



CELEBRATING 25 YEARS

ALWAYS INNOVATIVE

NEW TECHNOLOGIES · NEW MARKETS · NEW IDEAS



Dear friends, colleagues, clients and suppliers

With great pride and joy I have the pleasure of announcing that the STRATEGIC & OPERATIVE SOLUTIONS ITALIA SRL – SOSITALIA – celebrates 25 YEARS of business; 25 YEARS spent as a partner alongside the most prestigious faucet manufacturers in the world. In these years I have come to learn more about many new countries, their cultures and traditions, and their diverse business perspectives. I have personally experienced the epic changes of the last 25 years, from the birth of the digital era to the evolution of new production sources in the faucet industry. I have involved and introduced the main Italian and international faucet manufacturers to the knowledge and understanding of a rapidly changing world, evidencing both problems and opportunities that emerged. I connected with many people who helped me to grow culturally and professionally, transferring this

know-how to my associates in Italy and abroad with aims of continuously improving products, service and skills for the benefit of our clients and suppliers. I dedicate much appreciation to those of you that placed such faith and trust in SOSITALIA. In viewpoint of being ALWAYS INNOVATIVE, on the occasion of the ISH 2019 Fair in Frankfurt, we present projects concerning the use of new technologies and new uses of materials in the faucet production. Through the process of precision casting, using stainless steel as a raw material, and the process of injection moulding, using zamak as a raw material, our horizons expand for the production of parts, components and faucet bodies. We are also one of the first in the world to present various proposals for bathroom and kitchen faucets, made with METAL 3D PRINTING (SLM) developed in cooperation with the POLITECNICO DI MILANO. All these proposals are aimed at the use of technologies and materials that meet the increasingly stringent international regulations regarding drinking water and environmental protection. This is a theme SOSITALIA takes into great consideration because of its fundamental importance for future generations worldwide.

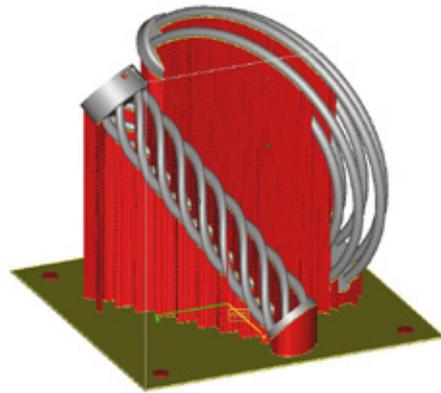
SELECTIVE LASER MELTING TECHNOLOGY (SLM)

For 4 years SOSITALIA has started a course of study and research on this type of technology to be applied to the sanitary fittings industry. The research and knowledge of machinery and materials, participation in the most advanced world conferences, the learning of new design techniques and the realization of some samples / concepts, have characterized the first phase of this project. Another, fundamental step of this project was signing the collaboration agreement 2 years ago with the Department of Mechanical Engineering from the POLITECNICO DI MILANO. Thanks to this collaboration, all the problems of planning and design, printing, post processing (namely mechanical processing, polishing and surface treatments) and the engineering of the product, were addressed in order to make it functional and available for industrialization and production 100% Made in Italy.

INTRODUCTORY PROTOTYPE

This is the first approach to 3D metal printing to verify the technical possibilities of producing traditional faucets in stainless steel 316L - 1.4404 from the metal 3D printing process.

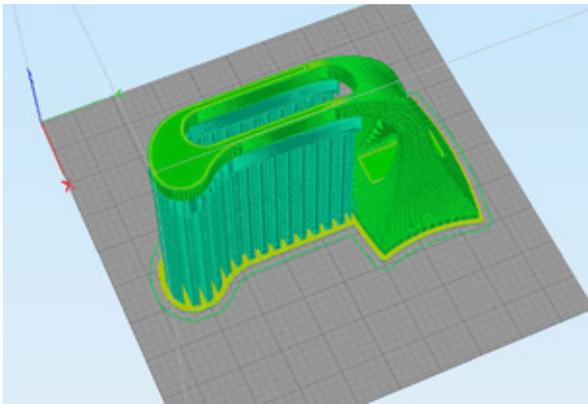
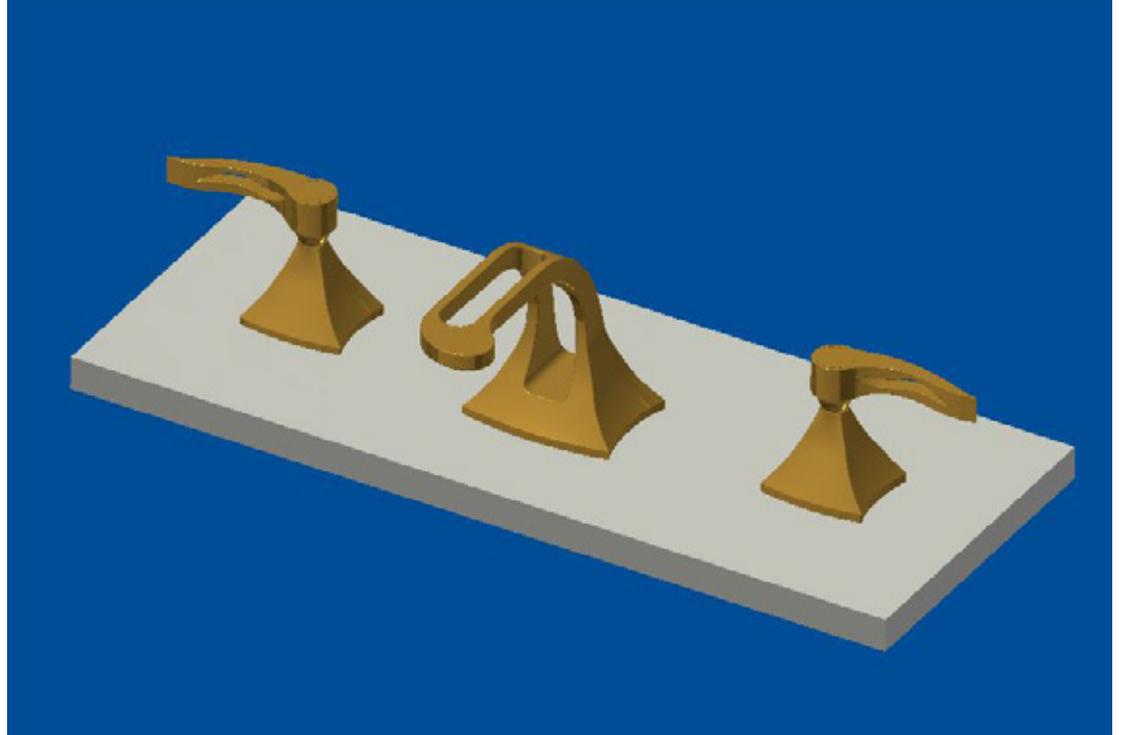




