WeRoll

The new magazine by ARMO

Exploring the qualities of rotational molding

Issue **01.2025**

in this issue:

and much more....

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Editorial

Rotomoulding as it Has Never Been Told

by David L. Smith - ARMO Chairman

I am very happy to present to you the first issue of the new ARMO magazine, an innovative communication tool that 'closes the circle' with respect to the initiatives that ARMO has developed in recent years.

After the creation of the new institutional videos, the development of the RotoTrends newsletter dedicated to the new applications of rotational moulding, and after the birth of the new ARMO website and related social channels, with WeRoll we complete a path of growth and evolution through a modern and innovative communication tool.

With WeRoll, rotational moulding is told, for the first time, in a new, more complete, wide-ranging and engaging way.

For years, a criticism we were often made of was that communication on rotational moulding was closed within a relatively small circle of companies and experts. From this point of view, WeRoll was born with the fundamental objective of telling the world of rotational moulding on a new basis, exploring the multiple connections that this sector has with technological innovation, design, materials research, communication topics and much more.

Each issue of WeRoll will explore all these fundamental components that contribute to making rotational moulding great in the world, giving voice to the protagonists of the sector, to the most visionary entrepreneurs, to international designers, to the innovations that technological research is progressively introducing.

A new and intriguing way to tell our world, because WeRoll is aimed not only at those who already know the technology but also at those who know little or nothing about it, but are interested in understanding its intrinsic potential.

For this reasons, WeRoll will be regularly sent not only to the great world of ARMO members, but also to a very large and international number of designers, R&D Centres and companies who want to know more about this technology.

All this in the awareness that only by making the qualities of rotational technology known to a larger number of companies, designers and operators, we create the basis for a progressive growth of the sector and multiply the possibilities of thinking of new innovative applications.

This has always been the main mission of ARMO and this will be the challenge on which WeRoll will develop its powerful narrative!

Enjoy reading!

Francesco Favaretto

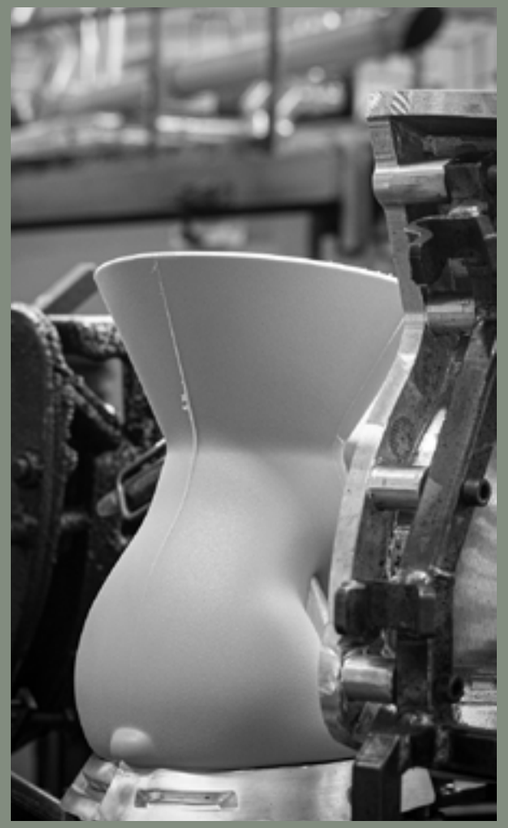
Favaretto & Partners, Padova, Italy

Elizabeth - The Queen of Bowls

www.favarettoandpartners.com

Text by Roberto Gonne

United Pets, the Milanese pet accessory brand, has recently unveiled Elizabeth, a playful dog bowl designed by Padua-dwelling architecture and design studio Favaretto & Partners. This delightful product combines clever design details with practicality, offering a fresh take on an everyday pet accessory.
Inspired by the Elizabethan collar, this bowl transforms an element of discomfort for dogs into an aesthetic and functional solution.
Its conical shape not only resembles the original collar but also serves as a container, integrating a stamped aluminum bowl.
Thanks to its elegance and distinctive design, the bowl is not just a functional accessory, but also a decorative element that harmonizes with contemporary furnishings.



One Product, More Parts

The rotomoulded structure is made of 100% polyethylene, it ensures strength and durability, making the product suitable for everyday use. The bowl is made of stainless steel, with a capacity of 1100 ml, designed to resist scratches and corrosion. It is easily removable for quick and convenient cleaning.
The added height is designed to make eating more comfortable for medium to large dogs by raising the bowl to a better height, helping prevent strain and promoting healthy eating habits.
Blurring the boundaries between pet and human, United Pets produces accessories that are on a par with furnishings in terms of aesthetic quality and functionality to allow pets and humans to coexist in pursuit of shared wellbeing.

“The ``Elizabeth`` raised dog bowl is an innovative furniture accessory. Inspired by the Elizabethan collar, this bowl transforms an element of discomfort for dogs into an aesthetic and functional solution.”

“United Pets creates design products to merge two universes, the animal and the human, within the same place”

Innovate the Pet World

Intelligent design has enabled United Pets to fully meet the needs of a devoted public without excesses while respecting the dignity of the pet by adopting the Less Is More principle. Since its inception, the brand has wanted to create products that combine aesthetics with the quality and strength of the materials without forgetting practicality and safety, investing in research and development of new product lines at the forefront of quality and aesthetics. To this end United Pets relies on successful designers to innovate the pet world.

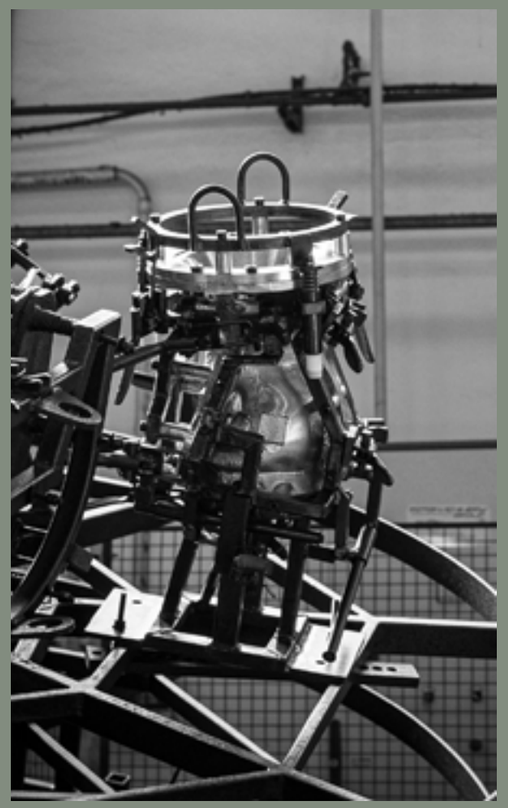
Sustainable Vision

All United Pets items are designed by thoroughly investigating the needs of animals and made to be safe, durable, easy to maintain, versatile and recyclable. The brand, learning from nature where nothing is created and nothing is destroyed, has chosen to use recycled materials and for two years has been investing in research to transform its production chain towards the use of second life materials.

A Few Words with the Author

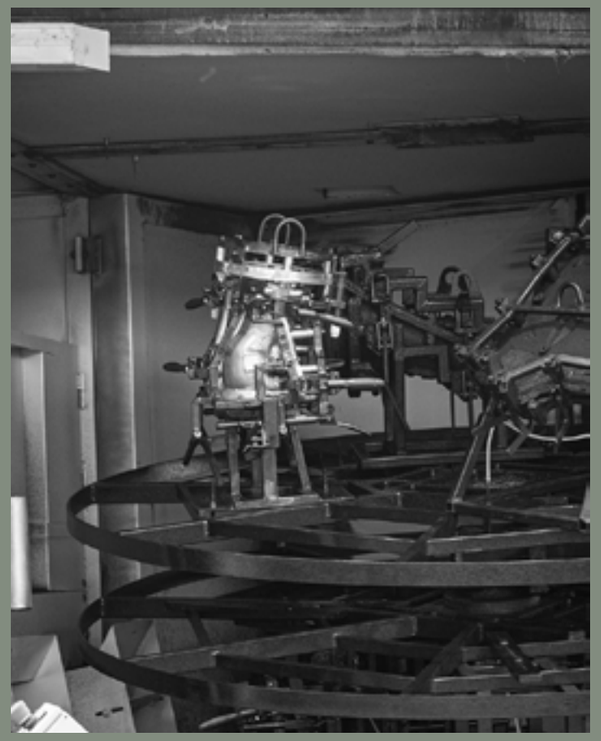
How did the idea for this product come about?
United Pets gave me a precise briefing that called for designing a raised dog feeder. The inspiration came from observing the famous Elizabethan collars that dogs are sometimes forced to use.

