



Partners for **Architectural and integrated Engineering**
for the Life Sciences industry



OVER 35 YEARS
OF EXPERIENCE IN THE LIFE
SCIENCES INDUSTRY



Techniconsult Group

Your partner during the entire life cycle of your plant

The aspect that differentiates us on the market is **our soul**, our values; we are a living organism that adapts to the **customer's needs** and believes in growth through skills. Values that are transformed into quality rigorously pursuing, but at the same time with great flexibility, the development of a tailor-made service for our customers. **The group currently comprises:**

Engineering, commissioning and qualification activities



General contracting, construction and **maintenance**



Engineering and validation of **automation** systems





About us

Values

- Customer company
- Long-term relationships
- Flexible approach
- Safety as a core value
- Innovation

Benefit

Since 2022, we have become a Benefit Corporation, aimed to help create a positive impact on society and the environment.

Certifications

ISO 9001 quality system certification and **ISO 45001** safety management.

Awards

FOYA 2020, Social Impact Category - GSK's project - where we were the **EPCM Contractor**.

"Imprese Vincenti" award considering the revenue growth, staff growth, innovation rate and internationalization.



Some of our main clients



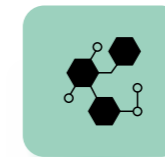


Our services

The **integrated approach** allows considerable **flexibility in dealing with different projects**, being able to calibrate each service. The customer always has the possibility of choosing between the independent and separate provision of one or more services or whether to include the required service within a **turnkey solution**.



CONSULTANCY
& ENGINEERING



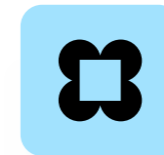
PROCESS
ENGINEERING



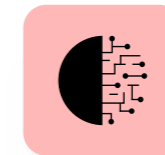
CONSTRUCTION
& GENERAL
CONTRACTING



COMMISSIONING
& QUALIFICATION



CONTAINMENT
& MONITORING



AUTOMATION
ENGINEERING



ENERGY
EFFICIENCY,
SUSTAINABILITY



MAINTENANCE



In-house tools

We make use of **complementary tools** that guarantee more accurate results as they **help define and anticipate critical situations even** at the design stage and not only that, they are all in-house services, so, thanks to our specialists, we can study and implement customized solutions.



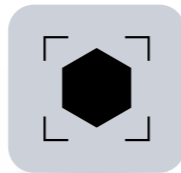
PROCESS
SIMULATION



CFD
COMPUTATIONAL
FLUID DYNAMICS



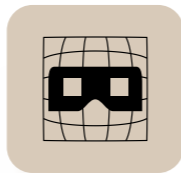
BIM,
LASER SCANNER
& CDE



AUGMENTED
REALITY



3D PRINTING



VIRTUAL REALITY





Innovation

Since 2012 - Start using **BIM & CFD** Technologies

Since 2019 - **Augmented Reality (AR)** for field management

2020 - **Virtual Reality (VR)** application as a training tool for production personnel

Since 2021 - **Cloud platform (CDE)** to manage all the project data

Latest innovation tools



Current State Survey

- In order to properly coordinate revampings it is mandatory to start with the most faithful current state of the facility.
- Flying drones and handheld scanners could help by scanning critical spots, unobtainable with traditional techniques.



Site Monitoring

- We plan to start testing Boston Dynamics robots equipped with Leica laser scanners in 2024
- The objective is to acquire daily snapshots of the construction site to feed into a software capable of comparing them to the coordinated BIM model.
- This will allow Techniconsult to monitor the daily progress and quickly highlight out of tolerance sections that need rework.



Strategic join venture

Partnerships to bring engineering
and quality services worldwide



To support the Life Sciences
industry through out the whole life
cycle of your facility and products.
Global coverage in 25 countries.



PQE Group

Global coverage in 25 country

The PQE Group, with offices operating in more than **25 countries**, **is the world leader in quality** for the Life Sciences sector, and offers both high-level and customized consulting services worldwide.

- | | | |
|-------------|-----------|----------------|
| — Argentina | — Germany | — Poland |
| — Australia | — India | — Saudi Arabia |
| — Belgium | — Ireland | — Singapore |
| — Brazil | — Israel | — Switzerland |
| — Canada | — Italy | — Tunisia |
| — Cina | — Spain | — Turkey |
| — Colombia | — Japan | — UK |
| — Eurasia | — Malta | — USA |
| — France | — Mexico | |