DESIGN ENDEAVORS

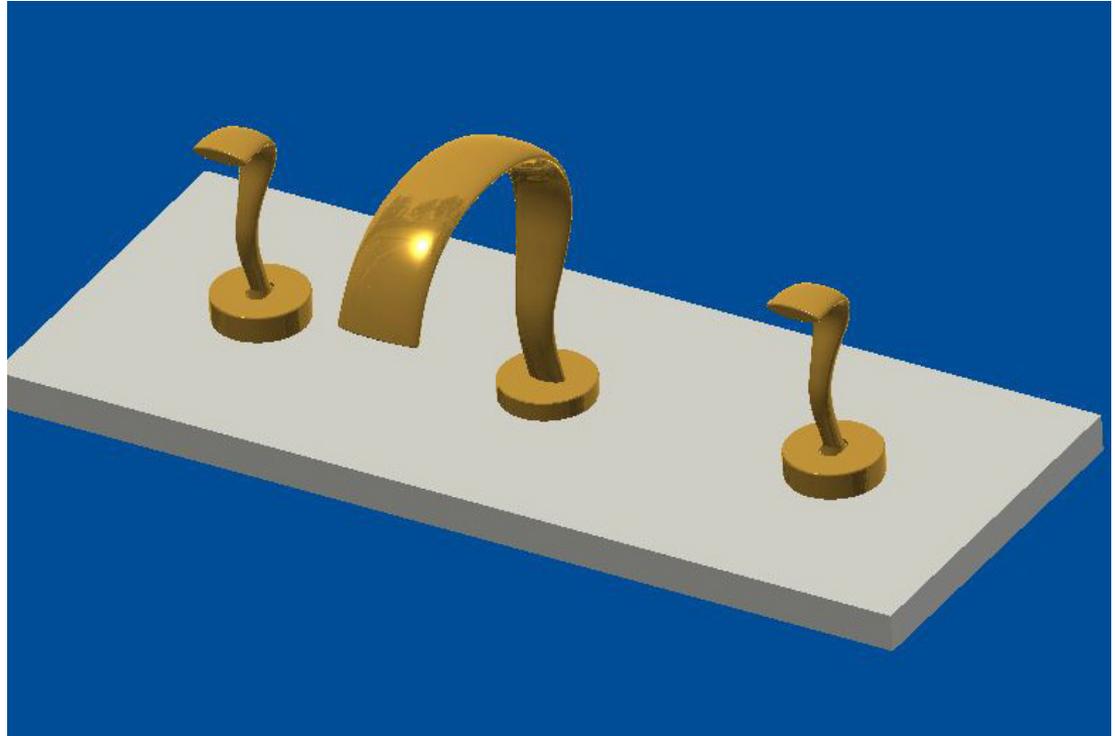
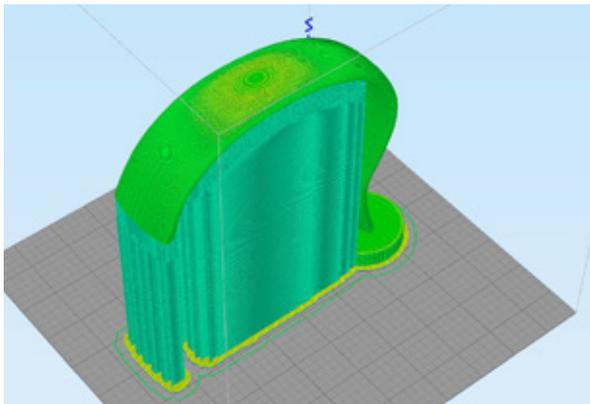
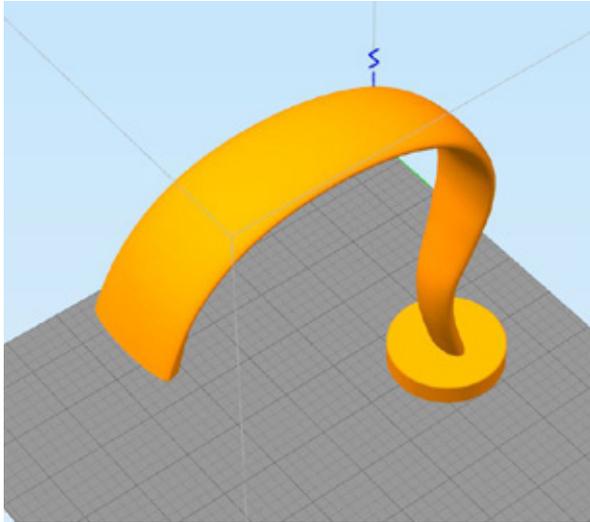
An exploration of unique and elaborate kitchen faucet designs that are technically devised also for the faucet's functionality with its componential requirements.





DESIGN EXPANSION

Extending the design from kitchen mixers to bathroom faucets emphasizes the significant value of 3D metal printing design liberty in all types of product ranges.



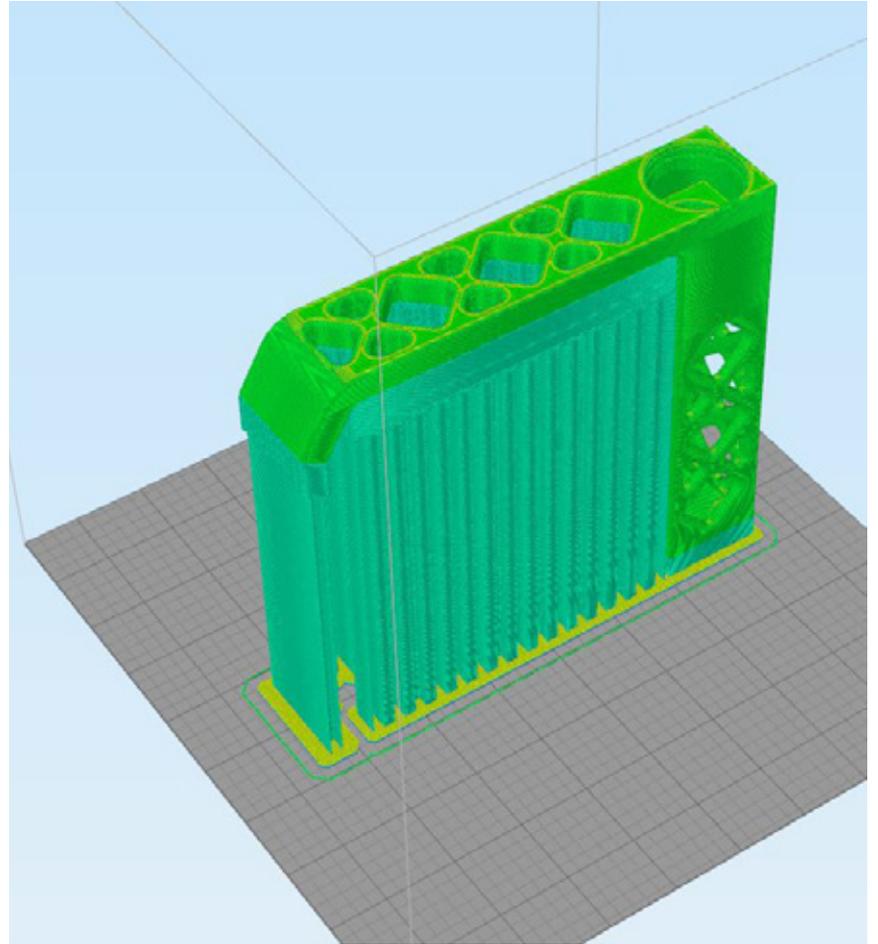
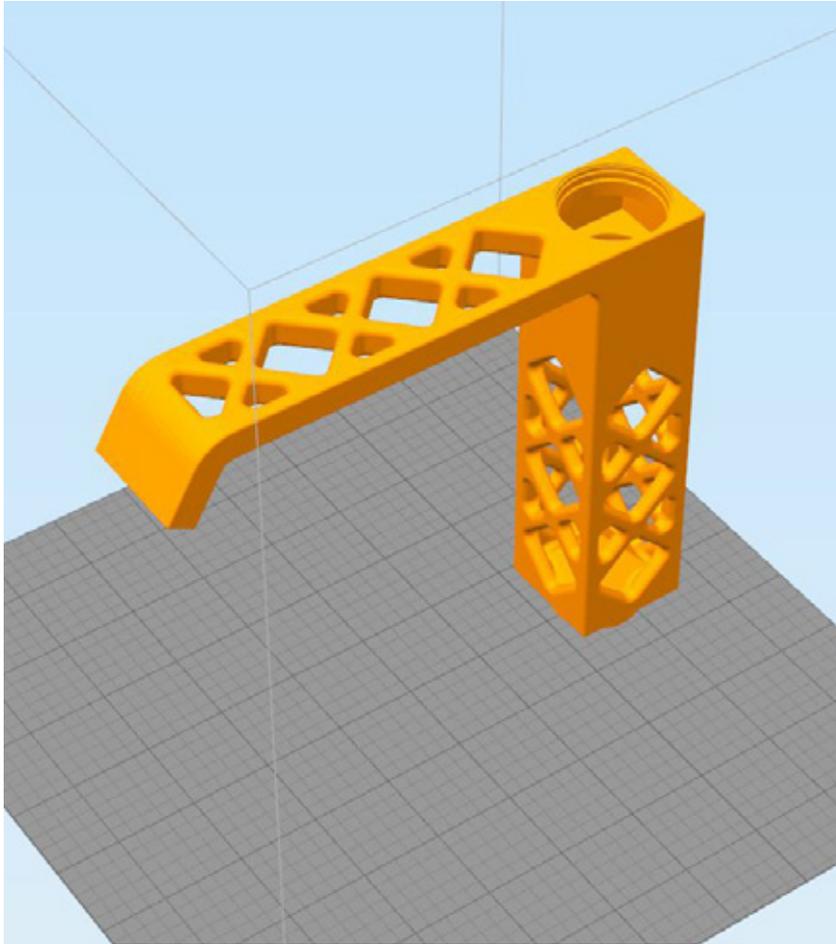
COMPLEX PRODUCT MADE EFFORTLESS

