glass. As well as the innovation solution for aquaculture named “Havbruk” in Norway, which contributes to the removal of phosphorus from the fjords and the return of nutrients to agriculture. In addition, we inaugurated the Ash2Salt plant just outside of Stockholm in Sweden, where fly ash from waste incineration is detoxified and salts are extracted and recirculated into the system.

Other noteworthy examples from 2023 include the Clean Construction project with IKANO in Sweden, where Ragn-Sells takes care of construction waste, the contract with WUPPI in Denmark to secure a higher collection and recycling of PVC-plastics, and the Oil Shale Ash Project with Tarkett in Estonia, turning ash into PCC.

In 2024, we will continue to develop, implement, and improve approaches to resource management. To succeed we are in close collaboration with universities, research institutes, customers, and additional relevant stakeholders

#6

TRANSPARENT MATERIAL FLOWS

“Sorting materials, collecting as much recyclables as possible of the resources we have, and creating high quality raw materials that can be used over and over again, is my passion. However – no material is recycled responsibly until we know both where it comes from, and who is receiving and recycling the material that we offset.”

Jonas Wäneskog, Managing Director at Ragn-Sells Recyclables



Goal: The depositing of our downstream material on the world market is monitored and audited in a transparent and compliant manner and is the norm in society.

Knowing the origin of a material, as well as who is receiving and recycling the material we offset, is critical. For recycling to work both as a business model and a societal gain, we have to know where the material comes from and where it is being recycled downstream. Transparency is the best way to avoid negative sustainability impact and violations of human rights, and to maximise the potential positive impact in society.

Ragn-Sells often plays a crucial part in other actors' value chains, both as a customer and

as a supplier. This creates additional imperative to act as a responsible business partner.

Identifying risks both downstream and upstream, is the first step to ensure responsible supply chains. In our downstream activities, involvement with other actors may involve risks such as non-compliance and deviations from environmental, social, and economic laws and regulations. In the upstream, risks may include poor working conditions for temporary staff, and workers

at the sites of our suppliers and customers, including the risk of human rights violations.

In 2023, 16 (11) critical upstream suppliers were audited and 16 (12) of our critical downstream customers were audited. A critical part of the audit is to decide if any corrective actions are needed such as price adjustments, penalties, or early termination of agreements. During 2024, we will continue performing audits.

In 2023, we also conducted a large-scale risk assessment of our downstream solutions. We analysed material groups and types of downstream customers and identified where traceability issues may occur. The results were benchmarked against our customer assessments. Economic instability in our customers' operations was identified as a risk with the potential consequence that the materials did not end up being properly treated. ■

#7 RECYCLED MATERIALS IN PROCUREMENT

“If we really want to lead the transition to a circular economy, we need to set an example regarding recycled materials in our own procurement.”

Madeleine Ljunggren, Chief Financial Officer at Ragn-Sells Group



Goal: At least 50% of all our procurement is sourced from recycled resources.

By 2030, Ragn-Sells' goal is that half of all our product procurement will be made from recycled raw materials. This is an ambitious goal that requires that we actively push our suppliers to use recycled raw materials in their production. But, if we are serious about our mission to increase the level of recycled materials in society, we need to lead by example and also take our responsibility when we are the customer. This is also in line with our strategic business decision to increase circular material flows on the market.

One objective for 2023 was to map Ragn-Sells' own procurement and establish a baseline for the share of recycled materials in our procurement. Knowing where we start is important, but since our goal should apply regardless of baseline, we have decided to put more focus on how to move forward and identify important measures with a high potential for a positive sustainability impact.

One finding during 2023 is that specific targets need to be adjusted, both due to insufficient information from suppliers and missing techniques to actually use recycled

materials in production. Based on this some of our goals have been revised as we realise it will take a longer time to reach them.

In addition to awareness raising and ensuring available supplies, our cost may increase in order to reach this goal. Products made of recycled materials are still more expensive than comparable ones made from virgin resources. This is mainly due to the fact that resources are not priced in accordance with their actual cost to society. The higher price-tag for procuring products that are made from recycled materials may be a short-term

cost, but long-term this is a cost-benefit analysis we should all be willing to make.

During 2024, we will focus on mapping prioritised procurement categories in order to increase the level of recycled materials as much as possible. Our procurement team is fully dedicated to work with the task to assess the potential for raising the level of recycled materials in all product categories and determine where to begin. ■

FINANCIAL INFORMATION

“When financially strong, we can invest in innovative solutions required for the transition to a circular economy and ensure sustainable finances in our daily operations.”

Madeleine Ljunggren, Chief Financial Officer at Ragn-Sells Group

Wrapping up 2023, we are proud of the development across our markets and business areas. We continue to have a strong financial position, strengthening our ability to continue innovating and promoting a circular transformation.

For Ragn-Sells Group, the net revenue for 2023 was stronger than anticipated, albeit slightly lower than previous year. The profit was higher than budgeted for all three business areas.

External factors impacting our financial performance include falling raw material prices and the currency effects of a weak SEK and NOK. We have managed to protect and

increase our gross margin for both our Recycling and Treatment & Detox business, despite higher costs in general.

Through sustainable finance in daily operations, we continue to invest in research and development, enabling the innovation of new circular solutions. Our financial stability is the ultimate proof that caring for the earth and business truly go hand in hand. ■

Direct economic value generated (MSEK)

	2023	2022
Revenues	8,530	8,696
Net investment	149	345

Distributed economic value (MSEK)

Employees	-1,999	-1,850
Suppliers and public sector	-6,216	-6,630
Sum of distributed value	-8,216	-8,480
Profit from associated company	23	24
Operating profit	485	588
Providers of capital (payment)	-32	-8
Accounted taxes	-91	-111
Profit	363	469
Dividend to owners	9	6



For further information regarding this report, please do not hesitate to contact Pär Larshans, Chief Sustainability Officer and Public Affairs Director at Ragn-Sells Group, par.larshans@ragnsells.com



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