

## press information

architecture | engineering | design processes | integrated | process optimization | BIM

July 2015

ATP gives a face to a key issue for the future of the building industry:

# Integrated Design. All-round Solution.

Clients have great expectations of "Integrated Design": faster, better, more attractive and more economical ... But Integrated Design cannot simply be implemented like a traditional set of services. It is a mind-set which must be lived from day to day. As pioneers of Integrated Design, ATP organized an international internal ATP competition in order to give a visual face to this culture.



"Integrated design is today's requirement for tomorrow's construction: for the design of lifecycle-oriented buildings", confirms Professor Christoph M. Achammer, CEO of the ATP Group. "It is a culture which has been practiced for many years in our offices in an interdisciplinary and mutually understanding way and which our employees live every day with enthusiasm."

#### **QUALITY LABEL**

ATP will use the new symbol as a quality label for the tried-and-tested integrated design process, in which the traditional interfaces between the individual professions have more or less completely disappeared.



Figure 1: Professor Christoph M. Achammer, CEO ATP architects engineers. Photo: ATP/Becker



## A face for Integrated Design

#### **Ideas Competition**

In view of the approaching anniversary "Integrated Design at ATP – 1976 – 2016" ATP encouraged its own architects and engineers to think creatively about the core message of Integrated Design. A multi-stage internal competition involving all eight European offices was organized with the aim of developing an easily understandable symbol for the visual communication of Integrated Design. The idea was to reduce the complexity of the subject while drawing attention to all significant aspects of Integrated Design.

Of the almost 200 creative ideas the jury chose the circular symbol by Florian Schaller, an architect with ATP Vienna, as the winning entry. The symbol consists of six elements of different sizes and sums up the idea of the simultaneous and interdisciplinary cooperation of the key disciplines involved in a design process.

The specialist areas of architecture, constructional engineering (structural), services engineering (HVAC & electrical), tendering and site supervision merge smoothly into the circle like a mosaic whose completed form represents the integrated design process. The point in the center symbolizes the optimal outcome resulting from the disciplinary, results-oriented brainwork of all participants – a true all-round solution.

#### Four decades of an integrated design culture

It is already 40 years since ATP architects engineers began to design in an integrated way. The then transformation of the traditional architectural office into an integrated design company laid the cornerstone for its development into an internationally successful corporate office which currently employs 550 people. In 2015, ATP is the largest office in Western Europe in terms of contractual volume. Whereas different designers have traditionally worked sequentially and consecutively, the integrated design method requires all specialists to work simultaneously as equal partners on the same project. It is the overall result - rather than individual performances - that counts. This requires a basic change in the attitudes of all participants to each other and to the project. The total energy of the team is focused on the best and most sustainable solution in the sense of a "good building". This allows ATP to move a step forward to its vision of: Changing our world for the better with excellent buildings.



Figure 2: **Symbol for Integrated Design.** Copyright: ATP architects engineers

Figure 3: **ATP's Integrated Design Culture.**Credits: ATP/Becker





### A face for Integrated Design

Integrated design assumes responsibility for the entire design and construction process. This guarantees the client security, transparency and - via the elimination or risky interfaces – a single, competent point of contact. The Lead Project Manager assumes this overall responsibility and controls the means and structures required to manage the process.

#### Modern software to simulate the lifecycle

The most appropriate current tool for facilitating Integrated Design is BIM (Building Information Modeling). Following many years of development and optimization work ATP has been using this design tool in all its offices since 2008. ATP draws no more plans – it models buildings. BIM generates a data model that continuously records the design and construction process from the first idea via all virtual design variants and real building activities to the life-long operation of the building. All participants in the design process and the client enjoy real-time access to all design documents and can simulate and estimate the entire future lifecycle costs from the earliest design phase.

#### Certification of a design process

As an "Early Mover" in the architecture scene, all ATP's European offices work in an integrated and BIM-supported manner using solid know-how about the Integrated Design process for complex buildings. Since 2014 the ATP Group has been the world's first and, still, only architectural and engineering company to carry ISO 9001 and ISO 14001 Quality and Environmental Management Certification for all Integrated Design processes.

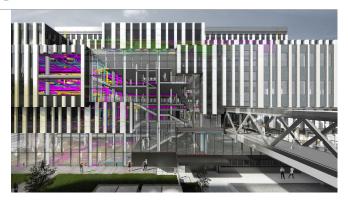


Figure 4: The new Research Institute for Molecular Pathology (IMP) in Vienna was integrally designed using BIM.