From a productive point of view, metal 3D printing breaks technical barriers. The design potential from 3D printing acknowledges the simplicity of smooth and curved features.



RESEARCH AND DEVELOPMENT OF THE NEXT GENERATION

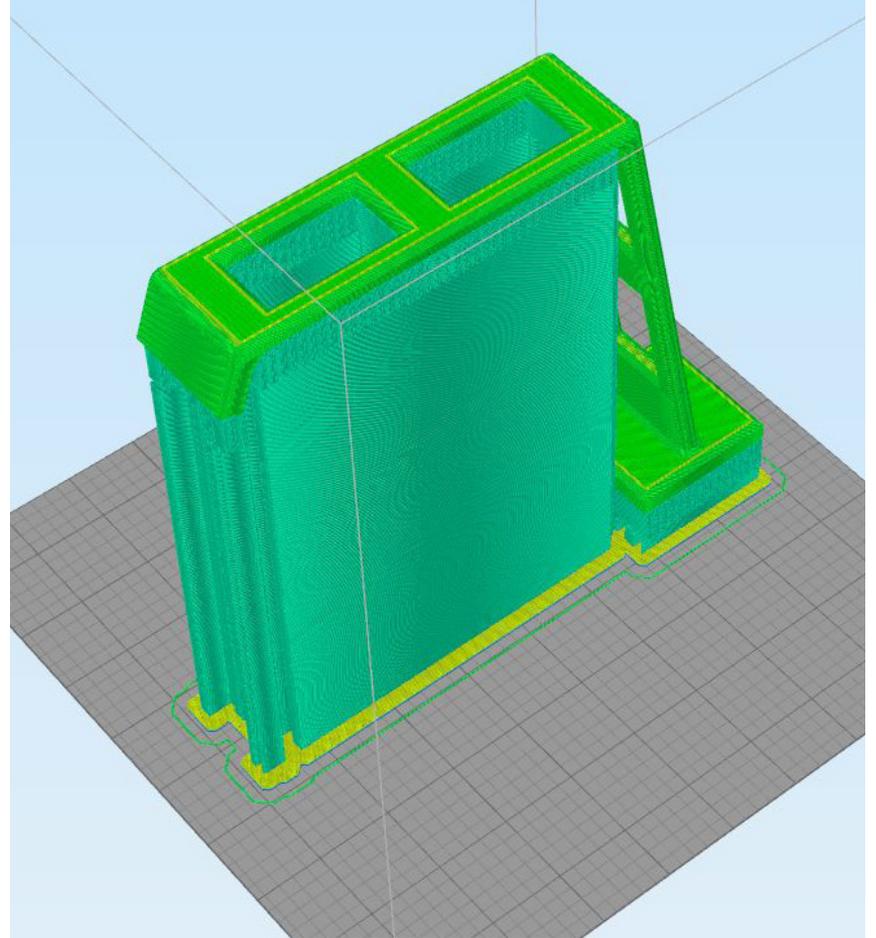
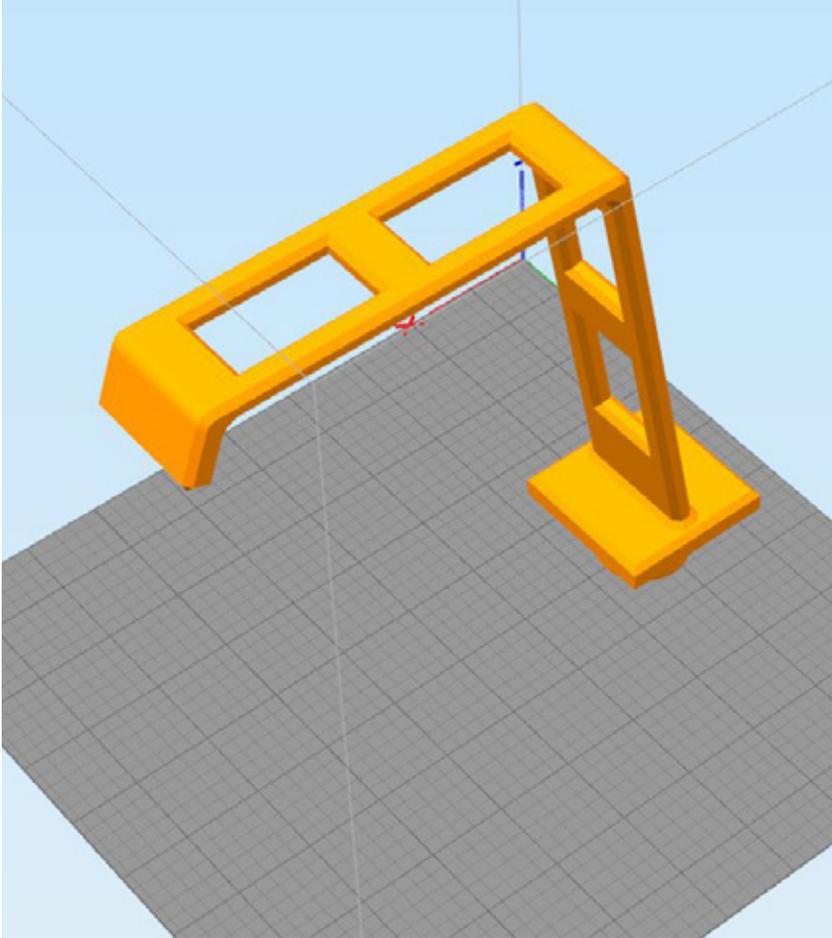
Participating in the most advanced Additive Manufacturing conferences throughout Europe and Asia, SOSITALIA gained knowledge from the most acclaimed international scientists, engineers and specialists in machinery and materials from aerospace and automotive fields, as well as other fields representing the forefront research and application of this technology.