ENGINEERING
& CONSTRUCTION



COMMISSIONING
& QUALIFICATION



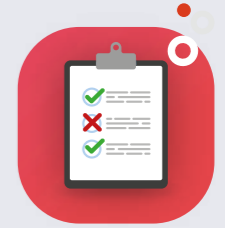
REGULATORY
AFFAIRS



DIGITAL
GOVERNANCE



DATA INTEGRITY
ASSURANCE



QUALITY
COMPLIANCE



LABORATORY
EXCELLENCE



AUDITS



TRAINING



Federation's added Value

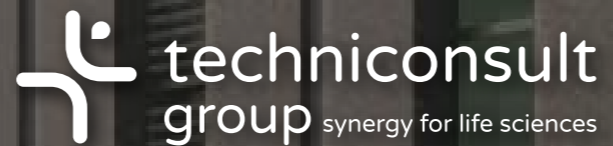
- International **Team +2,000** highly qualified Pharmaceutical professionals (40 locations in 25 countries).
- **International presence** reduces travel time and costs and makes Federation closer to each Customer.
- Techniconsult, can cover **each phase** for any project, and counts with the support of PQE for matters such as etc. **Regulatory Affairs, Pharmacovigilance, Quality compliance**
- The Federation represents a unique opportunity of being a **“one-stop shop”** for all Engineering Projects, simplifying and reducing Customer's complexity.





Some of our references

CONSULTANCY & ENGINEERING





Greenfield OSD manufacturing facility

The scope of the project is to construct a new pharmaceutical plant of an approximate footprint of 26,000 sq m, including production building, warehouse, labs, offices and canteen with possible future expansion.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Oral Solid

Tipology: Greenfield

Services: Site Master Plan, Feasibility Study, Concept Design, Advanced Basic Design, Procurement Assistance

Total investment cost: € 235 MLN

Execution: Completed in 2023

Location: Italy





Biological drug development and production hub

Construction of a new facility for the manufacturing of biotechnology products. The facility includes three floors plus a basement and a penthouse with plan size of 1425 sqm. The entire project has been managed according to LEED protocol for obtaining **GOLD certification**.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Sterile

Tipology: Brownfield

Services: EPCM

Total investment cost: € 110 MLN

Execution: Completed in 2024

Location: Italy





Biotechnological drugs manufacturing building

Revamping of an existing manufacturing area to construct a new facility for the manufacturing of biotechnology products. The project includes dispensing, compounding & fill finishing areas for liquid & lyophilized bio-tech products. The facility is structured in a shop floor plus upper & lower technical areas and a penthouse at roof level.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Sterile

Tipology: Brownfield

Services: EPCM services, including Feasibility Study and Conceptual Design

Total investment cost: € 79 MLN

Execution: Completed in 2023

Location: Italy





Injectable drug manufacturing area

Revamping of an existing area in order to construct a new production department for injectables in a production surface of approximately 600 sqm, technical area of 900sqm and penthouse of 250 sqm.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Liquid

Tipology: Revamping

Services: EPCM Services. Construction of the mechanical systems in charge of Tecma

Total investment cost: € 60 MLN

Execution: On-going

Location: Italy





Bulk API production building

The scope of the project is to design a new API production building within the existing site. The new building will have to accommodate three productive suites, with the possibility to increase them to five.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Bulk API

Tipology: Greenfield

Services: Basic Design, Detail Design for permitting activities

Total investment cost: € 50 MLN

Execution: Completed in 2022

Location: Switzerland





High containment OSD manufacturing facility

Construction of a new building and for the revamping of an existing production and warehouse area to create a new high-containment solid department. **The project was awarded with "FOYA (Facility of the Year Award), Social Impact Category"** by ISPE.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Solid