What were the objectives of the project?
We didn't want to make a standard object, a simple bowl, but to create a highly iconic product. Through design and rotational technology we created an object with a great personality, recognizable everywhere.



The bowl is not only a functional accessory, but also a decorative element that fits in harmoniously with furnishings.

The rotomoulded structure is made of 100% sustainable polyethylene, ensuring resistance and durability.



Its conical shape not only recalls the original collar but also serves as a container.

The stainless steel bowl, with a capacity of 1100 ml, is designed to resist scratches and corrosion.

2. Inside Matter

Martin Coles,

Matrix Polymers, Liverpool, United Kingdom

New Opportunities for Growth

www.matrixpolymers.com

Interview by Elena Chechet

Sustainability of production processes is certainly one of the key issues for the rotational moulding industry. How do you address this important challenge within your company?

Sustainability is a critical subject for the rotomoulding industry and something we have been focused on for several years and we've written many articles on this subject to try to raise more awareness.
Sustainability covers many areas, including energy inefficiency, long-term competitiveness, recycling and pollution.
We have developed materials that are faster cycling, increasing production efficiency and reducing gas consumption and also higher density grades which enable shot-weight reduction, meaning less plastic is used and also less energy consumed in production.
Conventional rotational moulding machines are very energy inefficient, typically converting less than 10% of the energy used into producing the actual part. We are working closely with industry pioneers to help support the development of new technology which is vastly more energy efficient, particularly in the area of direct electrical heating of moulds.
Recycling of scrap and end of life recycling or rotomoulded parts are also going to become much bigger problems for the industry in the future and we are working on developing solutions in this area.
It is important for everyone to "do their bit" and we encourage all moulders and industry suppliers to join "Operation Clean Sweep" so that we all minimise the loss of pellets and powder into the environment.
We are sponsoring one of our employees Jake Kelly-Walley through a PhD on Sustainability in Rotomoulding at Queen's University in Belfast.

“It is important for everyone to “do their bit” and we encourage all moulders and industry suppliers to join “Operation Clean Sweep” so that we all minimise the loss of pellets and powder into the environment.”

“We also see big scope to transfer existing applications to other regions of the world and would encourage moulders to visit and build up relationships with other moulders in other parts of the world.”

Your company is not only a large polymer producer but also a service provider, assisting your partners from the concept phase to the final product....

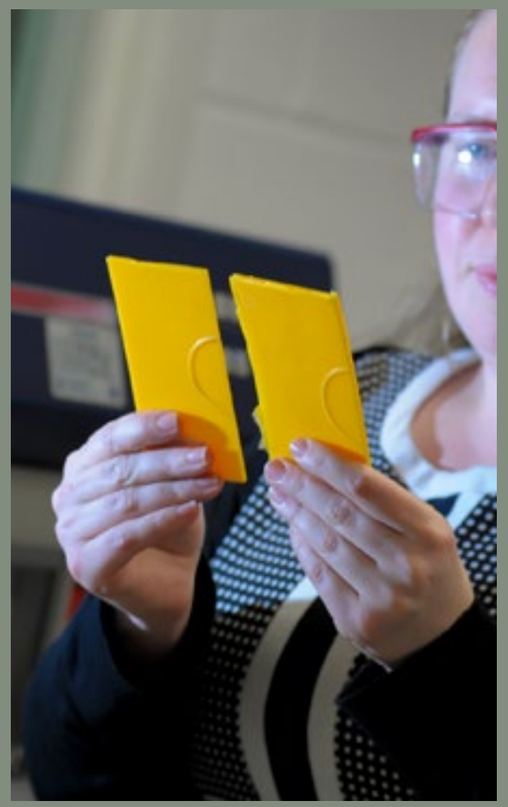
Providing hands-on practical technical support has always been an important part of what we offer, right from the very founding of the company 33 years ago. We are proud of having a large Technical Department that is dedicated to supporting rotomoulders around the world. Our team is led by Aldo Quaratino, who is our Group Technical Director and who has been with Matrix for over 20 years.

How do you see the near future of rotational moulding: do you see it as a technology that has already reached its maximum development or do you see further possible growth margins?

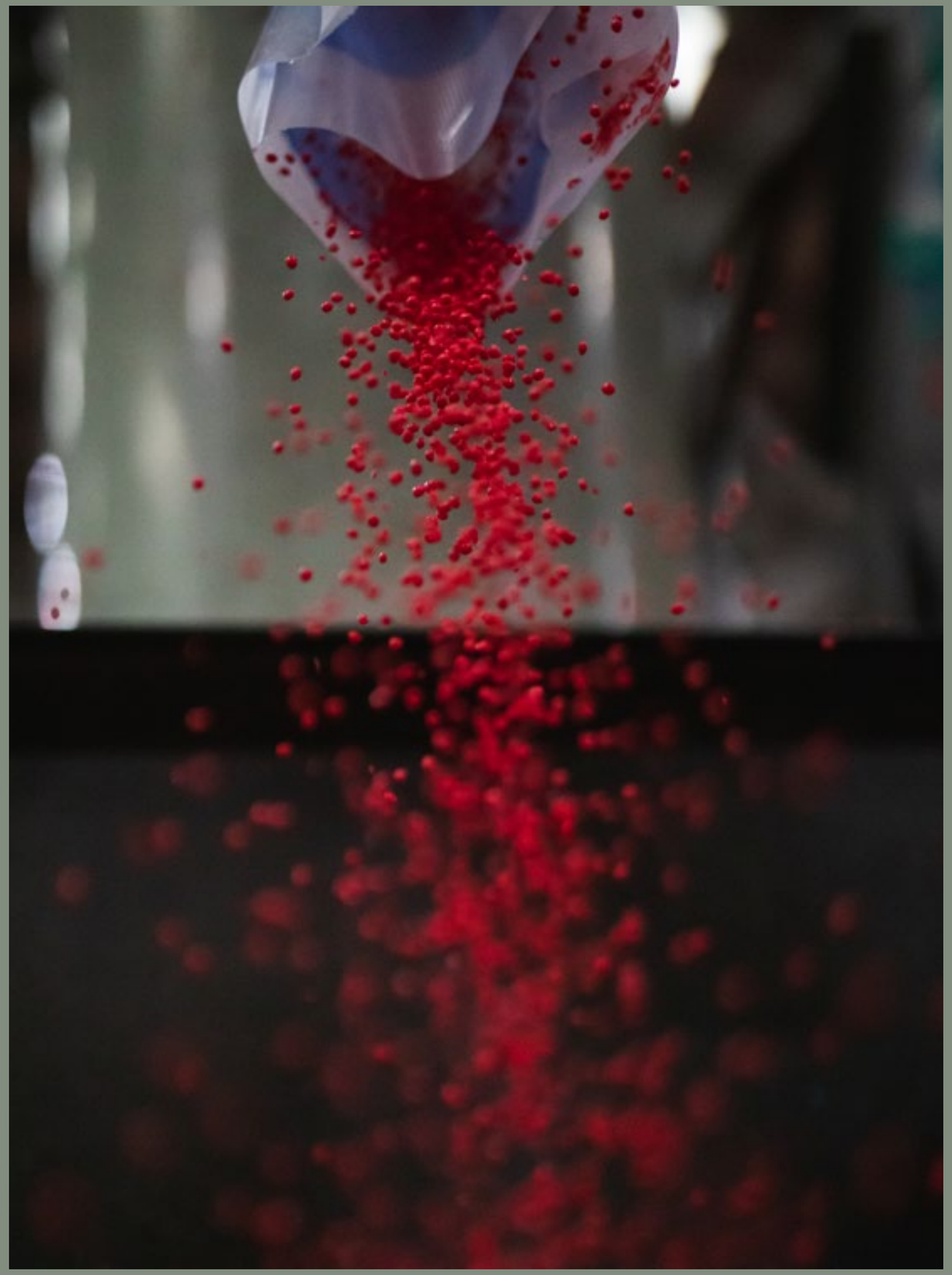
The rotomoulding industry has massive opportunities for growth and we are excited to see how new advances in technology will open up the possibility to make even more complex and demanding applications. The development of lower cost high quality CNC moulds is an example of how technological improvements can lead to substantial growth in certain sectors. We also see big scope to transfer existing applications to other regions of the world and would encourage moulders to visit and build up relationships with other moulders in other parts of the world.