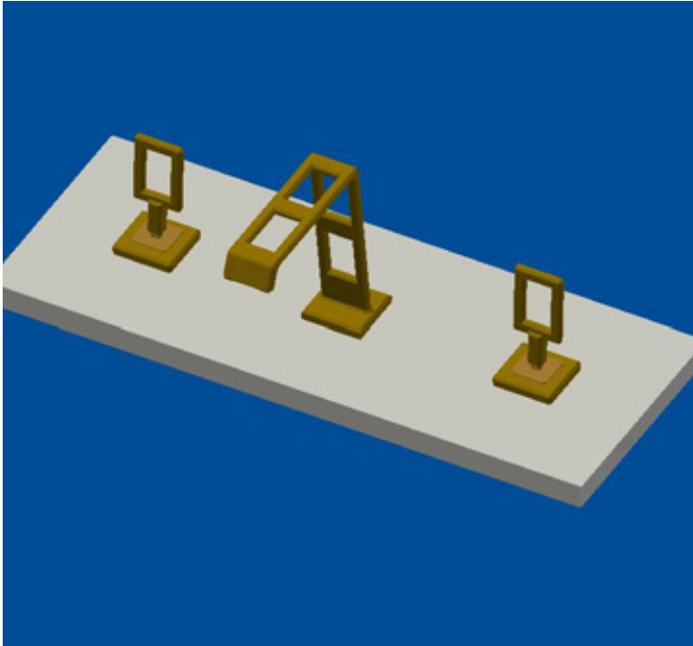




DESIGNING FOR THE ENVIRONMENT

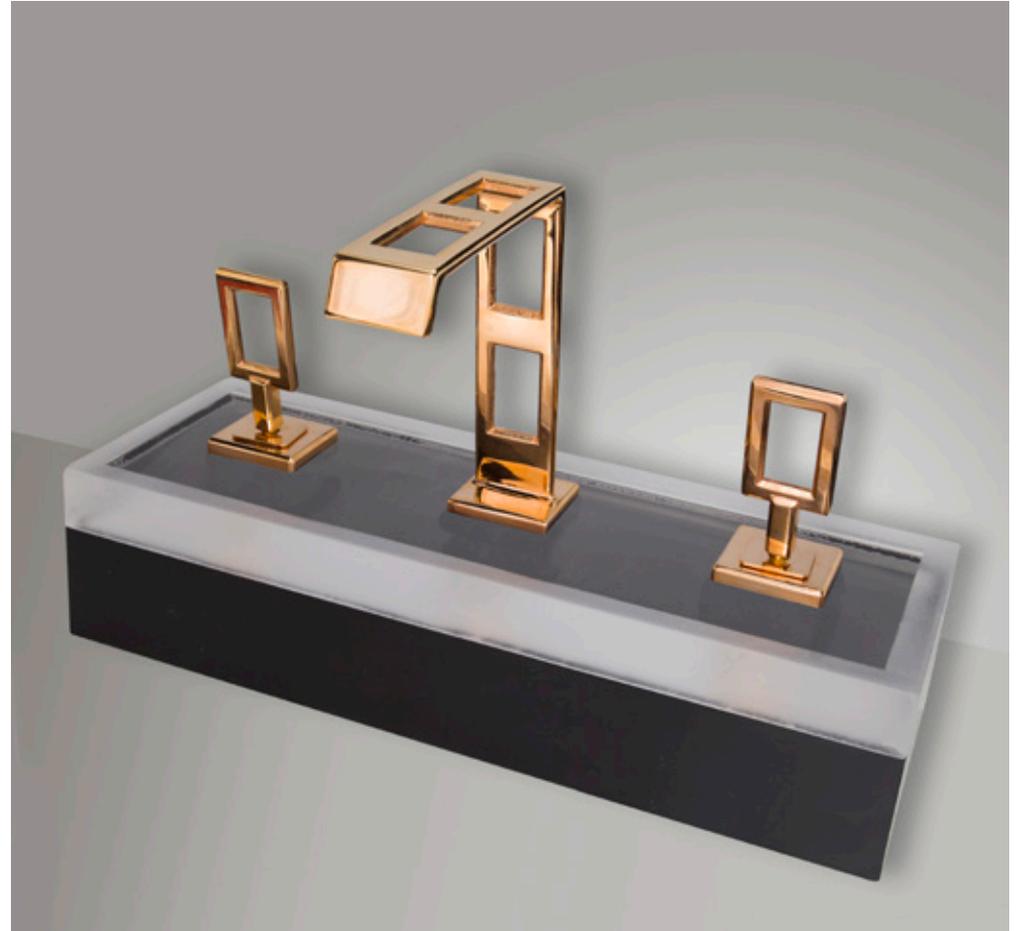
Light, intricate designs demonstrate an intelligent use of applying less material to a traditional form, avoiding the waste of unrequired material and making metal 3D printing an environment-friendly production process.

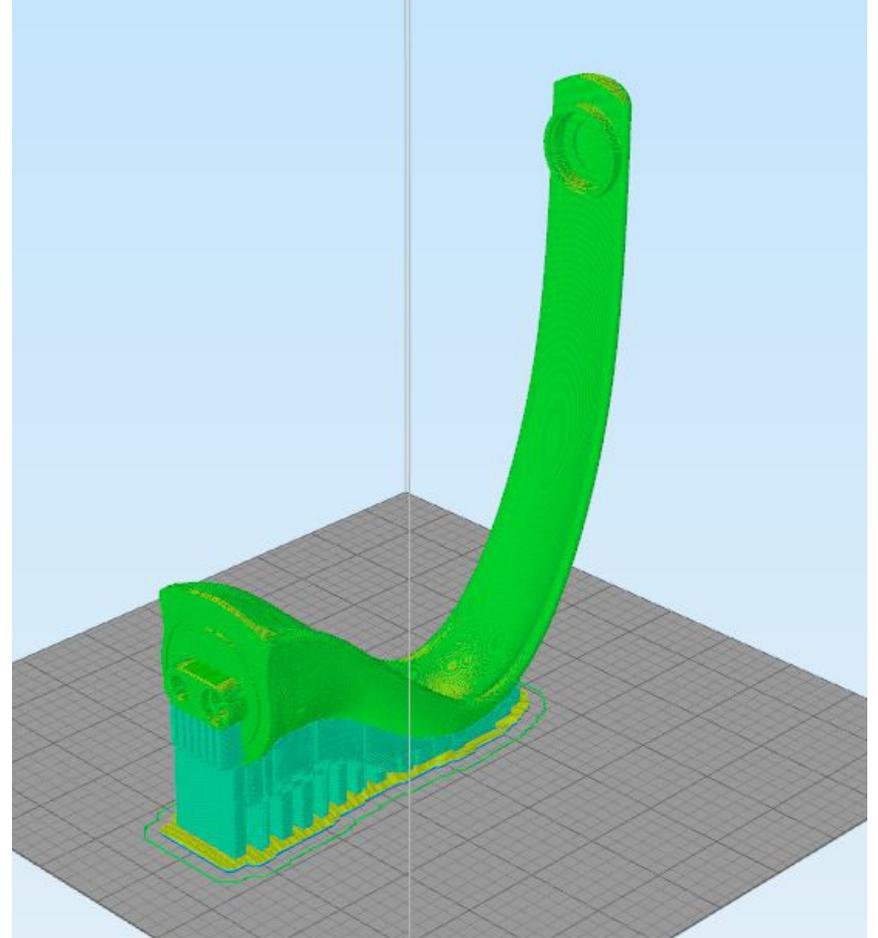
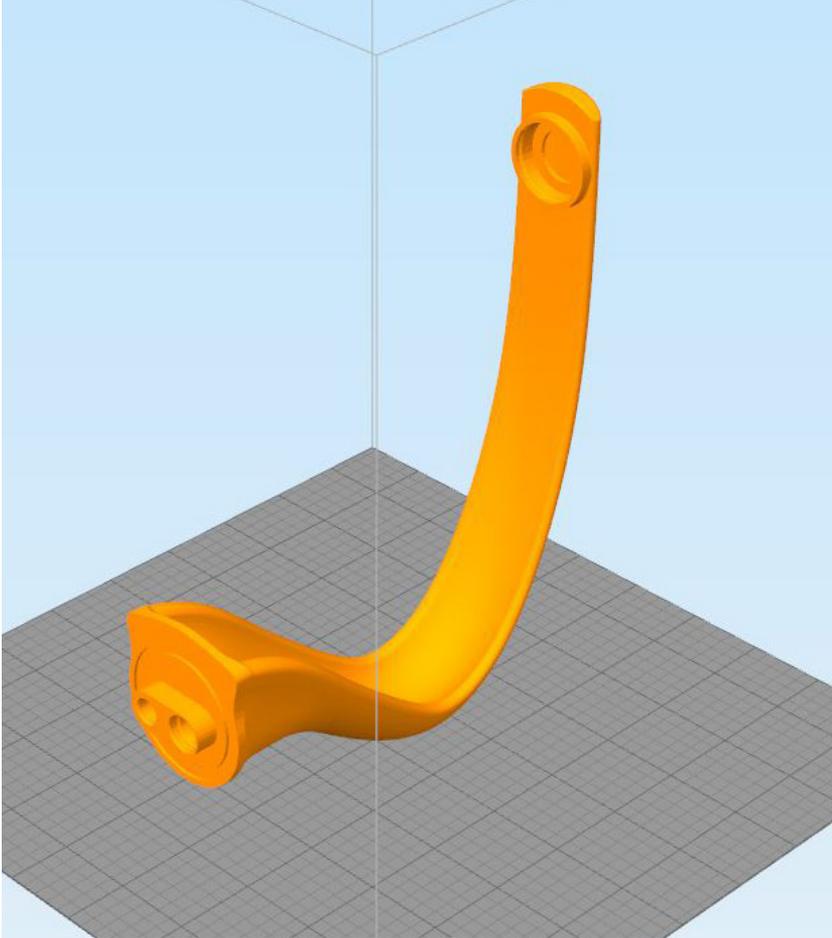




