Sustainable Business Guide
Reflecting the needs of our new world
Our world has slowly come to the realization that current needs should not compromise future generations. Understanding that operating within the limits of what nature can provide is at the core of this recent move toward responsible living. This mindset is reflected in consumer attitudes where “green” or eco-friendly characteristics are key purchasing drivers.

Government regulations favoring these products and practices are growing stricter and greatly impact companies throughout the supply chain. Successful companies evolve and view these green initiatives as opportunities and not just for financial gain; companies that recognize the intrinsic value of dedicated people who have a strong desire to leave the planet as they would wish to find it.

This is COVENTYA.

Treat the Earth well. It is not inherited from your parents; it is borrowed from your children

- Kenyan proverb
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The Company

Leadership

“COVENTYA is not a company with technology at its core. It’s people. People that work just as they live. A strong desire to succeed but always with respect for the world we live in and the future that lies in the balance of our actions.”

Thomas COSTA -CEO

“We recognize that true eco-consciousness goes well beyond tag lines, logos and board room commitments. It must be ingrained in our culture with signs of it everywhere in our company. The fact is, we do not encourage sustainability…..we demand it”

Torsten BECKER-CFO

What is a Sustainable Business? Although this term is gaining widespread use, its meaning is open to interpretation. Wikipedia defines this as:

“An enterprise that, while seeking to generate profit, has no negative impact on the global or local environment, community, society, or economy. In general, these companies have progressive human rights policies, supply environmentally friendly products and have made an enduring commitment to environmental principles in its business operations. In other words, it is a business that “meets the needs of the present world without compromising the ability of future generations to do the same.”
History

COVENTYA is a specialty chemicals company active in the field of Surface Treatment with a focus on Electroplating and Electroless Metal Coatings. Although founded in 2000, COVENTYA has a rich and diverse history in surface treatment dating back to 1927. COVENTYA accelerated its international growth through the acquisition of many well respected European, American and Asian suppliers.

These additions not only broadened the geographical scope of the group but added new technological competences in Decoration, Precious Metals, Functional and WaterCare product lines.

The success of COVENTYA can be tied directly to a multifaceted strategy developed in 2000 and effectively implemented since then:

- Always recognize we are a company with people at its core
- Pursue diversity in technology, geography and industries we serve.
- Bring our customers the best products in the world, not just the best products in our portfolio
- Commit to environmental responsibility and sustainable business practices

In recent years, various environmental regulations provided COVENTYA with an opportunity to focus on green technology and capitalize on new products to meet these demands. Whereas competition saw barriers, COVENTYA saw potential. Through a substantial commitment of resources, an entire generation of new products was developed to satisfy the demands of an ever increasing eco-conscious world. COVENTYA is proud to be at the forefront of this movement and works every day to remain ahead of new regulations.

Today, COVENTYA is an established and recognized leader in the development and distribution of innovative surface finishing products in over 50 countries and 5 continents. COVENTYA products are as diverse as are the industries and applications they can be found in. From automobiles and oil fields to computers and fashion, COVENTYA products touch lives each and every day.
People

As stated earlier, our success is tied directly to our employees, many of whom are owners of COVENTYA. They not only recognize our customers’ needs but are experienced and committed to satisfy them. They work just as they live; with a respect for the world they live in and the desire to leave the planet a better place for their children.

As a multi-national/cultural company, COVENTYA offers a very distinct benefit to our customers; diversity of ideas. Although we recognize the value of consistency to purpose and structure, we do encourage independent thinking and creativity. The end result is many answers to few questions, quicker problem solving via global teams and truly novel technology.

Technology

If people drive our business then R&D is the engine. COVENTYA has seven R&D centers around the world, each with a specific purpose related to the strength of its local industries. With an experienced staff, strong technical leadership and state of the art equipment, COVENTYA is poised to pursue the innovations of tomorrow.

Guiding our R&D activity are the rules of an ever increasing eco-responsible world, where impact on the environment is judged an equal with process performance.

The result is a collection of product lines that is one of the most comprehensive and environmentally friendly in the world.

Our customers know that if they start it……. COVENTYA will finish it.
Industries we serve

COVENTYA’s products can be found in nearly every imaginable place on earth, and sometimes beyond (we’ve even supplied finishes for use on the Mars Rover!). From engineers in the energy, electronics and automotive sector to designers of high fashion and luxury items, COVENTYA has become a reliable and trusted partner.

Consumer goods are an important market segment for COVENTYA. For every metallic surface you touch each day, be assured that COVENTYA either has a viable eco-friendly option or is pursuing one.