Matrix Polymers represents a successful example of a glocal company, able to expand globally while maintaining a close relationship with the local dimension of your partners: how do you manage to make these two aspects coexist?

We have found that it is important to empower our local management to make decisions and to work closely



“We think that the development of direct electrical heating of moulds at low cost could significantly improve the production environment and economics of the process and would enable the use of different materials and expand the range of applications for the process.”



with local customers. We are fortunate that we have very experienced and exceptional General Managers overseeing our 3 regions – Europe, Asia and Oceania. There is also an advantage in being a global company in that we benefit from global sourcing of polymers and have a perspective on how the rotomoulding industry operates around the world. One of the key benefits to this for our customers is that we frequently introduce moulders from one part of the world to others in another part, which creates additional business for all of us.

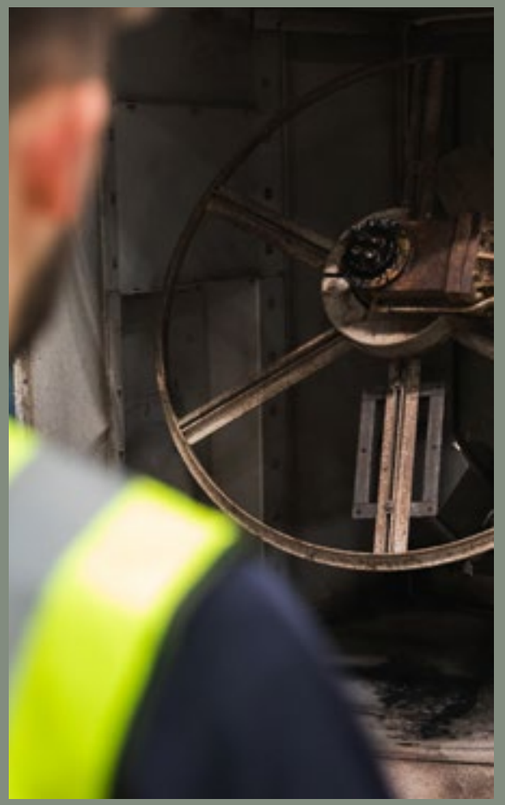
If you try to imagine the future ten to fifteen years from now, what are the trends that, in your opinion, will most characterise the world of rotational moulding?

The problems surrounding labour shortages and labour costs will just continue to get bigger and we therefore expect that automation and finding ways to make life easier in the production environment will become more important. We think that the development of direct electrical heating of moulds at low cost could significantly improve the production environment and economics of the process and would enable the use of different materials and expand the range of applications for the process. Sustainability is going to continue to grow in importance.

Let's talk about the durability of plastic rotomoulded products: where are the polymers that Matrix produces mainly used: to make fast-use products or long-lasting products?

Nearly all rotomoulded are expected to be used multiple times and over many years, sometimes decades. One of the big positives for our process is that products are not single-use and products are

“Effective communication is crucial in an industry driven by innovation. Investing in a clear and forward-thinking communication strategy helps us showcase our advancements, build trust with customers, and strengthen relationships with OEMs.”



acceptable from an environmental perspective.

Rotational moulding is a dynamic technology, constantly evolving thanks to the introduction of new materials: how important is research in this direction for you?

Research & Development is critically important. It is an ever competitive world and the development of new products is essential to stay ahead.

Your approach is to offer solutions customised to the needs of each partner: not generic polymers that fit everyone but a set of tailor-made configurations...

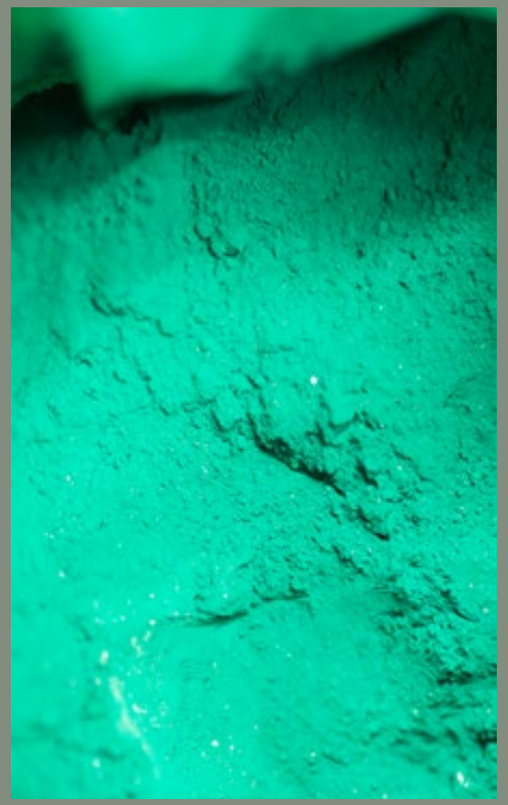
Whilst we make a lot of tailor-made materials we do also supply a lot of more standard grades. We have to maintain good volumes to give our manufacturing plants the economies of scale to remain competitive and we also have to satisfy our polymer producing partners. A typical Polyethylene reactor makes over 1,000 MT of polymer each day!

You are also one of the first companies in the industry to invest considerable resources in communication: how important is it to promote your qualities according to a clear and innovative strategy?

Effective communication is crucial in an industry driven by innovation. Investing in a clear and forward-thinking communication strategy helps us showcase our advancements, build trust with customers, and strengthen relationships with OEMs. By transparently sharing our progress, we not only differentiate ourselves from competitors but also reinforce our position as industry leaders.
A well-structured communication approach ensures that our audience understands the value of our innovations, whether through digital platforms, industry events, or direct engagement. It allows us to highlight the benefits of our technology, demonstrate our commitment to quality and sustainability, and anticipate market needs.
Furthermore, strategic communication fosters collaboration with OEMs, creating opportunities for joint development and future partnerships. By consistently and effectively promoting our strengths, we drive brand recognition, enhance customer confidence, and accelerate industry-wide adoption of our solutions.

Last but not least, do you think it is important to progressively publicise the potential of rotational technology also outside the restricted circle of those who already know it?

One of the issues that rotomoulding continues to have is that it is not known about widely enough, even in the plastics industry. There are companies that have very large injection and blow moulding operations who have never even heard of rotomoulding! It is therefore very important that all of us in the industry promote the process and explain the benefits. We produce publications such as Expanding Horizons magazine which showcases different rotomoulding applications. The objective of this is to help OEMs, and also rotomoulders understand what is possible with the process.