FROM CONCEPT TO FUNCTION

The first functional bathroom faucet model, not only designed by 3D printing, but applying the latest technology relating to post processing in particular, polishing process and surface finish.

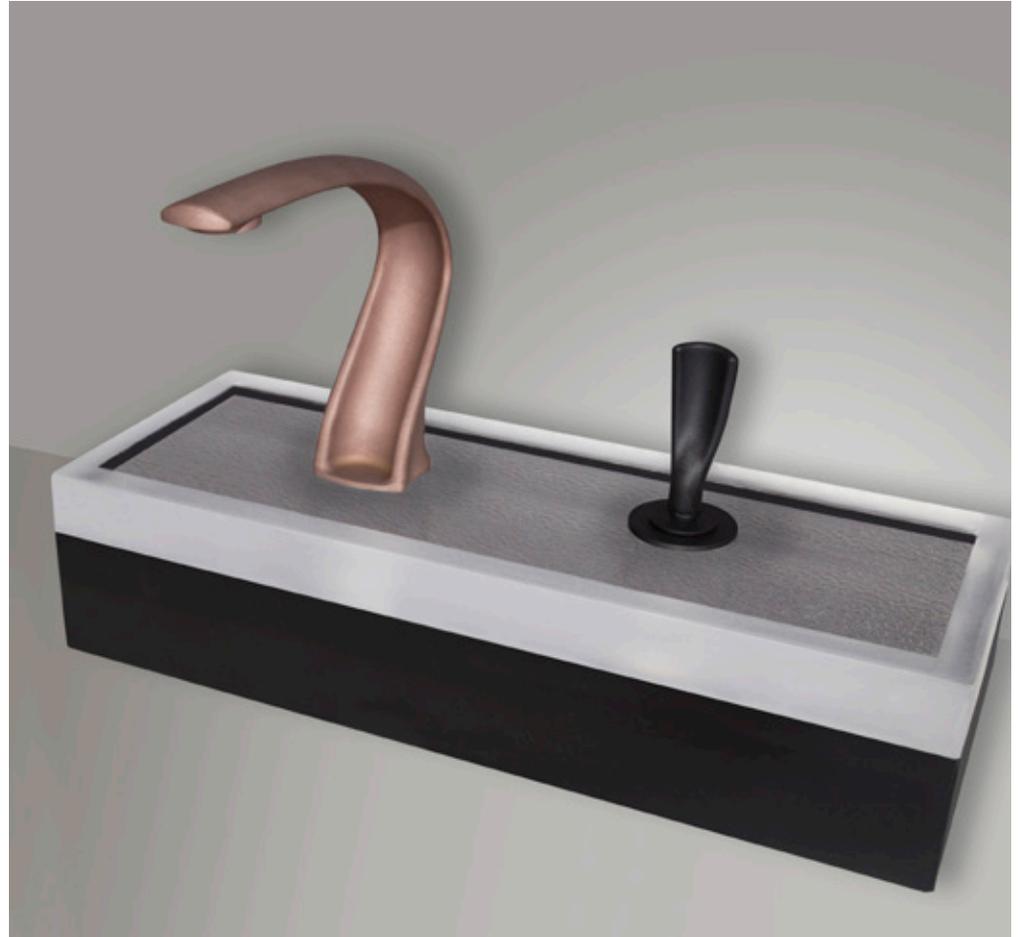


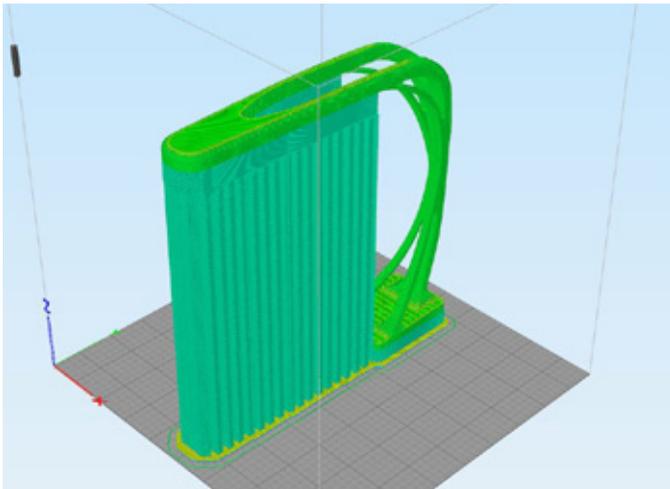
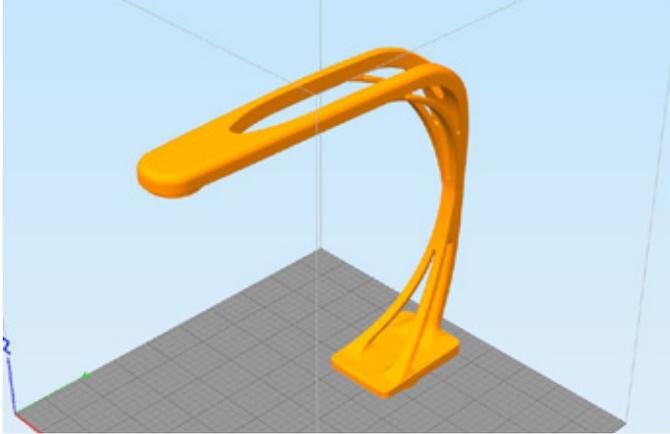