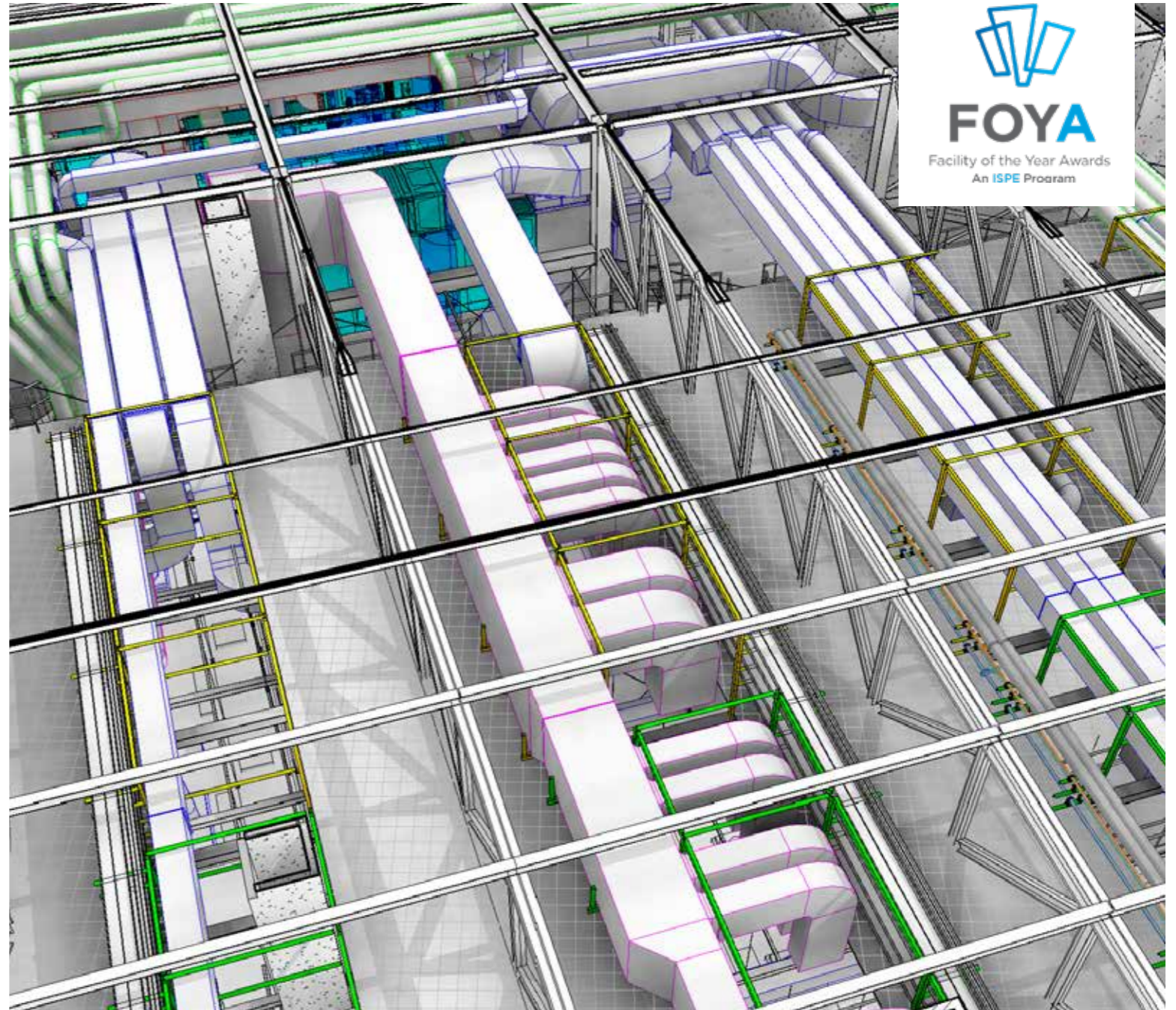
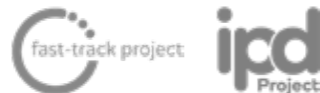
Tipology: Brownfield

Services: EPCM

Total investment cost: € 30 MLN

Execution: Completed in 2019

Location: Italy





New inhalers facility

The scope of the work is to construct a new production facility for inhalers in a newly built building.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Inhalers

Tipology: Greenfield

Services: EPCM

Total investment cost: € 30 MLN

Execution: Completed in 2022

Location: Greece





Twin production lines for production of carpules

The scope of the project is to construct two new manufacturing twin lines of cartridges in an area currently not used to increase the production capacity and lean optimization. The project includes dispensing, compounding & fill finishing areas for **injectable dental products** (carpules).

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Sterile

Tipology: Brownfield

Services: EPCM Services, startig from Site Master Plan.
Construction of the mechanical systems in charge of Tecma.

Total investment cost: € 30 MLN

Execution: Completed in 2023

Location: Italy





Injectable drugs manufacturing department

New sterile area inside an existing manufacturing site, including the revamping of an existing area and the extension of a new building to install a new compounding area, fill-finish line and packaging for the manufacturing of injectable liquid products; the project includes the provision of future installation of a lyophilizer.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Sterile

