**ITALDESIGN: AN INNOVATION DAY**

**TO INTRODUCE NEW DEPARTMENTS AND FEATURES**

* **Company invested over 24 million euros in the last two years**
* **New Powertrain Emissions Lab**
* **New Human Machine Interface and User Experience Lab and new Italdesign Infotainment System**
* **New Learning and e-Learning Lab dedicated to agile working and competence transformation**
* **The new Vadò working & logistics plant**

Moncalieri, October 18th, 2019

Over the last years, Italdesign has been running a consequent strategy process creating buy-in and engagement of the company’s whole team in the need of constant change.

In 612 days after the press conference for the 50th anniversary of the Company, Italdesign has implemented new labs, tools and departments with an overall investment in the last two years of more than 24 million euros.

**The new Powertrain Emissions Lab**

Set up in collaboration with the Italian branch of the German company FEV, this state-of-the-art analysis laboratory will allow Italdesign to expand its services portfolio for the automotive industry as it will be able to test vehicles emissions.

The Powertrain Emissions Lab will operate 24 hours a day, 6 days a week and will be managed by FEV staff in order to guarantee the maximum quality and transparency of the data produced. Built in a record-time of 18 months, it covers an area of more than 1,000 square meters and it’s divided into two, separated and access-controlled zones. One is dedicated to the VW Group brands , the second to external customers.

“This new Lab is something unique in Italy – Italdesign CTO Antonio Casu says. The emissions analysis is a totally new service we can now add to our portfolio to be offered to our clients, besides the ones we’ve been offering since 1968, namely styling, engineering development, testing, validation and prototyping through to the assistance to the start of production”.

The Powertrain Emissions Lab enables Italdesign to provide vehicle emissions measurements following most of the international standards.

The performance of the devices and the architecture of the center enables to extend the measurements over the standards to perform advanced research and development tests and analysis.

**The New Human-Machine Interface/ User Experience Lab and Italdesign Infotainment System**

Set up last year, the HMI LAB is a multidisciplinary environment where analysis and studies are conducted focusing on the interface between humans and vehicles.

Interior layouts and rear compartments can be defined, developed and tested thanks to a fully adjustable seating buck, able to represent all possible configurations available nowadays, as well as future layouts related to autonomous driving.

Ergonomic validation through Virtual Reality tools allows the reduction of development time and costs, minimizing the need for physical objects.

Several activities can be performed here, such as:

- reachability and visibility analysis

- ingress/egress simulations

- storage compartments / trunk definition

- general in-vehicle sensation

- HMI/UX definition and validation

Realistic Color&Trim and the new integration of tracking system guarantee an even more immersive User Experience.

The interaction with the realtime virtual session is extremely precise and technical analysis feedbacks are highly reliable.

The softwares used for the development of the analysis process also allow the sharing of realtime immersive virtual sessions in different locations, which contributes to the reduction of development time and costs.

Between 2018 and 2019, some upgrades were effected :

- design and installation of roof structure (electrically adjustable in Z and mechanically in X and Y);

- installation and integration of the ART Motion Capture tracking system and Fingertracking;

- new room layout aimed at improving the accessibility of seating buck in the trunk compartment area

- software and hardware updates (Electrification system / HMD)

Italdesign’s competences in this field keep growing, targeting  the continuous development of the dedicated team's expertise and range of action, well beyond the conceptual confines, spreading into the automotive and non-automotive series production.

As an innovation driver, the HMI/UX team has worked on the design of project named IIS, Italdesign Infotainment System, a state-of-the-art, modular, fully customizable and flexible HMI platform and on a highly advanced infotainment system, intended for ultra-limited series production vehicles, customizable in terms of user experience, design and functions, able to be a high level alternative and offer HMI solutions.

**The new Learning Lab**

The Learning Lab Italdesign inaugurated in July this year is not only an area of ​​training and collaboration, but above all an area designed for the agile work, where the focus on education takes on new, tangible values. Belonging to everyone and meant for everyone, the Lab has been designed for the company people’s new needs and is part of the broader framework of Competence Transformation strategic pillar.

The 250 sqm of this functional and modern area can accommodate up to eighty people in different spaces with specific purposes.

Another important step at a training level, focusing the attention on the employees, will be constituted from the end of the year by an e-learning platform (Athena) which will give the possibility to access contents remotely.

Competence Transformation:

Italdesign is a group of 1,000 experts, all together representing 15,000 years of experience in the automotive and non-automotive development fields and 190 different professionalisms. This wealth of knowledge needs to be kept, increased and adapted to promptly respond and anticipate the market requirements in terms of know-how and social skills.

The company is doing this by promoting a “learning culture”, therefore boosting employees awareness and engagement about technical evolution changes, defining a strategic training plan to foster new competences and careers, by supporting a program for encouraging the change, involving all the employees in an active way.

**The new Vadò Working & Logistics plant**

Covering an an overall surface area of 14000 sqm, the premises in Vadò region can be considered among the company’s plants for the PSC production, namely the production of pre-series prototypes, with a durability test area and a full logistics area within the same building, in order to improve the production-cycle efficiency.

The PSC production capacity of this specific site is 8 to 10 cars per week, whereas the company’s overall capacity per year is more than 500 car models.

An area dedicated to the durability tests has been set up beside the assembly lines with full all of the equipment needed to test the vehicles in real driving conditions on our roads.

**TECHNICAL DATA**

**POWERTRAIN EMISSION LAB**

**4WD ROLLER BENCH 48”**

Maximum roller speed extended to 250 km/h

**ANALYZERS**

* MEXA One D2 (Analyzer Raw)
* MEXA One FT (Analyzer Raw FTIR)
* MEXA One C2 (Analyzer Diluted)
* OVN 35H
* MEXA 2000SPCS (Particle Counter)
* CVS One-MV-HE (Constant Volume Sampling System)
* HFU-ONE
* MEXA DLS-One (Particulate Measuring System)
* MEXA 1100QL (N2O measuring system)
* GDC ONE (Gas Divider)
* CFO-201B (Critical Orifice Kit)
* CFC (CPC-Flow Checker)
* Climatic cabinet with precision scale
* Device for the suppression of electrostatic charges

**ROLLER BENCH WITH CLIMATIC CABIN**

The roller bench is installed inside a climatic cabin, in order to fulfill the temperature setpoint requested by the test.

Temperature range: -30°C to +40°C

Temperature gradient: up to 0.5°C/min in whole temperature range.

Humidity tolerance: ± 5% RH

Max admissible heat rejection: 179 kW at-30°C

**STANDARD SOAK AREA**

Target Temperature: 23°C ± 3

**COLD SOAK ROOMS 1 AND 2**

Cold soak 1: 39 m2

Cold soak 2: 47 m2

Temperature range: -30°C to +40°C

Temperature gradient: up to 0.2°C/min in whole temperature range.

Humidity not controlled.

Max admissible heat rejection: 20 kW at-30°C