If you can create it……COVENTYA can plate it.

Geography

COVENTYA understands that leadership requires a committed presence. Not just for efficient and speedy supply lines but for responsive and reliable support. COVENTYA operates in over 50 countries with expectations to expand our reach even further. This certainly validates the need for sustainable business practices as we may just be your neighbor.
ECOLINE Summary

What is ECOLINE?

Simply stated, it is COVENTYA’s collective mindset that guides and measures all of our sustainability practices.

Why ECOLINE?

Our world today requires companies to provide more than just jobs and tax revenue. It demands responsibility. COVENTYA recognizes this and like many companies that successfully evolve, have embraced the concept of the triple bottom line: People, Planet and Profit where an expansion of traditional reporting now includes ecological and social performance. COVENTYA wants to be here tomorrow and implementing sustainable business practices ensures our future.

Where can ECOLINE be found?

ECOLINE guides our decisions and measures our results in the following areas:

- Supply Chain Management
- Operations/Employees/Community
- R&D/Products
- Customer support

Throughout this document you’ll find examples of where ECOLINE is applied and how it is helping COVENTYA contribute to a better tomorrow.
ECOLINE Goals

Successful development and preservation of a sustainable business requires measurable goal setting. COVENTYA actively reviews these objectives, monitors progress and when necessary, makes adjustments based on the evolving world around us. Today, this is what we are working on:

- Replace/reduce CMR (Carcinogenic, Mutagenic & Reproductive Toxic) Allergenic & Toxic substances
- Develop and supply processes that minimize or eliminate waste
- Develop novel energy efficient processes
- Implement sustainable business practices
- Creation of an ECO-grade system for all of our products and consistent use in our literature
- Expansion of WaterCare, a full product line designed to help our customers manage their industrial water use.

ECOLINE Commitment

- We will pursue ECOLINE initiatives that are substantial, practical and measurable and will avoid “green washing” our business for superficial gain.
- We will require all COVENTYA facilities to develop and maintain local sustainable business practice programs. This will involve an annual eco-assessment, ongoing training and review of goal attainment.
- We work closely with our customers to ensure they have the necessary information and training on proper and safe use, storage, treatment and/or disposal of our products.
- We will state exactly what makes our product environmentally friendly and ensure that all claims can be substantiated.
- We will strive to provide our customers with high performance products that meet all global environmental regulations allowing them to pursue the world’s most challenging applications.
- We will promote responsibly by referencing facts, accenting only relevant eco-improvements and avoiding exaggeration for the purpose of alarming our customers or the marketplace.
- We will maintain the details of our ECOLINE approach online to make our commitment public.
COVENTYA ECOLINE Touch points
Operations/Employees/Community

COVENTYA has many manufacturing facilities located across the globe. Significant capital resources are spent each year to install and/or maintain safe, efficient and high quality manufacturing equipment.

Each of these sites has implemented sustainability practices consistent with ECOLINE. Some have developed or are in the process of developing a formal program that provides a guide on such matters as vendor requirements, work schedules, energy use, water consumption and interaction with the local community.

We have implemented a worldwide education program for our employees on health, safety and sustainable practices in the workplace. It is our hope that the high level of transparency in our ECOLINE initiative will not only make it a natural part of our daily routine but that many will bring it home as well. Sustainability does not end in the COVENTYA parking lot.

COVENTYA holds an annual Cov-ECO-Challenge where our different facilities propose and implement measurable sustainability projects. At the end of each year each project is graded on value to the triple bottom line and awards are given out to the winning country. Examples of various projects include:

- Switch to high efficiency lighting and motion sensors will reduce KW consumption in one country by 51% and reduce CO2 by nearly 20,000 kilograms.
- Modified freight tactics and transportation policies. Global travel and associated energy consumption and green house gas generation was reduced through increased use of web based conferences. Some countries have implemented fuel efficiency requirements for company funded automobiles. One increased the volume of material per shipment but reduced the number of shipments while another shifted a regular route to capture efficiencies
- Significant reduction in paper use by promoting the use of electronic documents as well as requiring double sided copies and re-use of scrapped paper.

COVENTYA assimilates into the local community.

Being a good neighbour goes beyond meeting required environmental regulations. Each facility supports the local community in numerous ways.

Participating in tutoring and mentoring programs, sponsoring industry/community events and contributing both time and money to worthy causes help COVENTYA maintain a strong connection to the world we live in.
ECO-Products

Surface Finishing, in general, is an eco-responsible process and consistent with sustainable business practices. The many improved characteristics these finishes offer, for example, reduced corrosion and wear, lead to an extended life cycle for many consumer and industrial components.