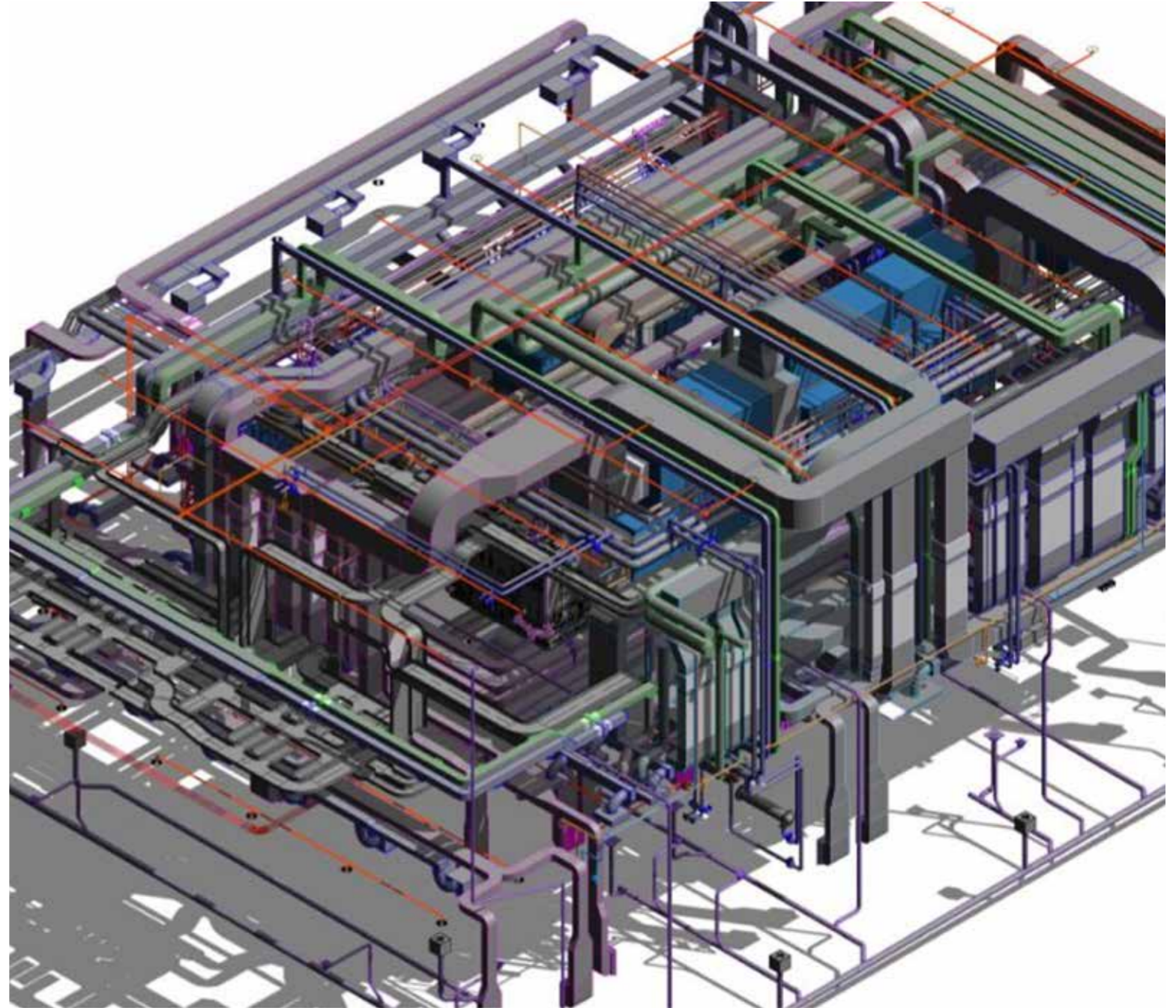
Tipology: Brownfield

Services: Basic Design Consolidation, Detail Design, Procurement Assistance, Follow Up and Construction Drawings

Total investment cost: € 25 MLN

Execution: Completed in 2018

Location: Italy





New vials manufacturing facility

New STERILE and vials manufacturing facility:

- Revamping of existing technical/manufacturing areas to be retrofitted to new facilities.
- Construction of new manufacturing facility.
- Construction of new auxiliary plant building.

Service provided by Techniconsult

Client: Confidential

Industry: Pharmaceuticals

Department: Sterile, vials

Tipology: Revamping

Services: EPCM

Total investment cost: € 21 MLN

Execution: Completed in 2013

Location: England





VIRTUARCH



ARCHITECTURE | INTERIORS | PROJECT MANAGEMENT



WHO WE ARE

An Award-Winning **Swiss** Architecture and Project Management company

Successfully realizing projects since almost **20 years**

Around **100 qualified staff** in offices in **Switzerland, China and Thailand** and on construction sites in Europe, East Asia, Southeast Asia and the Middle East with a wide **network of experts**