POST PROCESSING

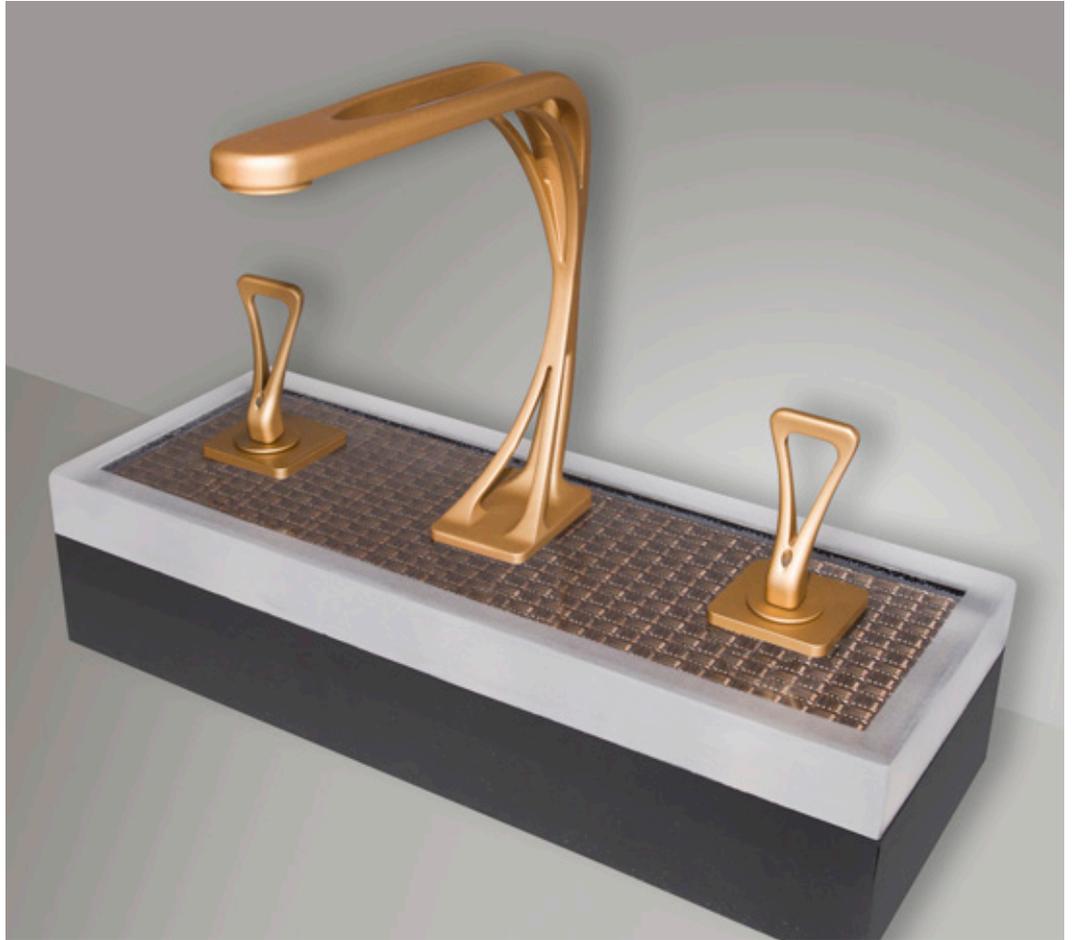
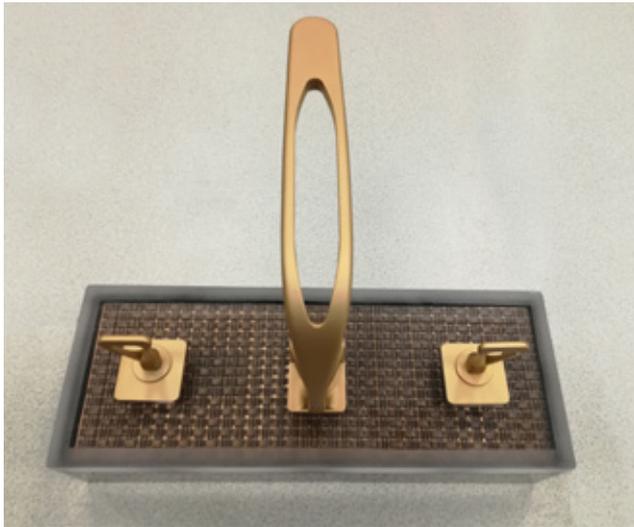
By designing intricate and complex forms, the post process is highly complicated in the traditional faucet production processes. The Physical Vapor Deposition (PVD) is an excellent solution to finish a sophisticated design, vacuuming individual atoms or molecules to the surface ensuring a uniformed coverage. This environment-friendly technology, unlike many products used in the electroplating industry, has no environmental impact nor risk to health.





MIRACLE

Another available finish that applies uniform coverage to the more elaborated designs is by the painting process.





Giorgia Galimberti

- 02.2018 **Ph.D Design**
11.2013 Politecnico di Milano with the Department of Mechanical Engineering
- 08.2016 **Visiting researcher**
03.2016 TU Delft @AppliedLabs
- 04.2013 **MSc in Design & Engineering**
09.2010 Politecnico di Milano
- 04.2013 **BSc in Industrial Design**
09.2010 Politecnico di Milano

PhD thesis “From metallic powder to the object. Digital aesthetic of new products obtained by Selective Laser Melting process”.

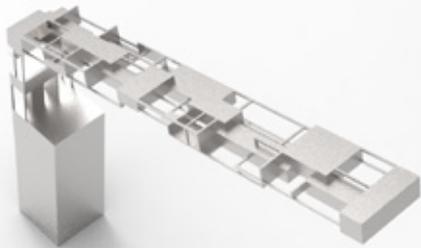
MSc thesis “When idea acquires layer. A comparative analysis of additive manufacturing technologies in design”.

Her entire course of study has allowed her to develop multidisciplinary knowledge between engineering and design. The skills acquired allow her to understand, modify and transform the language of the product that communicates through forms, functions and its usability.

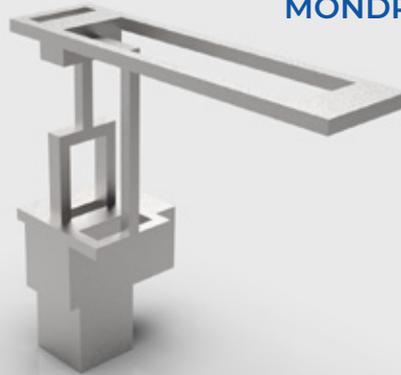
Giorgia’s work focuses on bridging the design ideals with the engineering knowledge in search of new aesthetics with novel manufacturing techniques. During her PhD, Giorgia took this challenge employing metal additive manufacturing techniques and surface finishing methods.

Today Giorgia continues this challenge, consulting design and machinery companies looking to adapt metal additive manufacturing processes.

MONDRIAN



MONDRIAN 2



ORGANIC



MR. HYDE

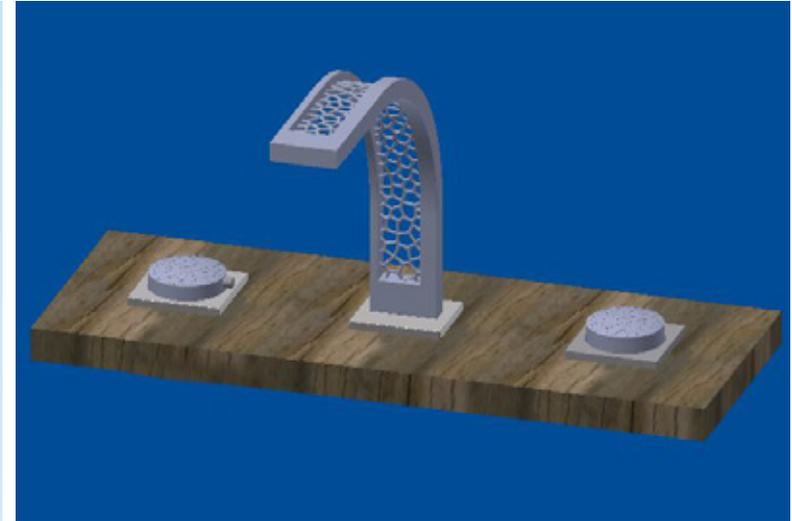
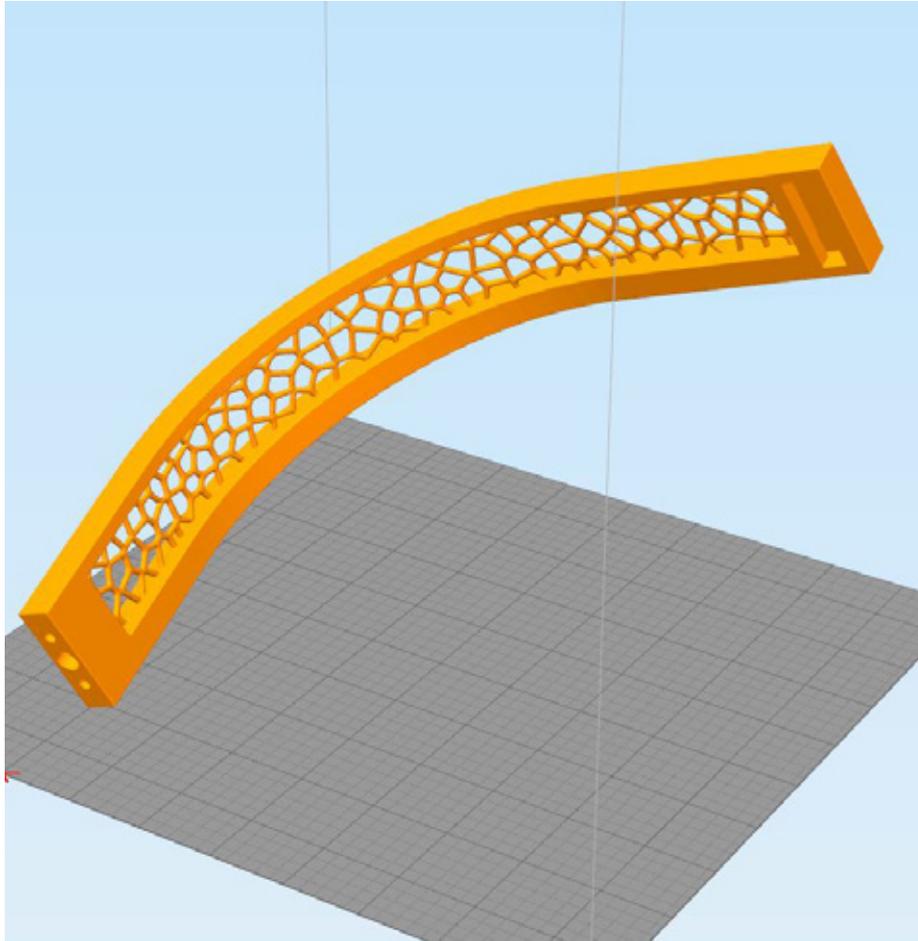