3. Design Protagonists

Eero Aarnio

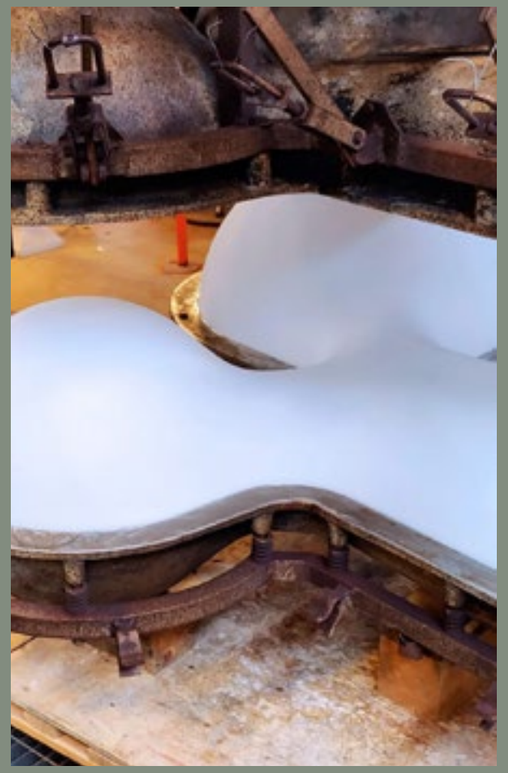
Aarnio Design Studio, Helsinki, Finland

93 Years of Creativity

www.eeroaarnio.com

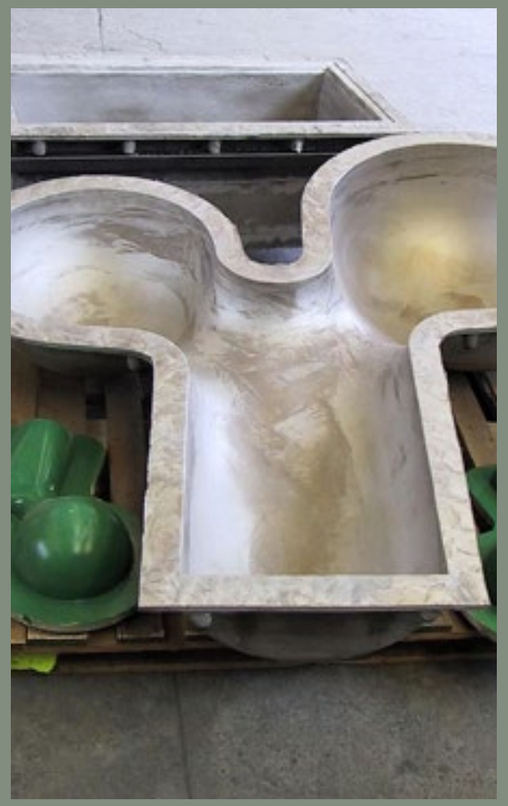
Text by Corinne Lambert

At 93 years old, Finnish design legend Eero Aarnio shows no signs of slowing down. A pioneer of plastic and rotomoulded furniture with a penchant for the playful, Aarnio is the creative vision behind some of the world's most recognisable designs for international brands like Magis, Asko and Adelta.
His work as a designer began in the early 60s, when he opened his own design studio in Helsinki.
Eero Aarnio began experimenting with plastics, vivid colors and organic forms, breaking away from traditional design conventions.
His now iconic plastic creations include the chairs Ball (1963), the Pastil (1968), and the Bubble (1968), as well as the abstract dog Puppy he designed in 2004 for the Magis collection Me Too.
Many of Aarnio's works are included in the world's most prestigious museums, including the Victoria and Albert Museum in London, MoMA in New York and Vitra Design Museum in Weil am Rhein.



The Poetics of Rotational Technology

Studio Eero Aarnio's products are manufactured from start to finish at Melaja Oy's factory in Riihimäki, Southern Finland. The production process is mainly based on rotational moulding through which a large collection of furniture and lighting products has been developed. It all starts with the designs of Professor Eero Aarnio, who has a profound understanding of rotational moulding technology and always seeks to exploit the process's diverse expressive and performance potential. All products designed by Aarnio live in a perfect balance between form and function, with aesthetic solutions that are never superfluous but aimed at communicating the idea behind each object.



“In a 1:1 scale drawing it is easy to see the actual masses of the product and the relationship between them, and the difficult details can be depicted very precisely.”

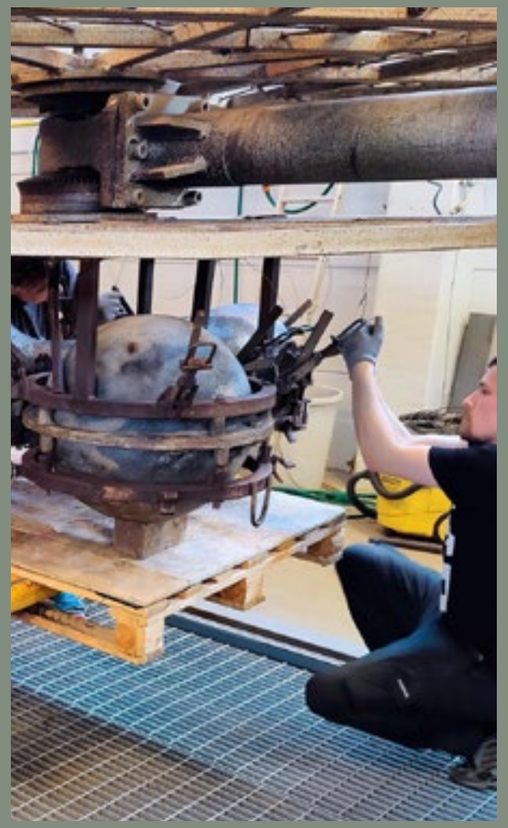
Does the idea for a new design emerge before you start drawing or at the drafting table?

If the new product is interesting, the idea might come to me whenever and wherever. It is not dependent on a place or time of the day. I need my drafting table for carrying out the vision in 1:1 scale. The drawing shows the side, top and front views of the design, so that it can be made into an actual object. In a 1:1 scale drawing it is easy to see the actual masses of the product and the relationship between them, and the difficult details can be depicted very precisely.
On my 1:1 scale drawings, I strive to always draw a small perspective image on the side, so that it would be easier to understand how the product will look. These days I also have small 3D models made out of some of my designs, and they are the best to help convey the final product. But in the earlier days, for example when I designed the Pastil and the Pony, I made 1:1 scale models out of styrofoam and modeling clay, and worked them until the form was complete. An actual model is always better than a two-dimensional drawing.

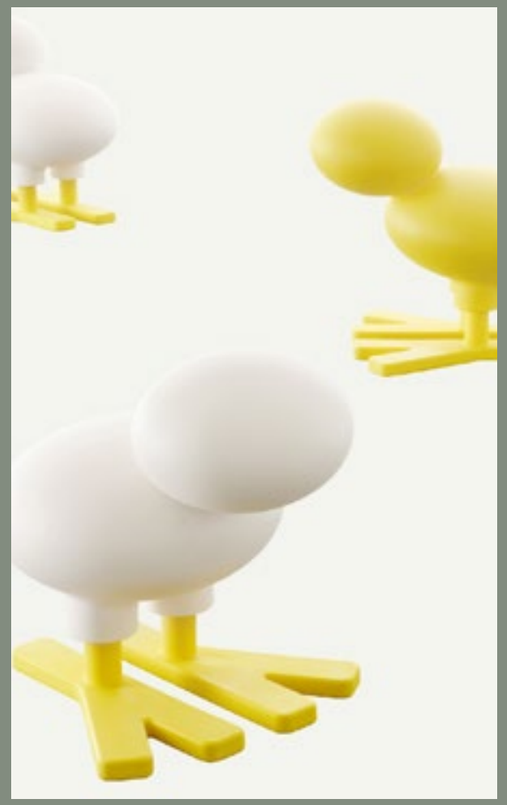
How does color and form relate to one another? Do you feel that certain form has a specific color?

Color and form are either friends or enemies. In some cases, the easiest way to manage this is to accept the natural color of the material. Wood products are a good example of this. However, when I design plastic furniture, such as lamps and children's products, they already have a certain color in my mind. You could almost say that it is their birth color.