WHAT WE DO

Architecture Design

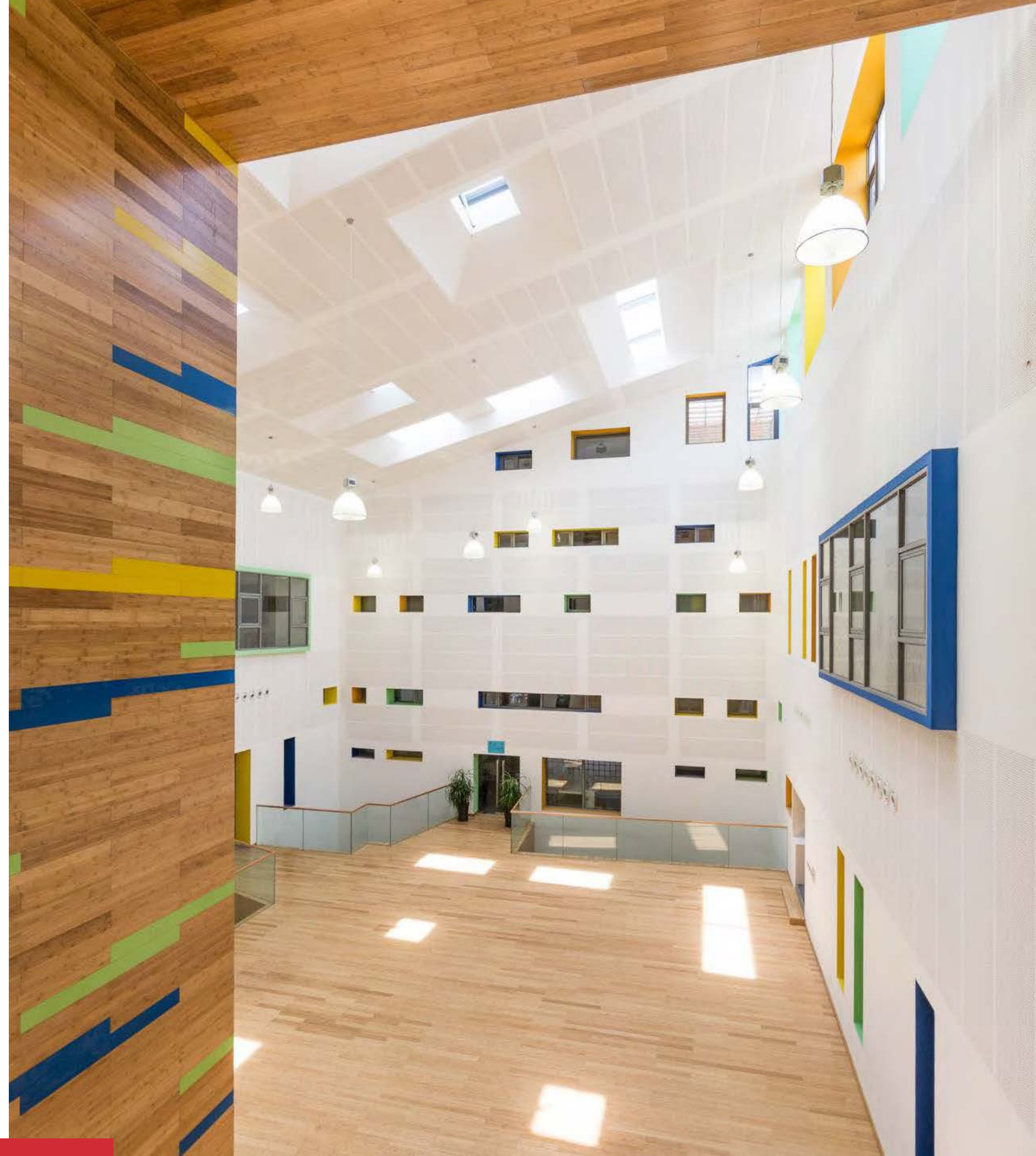
Interior Design

Project Management

Turn-key fit-out projects

Landscaping Design

Urban Planning





OUR TEAM

VIRTUARCH is an international award-winning design and project management firm from **Switzerland** with more than 100 employees in **Europe and Asia**. While excelling in creative design and in down-to-earth technical competence, we value cultural differences, believing that they are a **source of strength** in our projects

With our solid experience spanning **all phases** of a project, we make sure to always achieve our goals, through the excellence of our experienced staff with the **perfect combination** of Architecture, Interior Design and Project Management capabilities.





SUSTAINABILITY

We design buildings that reflect consciousness and awareness for the **protection of the environment**

We **strive** to provide the **best** possible working and learning **environment for people**

We place our client's **health and safety** at the **top** of our agenda



DGNB
Deutscher Nachhaltigkeits-Zertifizierungsrat
German Sustainability Building Council

OUR FIELDS OF EXPERTISE



INDUSTRIAL

Greenfield Industrial
Brownfield Industrial
Workshop Fit-out
Industrial Parks



R&D

Greenfield R&D
Brownfield R&D
Laboratory and Cleanroom
High-tech Parks



OFFICES

Office Fit-out
Headquarter Buildings
High-rise Office Buildings

OVERALL SCOPE OF SERVICES

We take care of the whole process, from the early stages of the project till completion. Our 7 steps project approach guarantees success of the projects to our clients.