Also, surface finishing allows the use of lighter metals that would otherwise corrode or wear away, leading to improved fuel efficiency and reduced consumption of energy. This clearly is sustainable business.

Beyond the general eco-benefit that surface finishing provides, COVENTYA offers a myriad of products used within the surface finishing industry that exemplify sustainability and link directly to our ECOLINE mindset. The following pages provide detail on both current and target ECOLINE technology within the specific product lines.
The first step to surface finishing is preparation. Years ago this involved cyanide based cleaners and solvents to remove grease and oils. Today, our industry has embraced a substantially more responsible approach. Solvents find little to no use, being replaced with high detergent emulsifying cleaners, pressure washers and similar processes. Cyanide, although still in some products, has largely been displaced by ecologically friendly alternatives.

COVENTYA is a leader in green preparation technology, offering many eco-responsible products to prepare nearly every imaginable surface from aluminium to zinc die cast. The table below offers just a few examples of these products:

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description [Benefits]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENOVA IMAGEN</td>
<td>Innovation process to prepare <strong>Magnesium</strong> for plating [Chrome free]</td>
</tr>
<tr>
<td>PRESOL/PRELIK</td>
<td>Many cleaners that are free of EDTA, phosphates, some of which can operate at lower temperatures. [complexor free/energy saving]</td>
</tr>
<tr>
<td>PICKLANE 5901</td>
<td>Acid salt for metal activation [free of ammonia,Cr,phosphate,flouride]</td>
</tr>
<tr>
<td>SIRPREP/OPTIBOND CF</td>
<td>Dilute alloy zincates for processing Aluminum [Cyanide free]</td>
</tr>
<tr>
<td>OPTIBOND DX NC</td>
<td>Preparation products for Aluminum [Chrome free]</td>
</tr>
</tbody>
</table>
Decorative finishing is one of the largest surface finishing markets in the world and COVENTYA is a key supplier for many well recognized consumer based companies.

Plating on Plastics (POP) is linked directly to our Decorative line where our finishes add beauty to perfume caps, sanitary fittings, appliance controls and many automotive components. Since most of these applications involve people contact it is vital that they are hyper-allergenic and non toxic.

COVENTYA recognizes that today, consumer safe products are a requirement. Our ECOLINE mindset reminds us that true responsibility goes beyond this. We must ensure that our products are applied in a manner that minimizes and when possible, eliminates any risk to the environment. The products listed below are just some examples of the products that highlight our desire to be stewards of the world we live in:

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description [Benefits]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILKEN ETCH 301</td>
<td>Patented etch for Plating on Plastics [low hexavalent Chrome]</td>
</tr>
<tr>
<td>TRISTAR 300/310</td>
<td>Bright, trivalent Chrome process [hexavalent Chrome free]</td>
</tr>
<tr>
<td>TRISTAR 700/710</td>
<td>Black, trivalent Chrome process [hexavalent Chrome free]</td>
</tr>
<tr>
<td>TRISTAR 300AF</td>
<td>Bright, trivalent Chrome process [ammonia, hexavalent Chrome free]</td>
</tr>
<tr>
<td>DIASTAR 100</td>
<td>High performance alkaline Copper process [cyanide free]</td>
</tr>
<tr>
<td>CUBRAC 120</td>
<td>Satin copper used to replace satin nickel [Nickel free]</td>
</tr>
</tbody>
</table>
Functional

Functional plating includes hard chrome, electroless nickel and tin plating. One could only imagine the corrosion and wear our world would experience if it weren’t for these finishes.

COVENTYA is considered a world leader in functional technologies, most notably in electroless nickel where they are one of only a handful of suppliers approved for use in the data storage industry.

COVENTYA recognizes the responsibility that comes with market leadership. A view to the future of Functional technology reveals the need to address concerns with hexavalent hard chrome plating, energy demands of electroless nickel and the very future of nickel plating itself. Over the years, COVENTYA R&D has successfully overcome these barriers and we are confident in our ability to continue this. The products listed below are just some examples of our eco-innovations.