ESCHER



TANGRAM

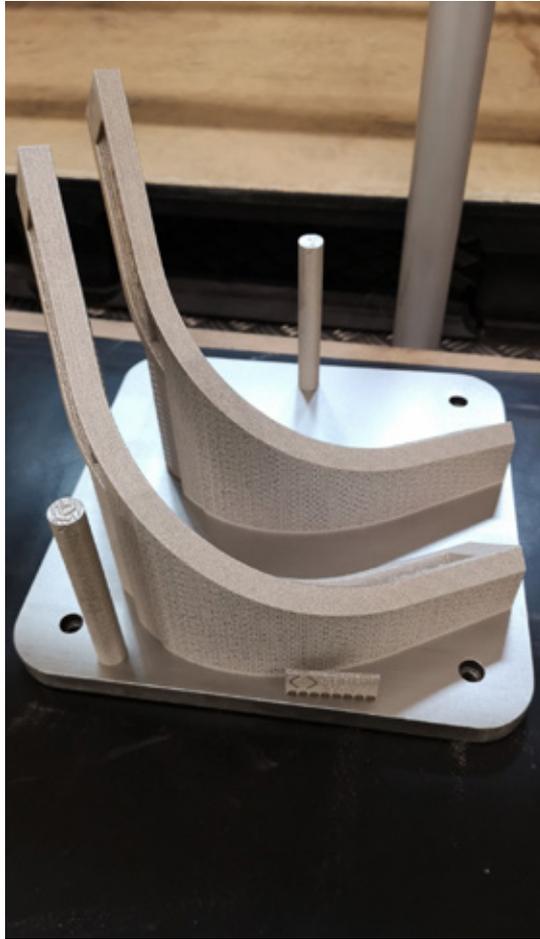


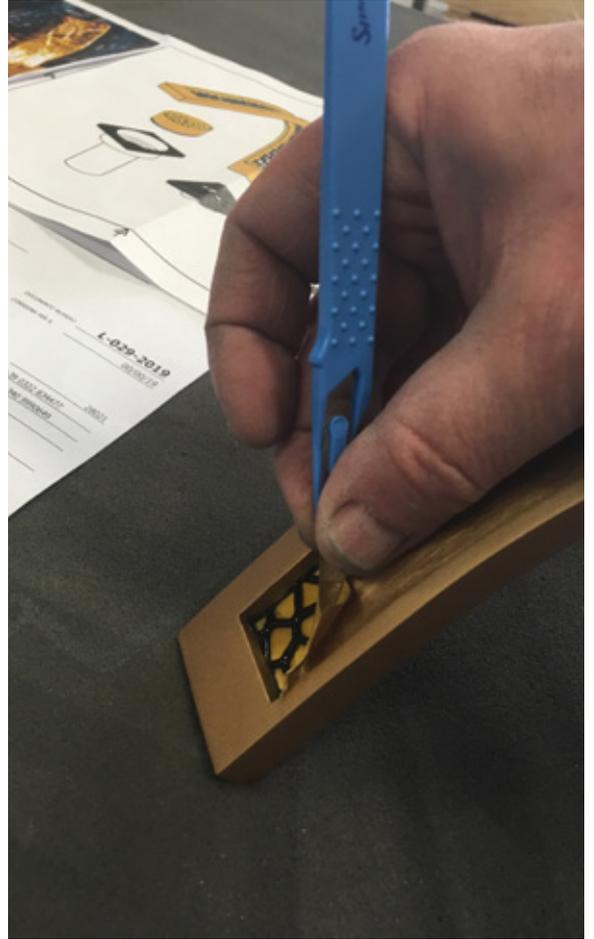
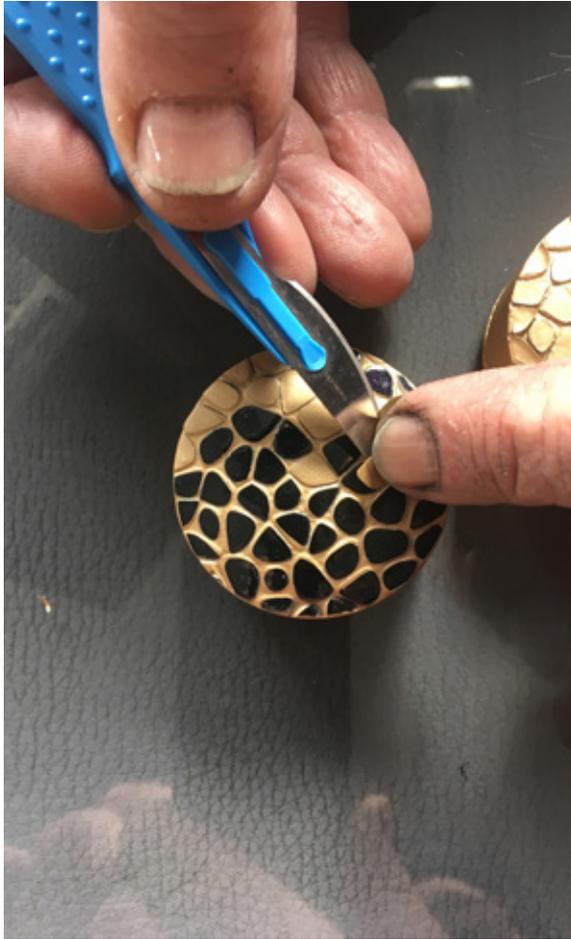