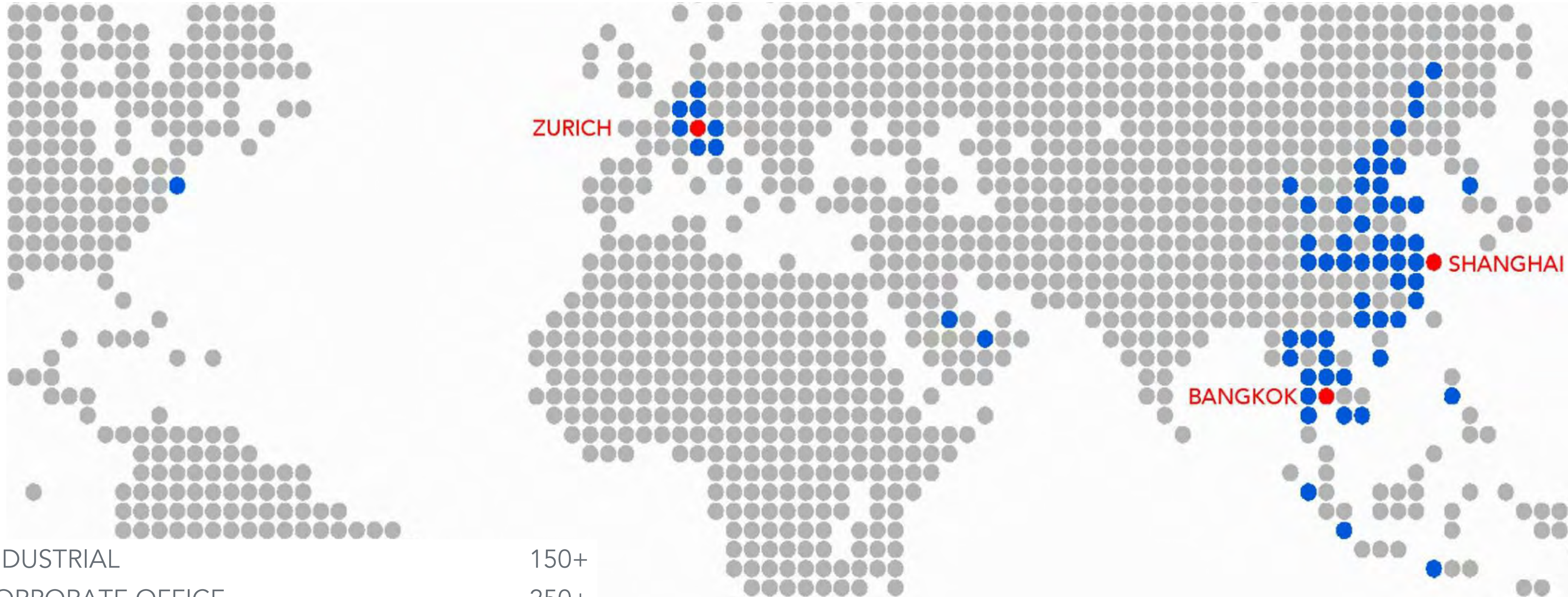


OVERALL PROJECT SERVICES

OWNER'S REPRESENTATION	PROJECT MANAGEMENT	AUTHORITY LIAISON
SCHEDULE CONTROL	COST CONTROL	QUALITY CONTROL



OFFICES AND PROJECTS



INDUSTRIAL	150+
CORPORATE OFFICE	250+
EDUCATIONAL	150+
HEADQUARTERS / OFFICE BUILDINGS	50+
RESEARCH & DEVELOPMENT	50+
COMMERCIAL	120+