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description [Benefits]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENOVA EF Series</td>
<td>Lead &amp; Cadmium Free electroless nickel [ELV, ROHS/WEEE compliant]</td>
</tr>
<tr>
<td>ENOVA AF Series</td>
<td>Ammonia free electroless nickel [safe, easy to treat]</td>
</tr>
<tr>
<td>ENDURANCE</td>
<td>Nickel hypophosphite electroless nickel [long solution life]</td>
</tr>
<tr>
<td>ENOVA GR Series</td>
<td>Low nickel electroless nickel [reduced nickel]</td>
</tr>
<tr>
<td>ENOVA NISTRIPR 501</td>
<td>Alkaline Nickel stripper [cyanide free]</td>
</tr>
<tr>
<td>STARGLO SN 100</td>
<td>Pure Tin electroplating process [100% safe metal]</td>
</tr>
</tbody>
</table>
Precious Metals

Precious Metal is where COVENTYA truly shines. Our customers supply some of the most well known fashion and luxury companies in the world and COVENTYA is widely respected as a reliable yet innovative supplier.

These recognizable brand owners can remain focused on style, designing the luxury items of tomorrow knowing that their products are protected with consumer safe, hypoallergenic finishes.

COVENTYA expends significant resources to meet the challenges of this demanding market. As our world evolves and consumers become more enviro-savvy, COVENTYA is there to provide the necessary support.

The products listed below are just some examples of the products that highlight our commitment to future generations:

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description [Eco-Benefits]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMEGAL CDF</td>
<td>High performance gold process [Cadmium Free]</td>
</tr>
<tr>
<td>DECOMET 400</td>
<td>Palladium Indium alloy [Nickel Free]</td>
</tr>
<tr>
<td>RUTHENIUM 420</td>
<td>Black, hypoallergenic and durable [Nickel Free]</td>
</tr>
<tr>
<td>AURALLOY 410/420 LF</td>
<td>White Bronze [Lead Free]</td>
</tr>
<tr>
<td>PARADOR line</td>
<td>Acid gold process [Nickel and Cobalt Free]</td>
</tr>
</tbody>
</table>
Zinc, Zinc alloys and related passivates/topcoats are at the heart of COVENTYA where we derive nearly 50% of our annual revenue.

With over 150 product approvals from leading automakers and OEM’s, COVENTYA Protective products are defending against corrosion in nearly every corner of the world.

As pointed out earlier, extending the useful life of valuable components by applying these protective finishes is fundamentally a sustainable practice.

There has also been a significant eco-evolution in this product line. In 1980, 20 microns of Zinc were applied from a cyanide bath and finished with a chromate that contained 2 mg/dm² of highly toxic Cr+6. Today, customers apply 10 microns of Zinc-Nickel with Cr+6 free passivates. In addition to the dramatic reduction in the use and potential discharge of toxic materials, the finished products see enhanced performance and extended operating life. The products below are examples of COVENTYA protective products that exemplify sustainability.

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description [Benefits]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANTHANE Series</td>
<td>Trivalent Chrome passivates for Zinc &amp; Zinc alloys [+6 Chrome free]</td>
</tr>
<tr>
<td>LANTHANE CF Series</td>
<td>Cobalt free, passivates for Zinc &amp; Zinc alloys [Cobalt/+6 Chrome free]</td>
</tr>
<tr>
<td>ZETAPLUS 465 BF</td>
<td>Acid Zinc Process without boric acid [Boric acid free]</td>
</tr>
<tr>
<td>PERFORMA 560</td>
<td>Ammonia free, Acid Zinc Nickel process [Ammonia free]</td>
</tr>
<tr>
<td>FINIDIP 137 CF</td>
<td>Trivalent Chrome passivate for Zinc [Cobalt and Nickel free]</td>
</tr>
<tr>
<td>LANTHANE 613.3</td>
<td>Trivalent Chrome passivate for Aluminum [Cobalt and Nickel free]</td>
</tr>
</tbody>
</table>
COVENTYA recognizes that water is arguably the most valuable resource on earth. In 2007 we became one of only a handful of companies in the world that offered a comprehensive water treatment line to complement our surface treatment products.

Our WaterCare line is designed to contend with water treatment issues that arise specifically from surface finishing. COVENTYA feels strongly that the best method to waste treat a product will come from those that actually design it.

COVENTYA WaterCare actually extends well beyond surface finishing. Food processing, industrial water treatment, boilers and cooling towers are all applications that benefit from our innovative technology. The very broad product offerings have been distilled down below and illustrate the deep investment COVENTYA has made in protecting our greatest asset.

<table>
<thead>
<tr>
<th>Process/Products</th>
<th>Description/Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMEGA Precipitants</td>
<td>To remove metals from waste streams</td>
</tr>
<tr>
<td>OMEGA Flocculants</td>
<td>To enhance metal removal from waste streams</td>
</tr>
<tr>
<td>OMEGA Inhibitors</td>
<td>To avoid scale build up and corrosion in both heating and cooling systems</td>
</tr>
<tr>
<td>OMEGA Biocontrol</td>
<td>Disinfectant and eliminates formation of biological fouling agents</td>
</tr>
</tbody>
</table>
There are limitations to what surface treatment chemistry can do. To overcome these COVENTYA has introduced innovative and in some cases, patented equipment.