Many of your products are shiny, others have a matte surface. How does the surface texture relate to form?



“Color and form are either friends or enemies. In some cases, the easiest way to manage this is to accept the natural color of the material.”



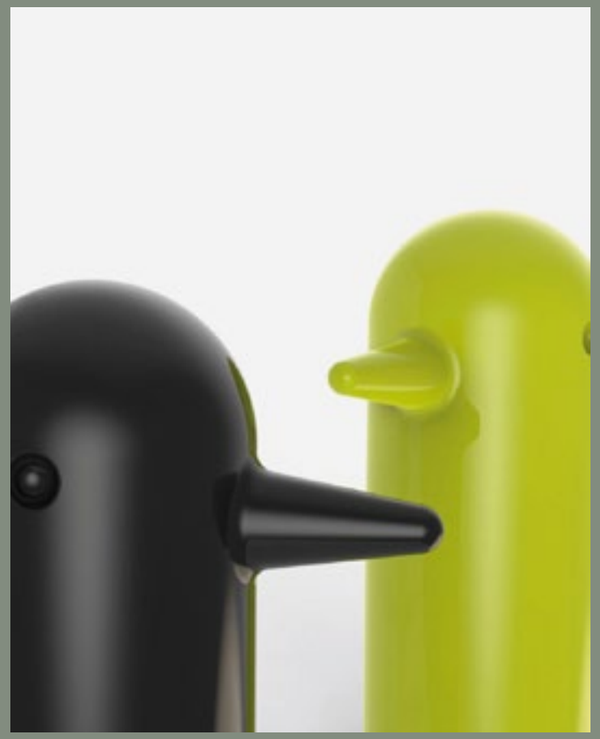
I design products with their original texture in mind. For example, I prefer that textile and wood products retain their natural texture and sheen, and that metal products should always express the feel, look, hardness, and utility of metal. It would not be very pleasant to slice a loaf of bread with a knife the texture of sandpaper.

Your furniture is often quite demanding of its surroundings. It can take up significant space and is not suitable for many locations. Do you see it like this?

As I have gotten older, I have noticed that there is a small artist living inside me who loves to design large, showy pieces which naturally require a lot of space around them. Therefore, the buyer understands the space requirements when purchasing a piece. You cannot change the product and the idea behind it based on their future surroundings, but you can always design a new product for a new setting.

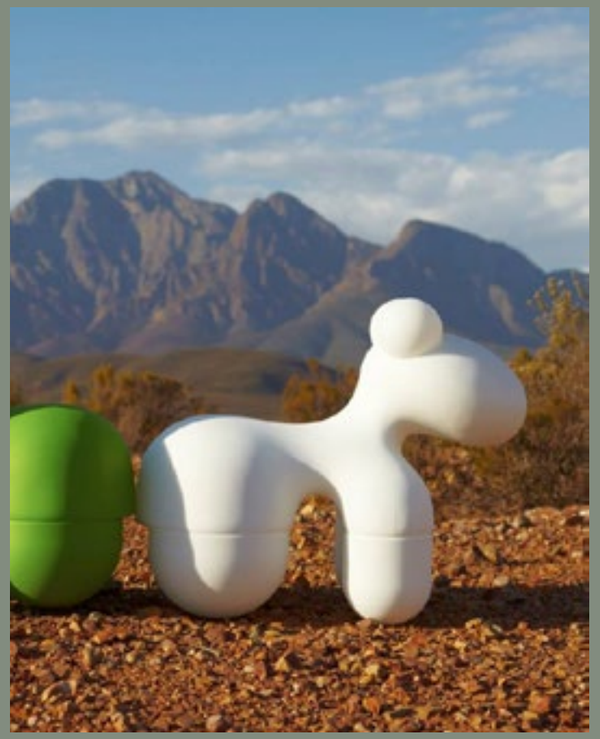
Did the creative side come from your mother or father?

Most likely from my mother, she was more interested in art than my father. Our home life was just normal. My mother worked with a cobbler, she would sew the tops for the shoes at home, and the cobbler made the soles. There wasn't anything creative about it, it was just my mother's job, to make a living. Perhaps the high point of my mother's work was when she was working on the shoes for Aino Ackté, who was one of the most famous opera singers in Finland.



Aarnio's designs pay special attention to detail in the constant search for total quality.

The dual function gives the moulded products a special flexibility.



The products are always designed to be easy to use, cheerful and iconic at the same time.

Each rotomoulded product is the result of a careful study of form and function.

Sarah Morrison

Material Connexion, New York, USA

Colour Trends in Rotomoulding

www.materialconnexion.com

Text by Sarah Morrison

Plastic is material widely used in diverse consumer-facing markets. From consumer electronics to mobility, from toys to kitchen appliances, plastics are all around us and, as such, must fit with our lives and with our preferences. The function is, of course, a main interest when it comes to plastics, but of equal importance for consumer-facing products is the form – the visual appearance of the item is a critical part of the buying decision. For a rotomoulded product to be successful it must not only work as designed but also be visually pleasing and fit in with the latest market trends.

Colours as Designer-Driven

Color trends are a vital and ever-changing part of this. Those of us who are old enough will remember, perhaps not fondly, the avocado bathroom suites, beige appliances and wood-effect plastics of the 1970s and 80s, the vivid colors used in the 90s and 00s, and the more recent trends back to silver and jet black for consumer electronics, for example. Although these colour trends may originate organically, they are also designer-driven and are signalled in advance by product designers and design experts, so that manufacturers can be ready for these colour trends.

1. Earthy Terracotta Colours

One colour trend of 2025 that is bound to gain in popularity is earthy terracotta shades. Increasingly used as a colour for many roto-moulded products, this colour trend is derived from the natural clay of terracotta. With its warmth and chalky tones, terracotta tones have a natural, deep-rooted feel that

“For a rotomoulded product to be successful it must not only work as designed but also be visually pleasing and fit in with the latest market trends.”

“Although these colour trends may originate organically, they are also designer-driven and are signalled in advance by product designers and design experts, so that manufacturers can be ready for these colour trends.”

works well as an elevated take on decorating with neutral colours.

2. Moss Green Colours

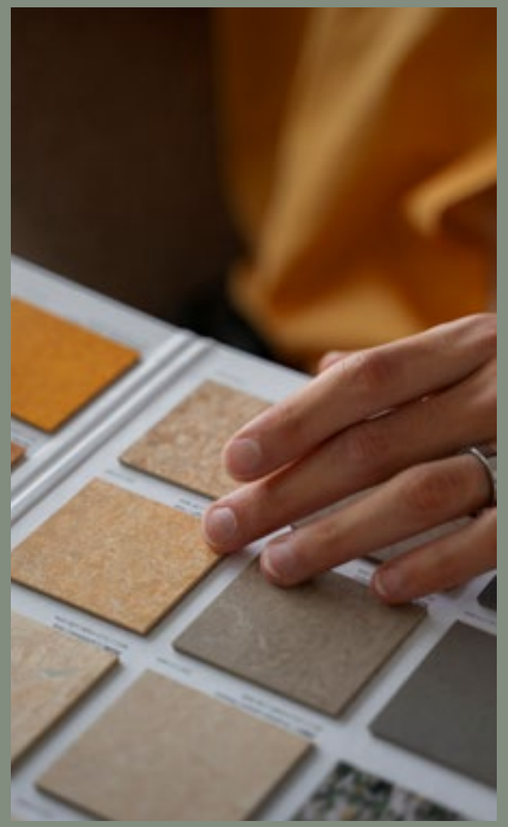
Another colour trend that is expected to gain momentum in 2025 is moss green. A hybrid of dark and light green, moss green is a restful colour that lends itself well to soothing the image of moulded plastic products, particularly for sectors where there is a high value for environmental sustainability issues.