SOME OF OUR LIFE SCIENCE CLIENTS

ABB

ALPLA

B | BRAUN

 **BOSCH**

BÜHLER

 **Chiesi**

CLARIANT

DiaSorin

EMS
EMS-CHEMIE

BIOSYNTH®

+GF+

GREENMAX™
INTCO RECYCLING

爱美客
IMEiK


INTCO

Lindt 

 **NOVARTIS**


METTLER TOLEDO

SARTORIUS

SIEMENS

YPSOMED

Client's **satisfaction** is the key of our success

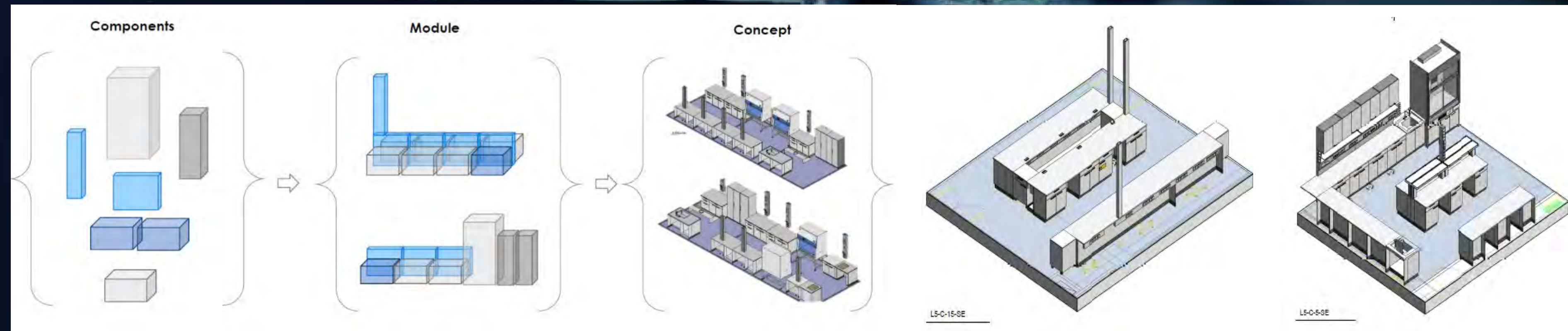
During all these years Virtuarch has had the honor to have been **entrusted** by many global brands, to deliver **high performing spaces** dedicated to collaboration and production





R&D CENTERS

VIRTUARCH PLANS STATE OF THE ART R&D PROJECTS. THE COMBINED EXPERTISE OF VIRTUARCH AND ITS PARTNERS RESULTS IN INNOVATIVE CONCEPTS THAT MEET THE HIGHEST QUALITY DEMANDS OF LEADING PHARMA AND LIFE SCIENCE COMPANIES AS WELL AS THE REQUIREMENTS OF INCUBATOR LABS OPERATORS.



VIRTUARCH | BUILDING BETTER FUTURES



ONE CLARIANT CAMPUS R&D REGIONAL HEADQUARTER

PROJECT NAME	One Clariant Campus
LOCATION	Shanghai, China
CLIENT	Clariant
ASSIGNMENT	Direct Contract
SERVICES	Project Brief Architecture Interior Design Project Management
PHASES	Feasibility Study Concept Design Scheme Design Construction Design Site Supervision
START OF PLANNING	January 2015
START OF WORKS	October 2017
END OF WORKS	December 2020
AREA	30'000 m ²
INVESTMENT	70 Mio. CHF
CERTIFICATES	LEED Gold / WELL Gold
AWARDS	Credaward Active House Award



CLARIANT OCC





CLARIANT OCC





BIOSYNTH
Suzhou



OPOCRIN
Shanghai



IMEIK
Beijing

R&D CENTERS





EMS
Suzhou



FIRMENICH
Shanghai



KLUEBER
Shanghai

R&D CENTERS



INDUSTRIAL



VIRTUARCH PLANS AND REALIZES INDUSTRIAL BUILDINGS, LOGISTICS HALLS AND PRODUCTION FACILITIES IN CLOSE COOPERATION WITH ITS CUSTOMERS AND PARTNERS. INDUSTRIAL BUILDINGS ENTRUSTED TO VIRTUARCH STAND OUT THROUGH FUNCTIONAL PLANNING FOR EFFICIENT PRODUCTION PROCESSES, FUTURE-ORIENTED CONCEPTS, AND CAREFUL PLANNING AS WELL AS COMPLETION ON TIME AND WITHIN BUDGET.

VIRTUARCH | BUILDING BETTER FUTURES



RADICI

PROJECT NAME	Neubau Radici
LOCATION	Suzhou, China
CLIENT	Radici Polymers, Suzhou
ASSIGNMENT	Direct Contract
SERVICES	Project Brief Architecture Interior Design Project Management
PHASES	Feasibility Study Concept Design Scheme Design Construction Drawings Site supervision
START OF PLANNING	January 2021
START OF WORKS	February 2022
END OF WORKS	March 2023
AREA	20'000 m ²
INVESTMENT	20 Mio. CHF
CERTIFICATES	LEED Gold
AWARDS	Credaward



RADICI





YPSOMED

PROJECT NAME	Ypsomed New Facility
LOCATION	Changzhou, China
CLIENT	Ypsomed
ASSIGNMENT	Direct Contract
SERVICES	Project Brief Architecture Interior Design Project Management
PHASES	Feasibility Study Concept Design Scheme Design Construction Design Site Supervision
START OF PLANNING	September 2022
START OF WORKS	June 2023
END OF WORKS	Planned end of 2024
AREA	15'600 m ²
INVESTMENT	17 Mio. CHF
CERTIFICATES	LEED Gold