Visualization: ATP

## The EU puts its support behind Integrated Design with BIM

The traditional Central European design approach is often marked by design errors and time-intensive correction measures resulting from inadequate communication within the project team. These often lead to significant additional costs in the construction and operating phases. In contrast, the Integrated Design method and the resulting earlier and more intense cooperation between architects and engineers reduces average design and construction timetables by up to 42 % and 49 % respectively.

In 2014 the European Parliament recommended a modernization of EU Laws governing the tender award process. In the meantime, the BIM tool has already become mandatory for publicly financed building projects in such countries as the UK, The Netherlands and Denmark. All other EU countries should follow by 2016, following the EU Commission's calculation of potential savings of between 5 and 20 %. Given an estimated tender volume of around 2 trillion euros this cost reduction of around 5 % would offer annual savings of at least 100 billion euros to the public purse. (See Verkstadsforum. se, 01/2014)

## corporate profile

### architects and engineers for excellent buildings

ATP architects engineers is Europe's leading integrated design office. With its headquarters in Innsbruck (AT), the ATP Group has integrated design offices in eight European locations (Innsbruck, Vienna, Munich, Frankfurt, Zurich, Zagreb, Budapest und Moscow).

ATP's architects and engineers work as equal members of interdisciplinary teams from the first day of every design project. Managed by an overall project leader, this simultaneous process is based on the collective development of a virtual building model (BIM).

This enables the buildings designed by ATP to meet their defined objectives in the areas of sustainability and lifecycle. Amongst other things, ATP is a founding member of the DGNB e.V., the German Sustainable Building Council, and the ÖGNI, the Austrian Sustainable Building Council and a founding member and member of the board of the IG Lebenszyklus Hochbau.

ATP is the world's first architectural and engineering company with a certified integrated design approach (Quality Management ISO 9001, Environmental Management ISO 14001).

The two in-house research companies ATP sphere and ATP sustain enable the latest findings from ATP's system and technological development work to flow into the design process. Such upstream research companies support potential clients in the development of their core processes and the transformation of their business vision into realizable project strategies.

#### Core Competence - Integrated Design (ID):

This is an interdisciplinary and simultaneous design process. ID is a prerequisite for lifecycle-optimized buildings which meet the economic, ecological and socio-cultural objectives of their users. ID combines the intelligence of interdisciplinary knowledge at each stage of a project with creative innovation as a means of creating the basis of a "good building".

ATP is an integrated designer. Within ATP, ID is represented by the perfect interaction between the architects, structural, mechanical and electrical engineers and site supervisors from ATP's own offices. Working in close, interdisciplinary cooperation these teams strive to find the best solution and ensure the highest quality of constructional implementation – optimized since 2008 through the information provided by the use of BIM (Building Information Modeling). A data model provides a constant representation of the process, from the first idea via all virtual variants of the design and the real building process to the lifelong operation of the building.

The ATP Partnership was created in 1990. It enables a large number of employees to demonstrate corporate responsibility and to participate in corporate success. Partners, associate partners and associates embody ATP's corporate culture. Members of the partnership are distinguished by their entrepreneurial and professional skills and their cross-disciplinary commitment – as exemplified, for example, by the launch of the ATP Academy or by the company's investment in knowledge management, the promotion of women and families.

In 2015, ATP has nine partners (shareholders), 25 associate partners and 62 associates. This means that around 20 % of employees are currently members of the partnership.



#### Vision:

We want to change our world for the better through excellent buildings.

Founded: 1951
Pioneer of integrated design in Continental Europe (since 1976)

Employees: approx. 550

Partners (Shareholders):
Christoph M. Achammer
Ulf Bambach
Gerald Hulka
Robert Kelca
Marc Mark
Thomas Mattesich
Horst Reiner
Dario Travas
Alfred Wegmann

8 European integrated design offices:
Innsbruck
Vienna
Munich
Frankfurt
Zurich
Zagreb
Budapest
Moscow

Research companies: ATP sustain ATP sphere

#### Design sectors:

- Production and logistics
- Retail and entertainment
- Offices and administration
- Health
- Education and research
- Tourism
- Housing
- Multifunctional centers
- Urban planning

Vienna University of Technology: Since 2001, Professor Christoph M. Achammer has headed the Department for Industrial Building and Interdisciplinary Planning of the Vienna University of Technology, Institute for Interdiciplinary Building Process Management

www.industriebau.tuwien.ac.at

#### Consulting services:

- real estate development services
- foodfab consulting for food production facilities
- lifeline organizational planning in the health sector
- plandata data processing