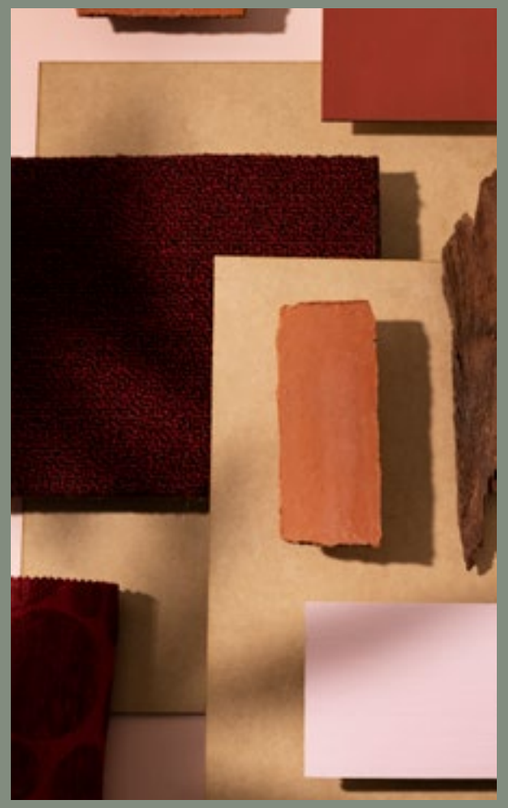
3. Soft Colours

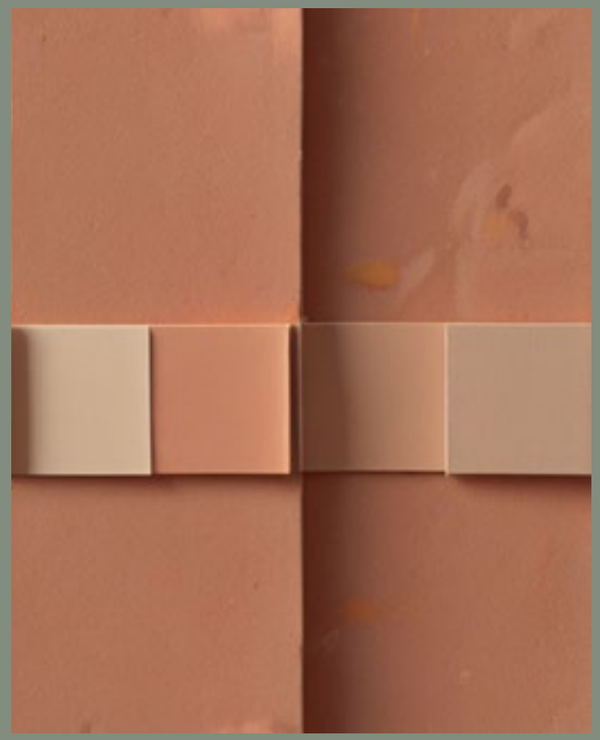
In 2025, mass-coloured moulded plastics will move towards a soft colour palette moving between purple and navy green, including light grey tones. This range of colours allows the shapes of any industrial object to be enhanced while maintaining a sober and elegant character.

4. Neutral Colours

The fourth key colour trend for 2025 is the neutral tonality, which is inspired by industrial tradition and mass-printed products. This colour set moves in a range from medium greys to darker greys. This type of colours creates a neutral skin that characterises rotomoulded products, especially those that do not need to show themselves but work mainly hidden, such as tanks, cisterns and filters.







1. Earthy Terracotta Colours

2. Moss Green Colours

3. Soft Colours

4. Neutral Colours

5. Visionary Entrepreneurs

Jean-Luc Thuliez

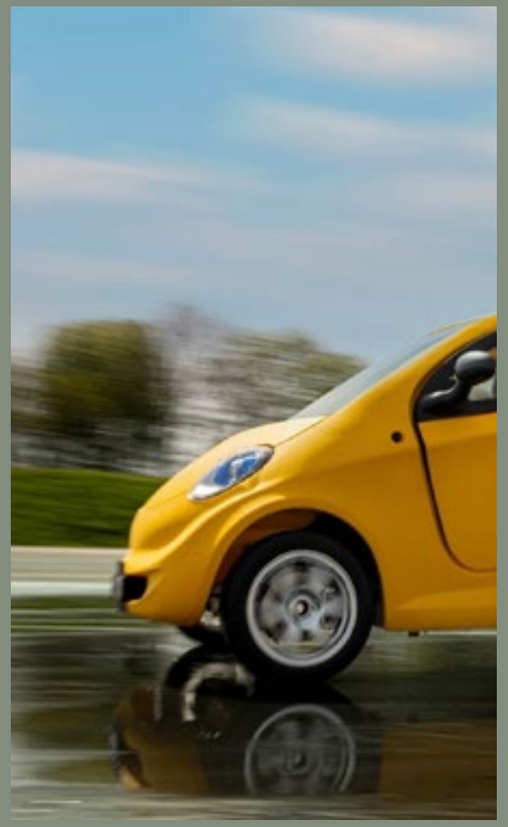
SoftCar, Fribourg, Switzerland

Innovation in One Car

www.softcar.com

Text by Riccardo Giovanetti

Jean-Luc Thuliez is the visionary entrepreneur who in recent decades has developed a series of innovative vehicles capable of introducing a new concept of mobility. The common theme that characterises Thuliez's entrepreneurial journey is the search for new transport models that reduce environmental impact, optimise production costs and innovate the production system. From this point of view, rotational moulding technology has proved to be an excellent resource for Thuliez through which to rethink car bodywork, creating innovative vehicles in form and content. Starting with the great experience accumulated with the design of the Swatch Ace in 1995 and the MCC Smart in 1997, the path of research and development continued over the years with the production of the Cree micro-car in 2001 until the development of the Total Car in 2011 and The Aventor in 2015.



The Cleanest Car in the World

The final step in this long entrepreneurial journey was officially inaugurated in 2024 with the presentation of the new SoftCar at the Paris International Motor Show. The SoftCar is a response to the needs of today's cities, which are increasingly committed to reducing emissions and promoting electric and environmentally friendly transport solutions. This all-electric vehicle was designed with the urban lifestyle in mind, combining compact dimensions with an ultra-modern and innovative design.
Rotovia played a central role in the development of this ambitious project: to create the cleanest car in the world, using an innovative rotomoulded body. This unique process, which replaces steel with a one-piece body, offers exceptional mechanical performance

“Our vehicles are the result of rigorous eco-design, using recyclable materials and decentralised manufacturing. Thanks to our innovative business model based on local micro-factories, we reduce pollution and CO2 emissions while creating local jobs and boosting the circular economy.”

“Building an industry for safe, high-quality, super ecological, recyclable, and affordable vehicles that can be manufactured anywhere in the world, based on a business model that is as innovative as the product.”

and meets the highest aesthetic standards. The rotomoulded parts were produced in Rotovia France. Thanks to the use of rotomoulding technology, the Softcar vehicle not only reduces its carbon footprint, but also has ex-ceptional aerodynamics and durability that enhance its performance.

Less Components, More Content

The interior and exterior of the car body are rotomolded in a revolutionary polymer, in one single part. This principle allows us to drastically reduce the number of parts and increase the moment of inertia of the car body in case of a crash. Combined with the chassis, it allows us to create a lightweight, recyclable architecture. The low-carbon footprint automobile factory occupies a minimal area (5000 m²) and allows for the production of fully electric SoftCar vehicles or those with a natural gas range extender. This site includes an assembly space where no steel transformation operations are carried out, thereby largely eliminating toxic emissions, the production of chemical waste, noise pollution, vibrations, dust, and water consumption, making it feasible for the factory to be located close to or even within residential areas.

Rotomoulding, the Key to Lightweight and Durable Components

Why rotomoulding? Rotomoulding technology, used by Rotovia, enables the production of lightweight parts, ideal for electric vehicles where weight has a direct impact on range. Softcar components made using this technology are not only resistant to damage but also lighter than traditional components, significantly improving the energy efficiency of the vehicle. The process also allows for precise design reproduction and flexibility in the use of materials.