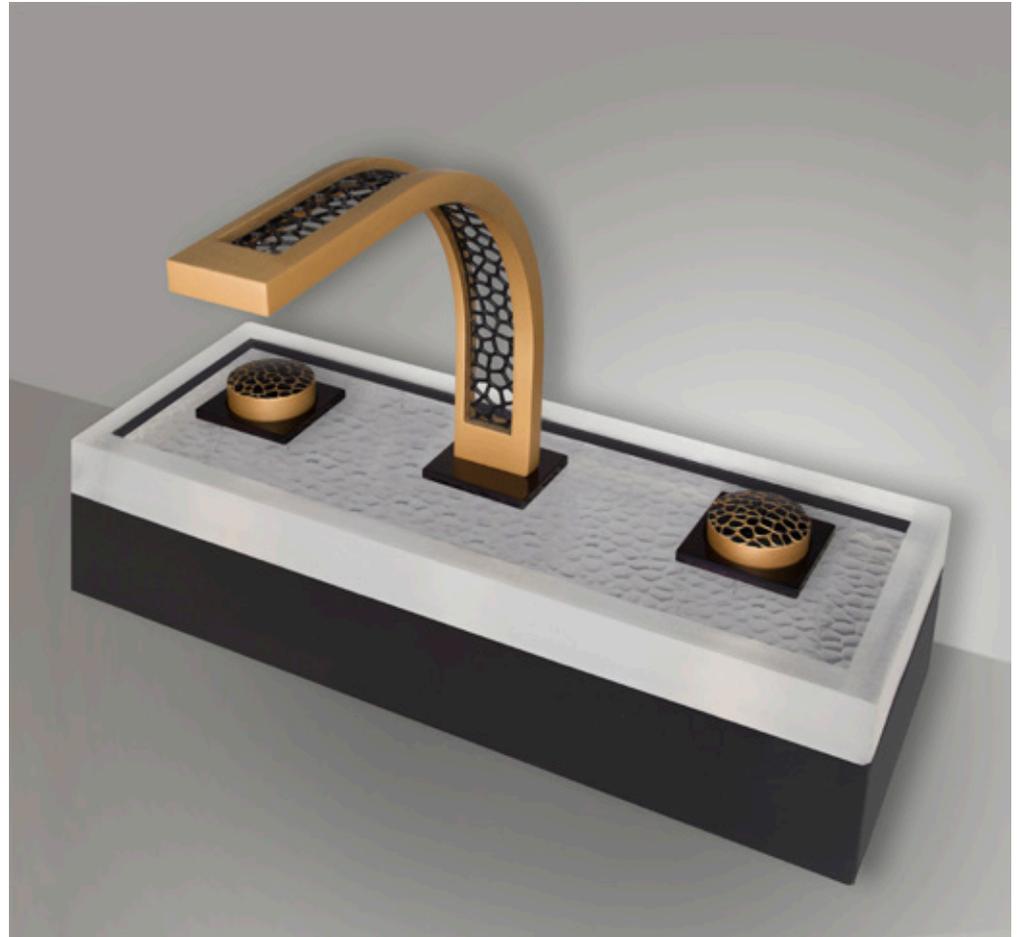
RESTORING ART IN ARTISAN

The collaboration with the Politecnico di Milano brought the new digital aesthetic to the Sanitary Fittings Industry.

This faucet was designed to combine the modern metal 3D printing with the finishing touch of a craftsman. Bringing back the quality workmanship of an artisan, restoring an established craft of finishing products by hand, is an extraordinary value to the customization and artistry of a faucet today.





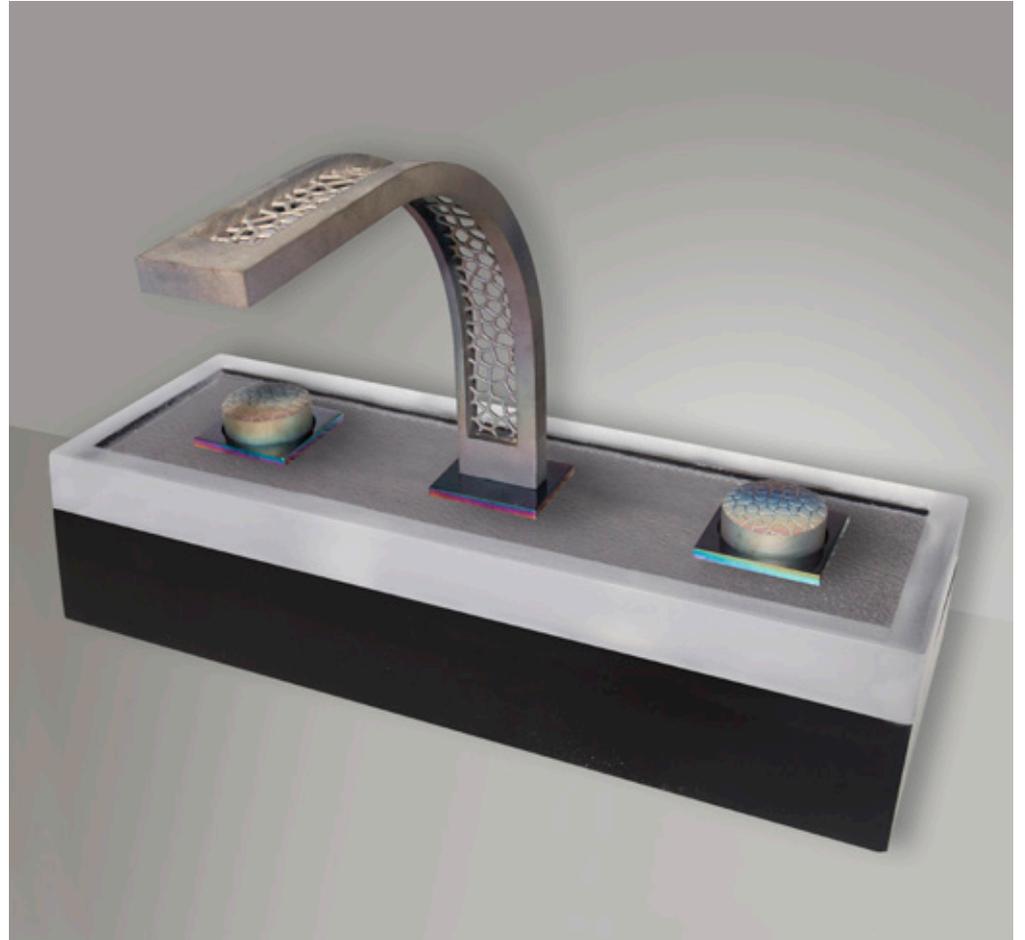
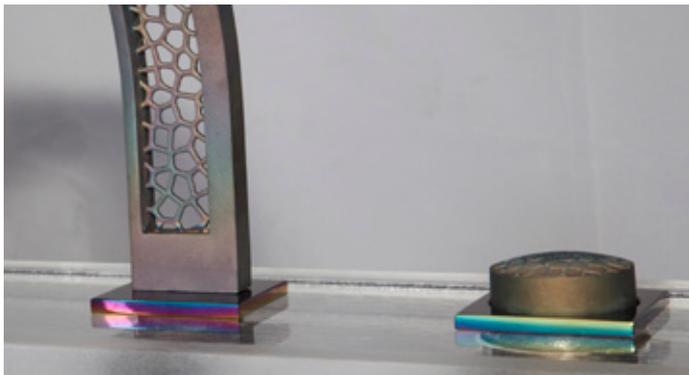


ORGANIC ULTRA TECH

The concept of the product is applying the most modern and advanced surface finish through processes of PVD (Physical Vapor Deposition) / DLC (Diamond-Like Carbon). Properties of DLC include:

- high hardness (up to 6000 HV)
- corrosion resistance under particular conditions of use, such as highly saline environments, seaside environments, naval applications and laboratories
- excellent resistance to wear and scratching
- significant density and high impermeability
- high aesthetic properties (valuable colours, iridescent, glossy and matte)











TEAM WORK

The work group aimed to investigate how new manufacturing processes could provide the means to novel forms, and how the new digital aesthetic can enrich the world of faucets. Dr. Giorgia Galimberti and Dr. Ali Gökhan Demir from the Politecnico di Milano joined the team as designer and process expert respectively. The project, under the direction of Giovanni Pitturru, includes Andrea Lucchini as project leader, Domenico Palmieri as post processing supervisor and Cristian Dorz as project operative manager.



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