COVENTYA was the first company to provide their customers access to state of the art membrane technology for alkaline Zinc Nickel systems. Selective Separation System (3S) is patented technology whereby porous ceramic and ion exchange membranes prevent anodic oxidation reactions of organic additives and thus, the formation of cyanide.

Without this technology, Zinc Nickel applicators must discard portions of the bath on a regular basis to avoid both a reduction in performance and exceeding allowable cyanide levels in their waste stream.

At first glance, Electroless Nickel (EN) is not considered an eco-friendly process due to its high operating temperatures and limited solution life due to build up of reaction by products and resultant waste. When you reflect on the very low nickel levels in the operating solution and the extended life of plated components one might reconsider this position.

COVENTYA does offer a steady state alternative to conventional EN called ENOVA PHOENIX; an electrodialysis unit that removes built up contaminants through a regular batch treatment. Waste volume is reduced by 60% and nickel waste is reduced by over 90%. The benefit of batch over continuous treatment is clear when you consider much lower energy use and less valuable chemicals consumed.
Customers

COVENTYA is committed to creating a sustainable business through our operations and technology; evidence of such is laid out before you. As a responsible supplier we have an obligation to help our customers as well in their pursuit of these objectives.

We offer this support in the following areas:

- Full and easy access to all product safety and handling guidelines through our MSDS
- Ongoing education program for responsible use and proper disposal of our products
- Assistance in design and operation of waste management systems
- Environmental regulations pertaining to our industry are posted online and readily available

Supply Chain Management

A truly sustainable company understands that it does not operate in a vacuum. A commitment to this business requires a similar commitment from vendors and other partners. COVENTYA has established minimum sustainable requirements for all primary vendors and audits them on a regular basis. Typical areas we measure are:

- Proximity to our manufacturing sites. All else being equal, nearby vendors are preferred as we seek to minimize transport time and fuel consumption
- ISO and/or other certification
- Preferred vendor utilizes Lean Manufacturing practices when possible
- Regular use of electronic documents
Green Vision

COVENTYA is enthusiastic about the future. Not just for our company but for future generations.

Our world is embracing the concept of sustainability and COVENTYA is one of many companies that share this vision. We are REACH compliant and offer ELV/ROHS/WEEE compliant processes in addition to innovative eco-friendly enabling technology. But what about tomorrow?

When we look ahead what do we see?

<table>
<thead>
<tr>
<th>Processes</th>
<th>Energy/Water Conservation/Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Cyanide free processes</td>
<td>- Energy Conservation</td>
</tr>
<tr>
<td>• Cyanide free electroplating</td>
<td>• Process compatible foam blankets</td>
</tr>
<tr>
<td>• Cyanide free cleaning</td>
<td>• Low temperature processes</td>
</tr>
<tr>
<td>- Nickel free process</td>
<td>• Recognition that a problem exists</td>
</tr>
<tr>
<td>• Decorative processes</td>
<td>- Water Conservation</td>
</tr>
<tr>
<td>• Plating on Plastics</td>
<td>• Process compatible surfactants to aid in rinsing</td>
</tr>
<tr>
<td>• High performance Zinc alloys without Nickel</td>
<td>• Low metal processes</td>
</tr>
<tr>
<td>- Chrome free and/or Trivalent Chrome processes</td>
<td>• Improved rack/barrel design</td>
</tr>
<tr>
<td>• Etchants for plating on plastics</td>
<td>• Enhanced education</td>
</tr>
<tr>
<td>• Decorative barrel/rack and Functional</td>
<td>- Waste Minimization</td>
</tr>
<tr>
<td>Chrome</td>
<td>• Improved separation methods</td>
</tr>
<tr>
<td>• Chrome free passivates and/or corrosion</td>
<td>• Extended bath life technology</td>
</tr>
<tr>
<td>enhancers</td>
<td></td>
</tr>
<tr>
<td>- VOC free Zinc Flake processes</td>
<td></td>
</tr>
</tbody>
</table>

Vision

Our world is embracing the concept of sustainable business. A long-term view, how successful business vision statement is an aspirational design.
A long history of innovation
Concern for man and his fate must always form the chief interest of all technical endeavors... Never forget this in the midst of your diagrams and equations.

--Albert Einstein