Cree SAM, is a zero emission battery electric vehicle. It's a three-wheel car, with two seats in a tandem arrangement. 2011

Total Car, electric city car with some body parts rotomoulded using a modified polyethylene alloy and PLA. 2011

SoftcarUpgo is based on an aluminium chassis covered with a recyclable thermoplastic. 2015

Totally recyclable, Aventor's bodywork is made from bio-polymers and rests on an aluminium chassis. 2014

6. Discover the Technology

Françoise Pascal

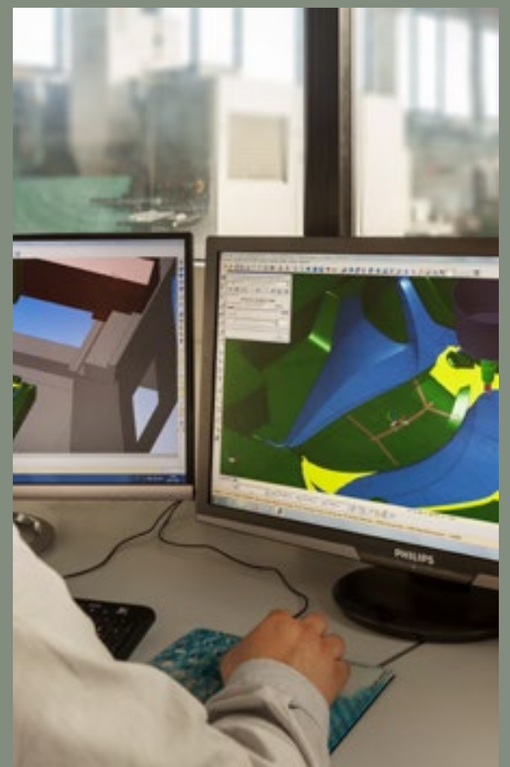
MC, Lyon, France

Reverse Engineering

www.armo-global.org

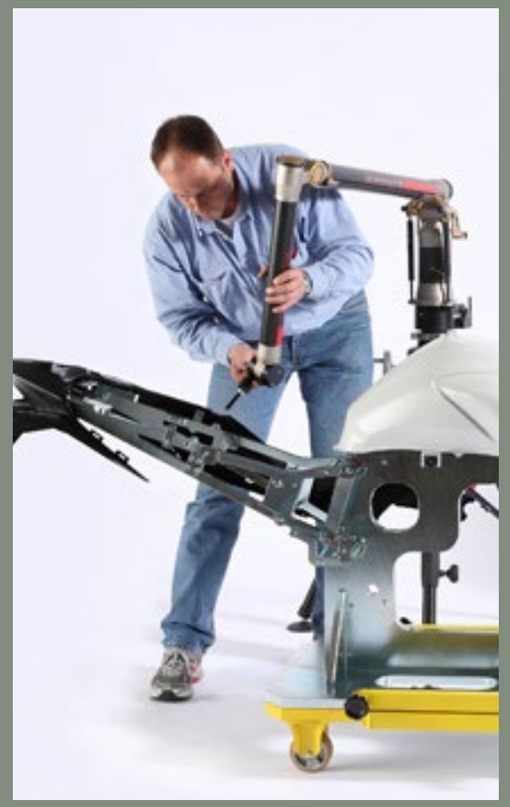
Text by Françoise Pascal

Reverse engineering (RE) in rotational molding has become an essential method for reproducing, improving and optimizing products. It is a powerful and highly efficient tool for recreating the complex geometry of products for which a detailed design is not available. Through reverse engineering, the morphological structure of an object can be replicated with a high degree of accuracy.
Applying the reverse engineering process requires a thorough understanding of the design, manufacturing, assembly and maintenance phases of molds.
This process not only helps to reproduce existing plastic products, but also offers opportunities for cost reduction, improved manufacturing technology, sustainability and improved product quality.
Within the Reverse Engineering process, we can identify four fundamental phases that distinguish the method, each of which plays a fundamental role in obtaining a high-quality result.



1. Data Collection and Analysis

The analysis of morphological, material and structural data related to the part to be replicated represents the first and most critical phase of the reverse engineering process. The accuracy of this phase directly affects the entire process. It begins with the precise measurement of the dimensions, material composition and structural properties of the existing product. Subsequently, it is essential to obtain information from the process, such as temperature and pressure, and test the product in its intended function.
- Contact methods involve the direct physical measurement of the skin of the product.
- Non-contact methods use advanced tools, such as 3D scanners like the Creaform Scanner and the FaroArm



“Applying the reverse engineering process requires a thorough understanding of the design, manufacturing, assembly and maintenance phases of molds.”

“Prototyping allows engineers to test the new design’s performance under real-world conditions. ”

that remotely capture the geometric structure of the part. These tools create a highly accurate digital representation of the product, known as a "point cloud." -Destructive methods require the physical decomposition of the product to measure its internal structures.

2. Material Definition

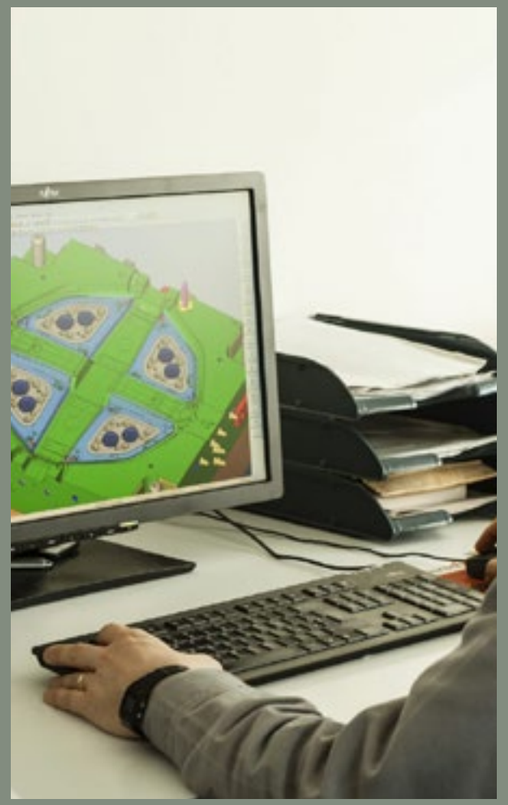
The aim of this phase is to obtain a material corresponding to the performance characteristics desired by the customer. This ensures that the recreated product offers the same performance as the original. Not only mechanical properties are important: rheology, PvT (pressure, specific volume and temperature) and/or polymerization/crosslinking information are also essential to feed the software and obtain accurate predictions.

3. Simulation and Design Definition

Once the data has been collected and the material has been characterized, the next step is to use simulation tools to recreate the manufacturing conditions. This simulation allows engineers to adjust the material properties and refine the product design until the digital model matches the performance of the real product. Simulation is also essential for design optimization, allowing manufacturers to identify areas where they can work to improve the performance of the rotomolded product.

4. Prototype Validation and Refinement

The final stage involves creating a prototype after completing the simulation and optimization process. This physical representation of the optimized design is essential for validating the simulation results. Prototyping allows engineers to test the new design's performance under real-world conditions.



7. Telling ARMO

Michelle Rose

Association of Rotational Moulders Australasia

Immersive Experiences

www.rotationalmoulding.com

Text by Elena Chechet

Michelle, you are CEO of the Association of Rotational Moulders Australasia: how has your association evolved over the years? What are the main changes?

ARMA has evolved significantly, continually aligning with the dynamic needs of our members and the broader rotational moulding industry. While we initially focused on networking, standards, and codes, we've expanded our scope to include stronger advocacy, technical training, and international collaboration. Five years ago, when I stepped into the CEO role, I worked closely with the Board of Directors to streamline our services—returning to the essentials and establishing a solid foundation for new growth. This reset allowed us to sharpen our focus on what truly matters: being the voice of the industry across the oceanic region. We developed and maintained relationships with all rotational moulding companies, regardless of their membership status, ensuring a unified approach to addressing industry challenges. For the first time, we prioritised getting into the factories—witnessing firsthand the unique challenges and innovations within rotational moulding. These visits provided invaluable insights into what was needed, allowing ARMA to tailor our support and resources more effectively.