Siemens Healthineers
Shenzhen



Bomag
Changzhou



TGN
Samutsakorn, Thailand



Sulzer
Suzhou

INDUSTRIAL





SCHINDLER ASIA PRODUCTION HUB
Shanghai



KUKA ROBOTICS
Shanghai



SGIP
Changshu

INDUSTRIAL



HEADQUARTER BUILDINGS



CONTEMPORARY WORKING ENVIRONMENT IS CHANGING. AND WITH IT, THE DEMANDS PLACED ON WORKPLACE ARE DIVERSIFYING. VIRTUARCH ACCOMPANIES ITS CUSTOMERS ON THE WAY FROM THE INITIAL TASK TO THE SUCCESSFUL COMPLETION OF A PROJECT. IN OUR WORK WE ALWAYS FOCUS ON THE NEEDS OF THE USERS OF OUR BUILDINGS AND SPACES. VIRTUARCH HAS THE KNOW-HOW, PRAGMATISM AND VISIONARY ORIENTATION TO SUCCESSFULLY IMPLEMENT COMPLEX PROJECTS AND MEET PLANNED QUALITY, TIMING AND BUDGET.

VIRTUARCH | BUILDING BETTER FUTURES



BÜROGEBÄUDE INNOVATION CENTER

PROJECT NAME	Innovation Center
LOCATION	Rapperswil SG, Schweiz
CLIENT	Sinoswiss Holding AG
ASSIGNMENT	Restricted procedure
SERVICES	Architecture Interior Design
PHASES	SIA 31-53
START OF PLANNING	June 2021
START OF WORKS	Planned May 2024
END OF WORKS	-
AREA	5'400 m ²
INVESTMENT	13 Mio. CHF

**innovation
center** | Rapperswil



CSIP TOWER
Changshu



MOBO TOWERS
Wuxi



TTBA Tower
Bangkok



HEADQUARTERS





KUKA
Shanghai



MEIZU
Zhuhai



BUEHLER
Wuxi

HEADQUARTERS





RADICI
Suzhou



INTCO
Zibo

HEADQUARTERS



WORKPLACES



VIRTUARCH IS A TRUSTED PARTNER FOR THE PLANNING AND IMPLEMENTATION OF TENANT FIT-OUT PROJECTS. VIRTUARCH PLANS PRAGMATICALLY, BUT ALSO ALWAYS WITH AN EYE ON VISIONARY AND FUTURE-PROOF CONCEPTS THAT CAN BE IMPLEMENTED WITHIN THE CUSTOMER'S DEADLINES AND BUDGET EXPECTATIONS. WHEN PLANNING WORK ENVIRONMENTS, PEOPLE ARE ALWAYS THE FOCUS. VIRTUARCH IS COMMITTED TO THE WELL-BEING OF EMPLOYEES AND THUS INCREASES PRODUCTIVITY AND SATISFACTION IN THE WORKPLACE.

VIRTUARCH | BUILDING BETTER FUTURES



CHIESI

PROJECT NAME	Chiesi / New Headquarter
LOCATION	Shanghai, China
CLIENT	Chiesi Farmaceutici SpA
ASSIGNMENT	Direct Contract
SERVICES	Project Brief Architecture Interior Design Project Management
PHASES	Feasibility Study Concept Design Scheme Design Construction Design Site supervision
START OF PLANNING	September 2021
START OF WORKS	January 2022
END OF WORKS	April 2022
AREA	1'850 m ²
INVESTMENT	0.7 Mio. CHF
CERTIFICATES	LEED Gold



DIASORIN

PROJECT NAME	Diasorin / New Headquarter
LOCATION	Bresso (Milano), Italien
CLIENT	Diasorin SpA.
ASSIGNMENT	Direct Contract
SERVICES	Project Brief Interior Design
PHASES	Feasibility Study Concept Design
START OF PLANNING	July 2022
START OF WORKS	October 2023
END OF WORKS	June 2024
AREA	1'030 m ²
INVESTMENT	1.5 Mio. CHF
CERTIFICATES	LEED Gold / WELL Gold
AWARDS	(in preparation)



DiaSorin
Shanghai



Consultancy
Milano



Bosch
Rayong, Thailand

WORKPLACES



OFFICE LOCATIONS



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**SIDE BY SIDE
WE LAY THE FOUNDATIONS
TO IMPROVE THE
QUALITY OF LIFE**

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