ARMA has always been very active in organising RotoTour, taking local entrepreneurs to explore companies in various countries: how important is it to get to know first-hand the different companies working in these countries?

There's no substitute for seeing how things are done in different parts of the world. Since 2005, the Association

“The real power of Rototour lies in the connections they create. Attendees don’t just return with fresh ideas; they come back with new business alliances, collaboration opportunities, and even staff exchanges.”

of Rotational Moulders Australasia (ARMA) has been injecting energy and innovation into the industry with our legendary Rototour. These aren't just trips—they're immersive industry experiences that blend factory deep-dives, high-level networking, and a touch of cultural adventure.

The real power of Rototour lies in the connections they create. Attendees don't just return with fresh ideas; they come back with new business alliances, collaboration opportunities, and even staff exchanges. We've seen partnerships form on these tours that have led to project collaborations, licensing deals, and long-term professional relationships that continue to shape the industry.

But it's not all about business. Travel is about experiences, and we make sure these tours deliver on that front too. Whether it's exploring a new city, sharing laughs over a local meal, or standing in awe of a cutting-edge facility, Rototour create the kind of moments that stick with you.

How do you see the near future of rotational moulding: do you see it as a technology that has already reached its maximum development, or do you see further possible growth margins?

Rotational moulding still has plenty of room to grow. While the process has been around for decades, innovation continues to push the boundaries of what's possible. Material science is advancing, automation is becoming more accessible, and new manufacturing techniques are opening up fresh opportunities. We're far from reaching the peak—if anything, we're on the brink of another evolution in rotomoulding.

One of the most exciting areas of growth is in material development. The demand for more sustainable options—such as bio-based resins, recycled content, and performance-enhanced polymers—is driving research and innovation. As these materials improve, they will expand the capabilities of rotomoulding, allowing for stronger, lighter, and more environmentally friendly products.

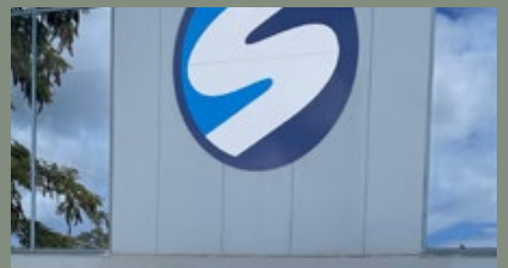
If you try to imagine the future ten to fifteen years from now, what are the trends that, in your opinion, will most characterise the world of rotational moulding?

The future of rotational moulding will be shaped by technological advancements, sustainability driven innovations, workforce transformation, and increased global collaboration. While the fundamentals of the process will remain, the way we approach materials, manufacturing, and market expansion will evolve dramatically.

Looking ahead, the rotational moulding industry will be defined by its ability to innovate, adapt, and embrace change. Over the next 10 to 15 years, we will witness major advancements in automation, sustainability, materials, and workforce development, all of which will drive the industry toward new opportunities and greater global recognition.

The future of rotational moulding will be shaped by stronger international collaboration between industry associations, research institutions, and manufacturing groups. We will see more cross-border partnerships in research and development, allowing companies to share breakthroughs in automation, materials, and sustainability.

The challenge, however, will be ensuring that businesses are ready to invest in these changes. Companies that embrace new technologies, rethink traditional manufacturing approaches, and actively engage with industry developments will thrive in this new era of rotational moulding.



“Rotational moulding still has plenty of room to grow. While the process has been around for decades, innovation continues to push the boundaries of what’s possible.”

What are the main challenges that this sector has to face in order to further develop the technology?

While rotational moulding has distinct advantages, it still faces major challenges that must be addressed to secure its long-term growth and competitiveness. One of the biggest hurdles is keeping pace with automation. Compared to injection or blow moulding, rotomoulding has been slower to integrate automation and digitalisation. This is partly due to the nature of the process itself, but also because the cost and complexity of implementing advanced robotics and AI-driven quality control have remained barriers for many manufacturers. As the industry evolves, finding ways to streamline operations through smarter technology will be crucial.

And which is your point of view about sustainability?

It's another pressing challenge . Governments worldwide are tightening environmental regulations, and industries are under increasing pressure to reduce their carbon footprint. Rotational moulding is an energy-intensive process, and with governments moving toward zero-gas policies, we face a real issue: how do we efficiently power our machines in a way that aligns with these restrictions? While sustainable fuel sources and electrification are being explored, the reality is that upgrading existing machinery—or even purchasing new, more efficient systems—is a costly endeavour. The technology is advancing, but the financial burden of transitioning to low-emission operations is holding many businesses back. Ensuring that policy shifts and technological developments move hand in hand will be essential for the industry's survival and success.

What other key issues do you see for the rotational industry?

Workforce shortages and skills retention pose yet another challenge. Unlike some other manufacturing sectors, rotomoulding doesn't have a highly visible or 'glamorous' reputation—it's physically demanding, hot, heavy work, often lacking formalised credentials or clear career pathways. This makes it difficult to attract new talent and even harder to retain experienced workers. High staff turnover not only affects productivity but also stifles innovation, as businesses struggle to build long-term expertise within their teams. If we want to future-proof the industry, we need to actively work on raising its profile, creating structured training programs, and providing clear career progression opportunities—especially for those working on the factory floor.

In recent years, the rotational moulding industry has progressively occupied various market niches with new products: is there room for further growth in the sector?

Without a doubt, the future of rotational moulding is one of expansion, not limitation. The industry has already made impressive strides in penetrating new market niches, but there's still significant untapped potential. In recent years, we've seen major growth in sectors like construction, medical, automotive, and renewable energy. This is just the beginning. As design engineers and manufacturers continue to explore the unique benefits of rotomoulding, new applications will emerge in high-tech and sustainability-driven fields.

8. International Events

ARMO

Affiliation of Rotational Moulding Organisations

Calendar

www.armo-global.org

ARM Annual Meeting

Dallas, Tx Sep 29 – Oct 1, 2025

The Association of Rotational Molders brings together hundreds of rotomolders and their suppliers to learn from one another, troubleshoot, and network. Molders call their Annual Meetings "the most informative conference" they have ever been to and they report that it's a very interesting event.
www.rotomolding.org

RotoTour East Asia

East Asia Aug 23 – Sep 4, 2025

Since 2005, the Association of Rotational Moulders Australasia (ARMA) has been shaking things up with our legendary Rototours and 2025 is no exception. This time, they are heading to the vibrant heart of East Asia, with an unforgettable journey through Taiwan, South Korea, and Japan.
www.rototour.com

Troubleshooting Surface Porosity and Voids

October 2, 2025

In this session rotomoulding consultant Ian Hansen will provide you with his expert view on troubleshooting on the important topic of surface porosity and voids. H e will tackle topics including Surface porosity (pinholes) versus bubbles and the key causes of surface pinholes.
www.armo-global.org

9. Affiliates

AFR - Association Francophone du Rotomoulage www.rotomoulage.org

ARM - Association of Rotational Molders www. rotomolding.org

ARMA - Association of Rotational Moulders Australasia www.rotationalmoulding.com

ANIPAC - The Mexican Plastic Association www.anipac.org.mx

ARMSA - Association of Rotational Moulders Southern Africa www.armsa.co.za

ARM-CE - Association of Rotational Moulders Central Europe www.rotational-moulding.de

StAR - Society of Asian Rotomoulders www.starasia.org

Nordic ARM - Nordic Association of Rotational Moulders www.nordicarm.org

BPF - Rotational Moulders Group www.bpf.co.uk

IT-RO - Italia Rotazionale www.it-ro.it

RPC-CPPIA www.crotomolding.com

Rotopol Association www.rotopol.pl

ARMO

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