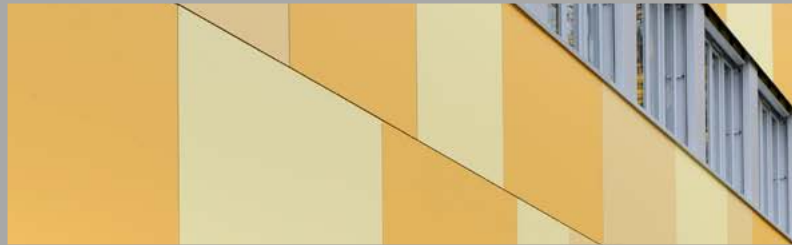


MODU



LAR



BUILD



INGS



EDUCATIONAL
BUILDINGS



MODULAR BUILDINGS

ROOMS ARE INTENDED TO DISCOVER THE AMAZEMENT ABOUT THE DIVERSITY, THE MYSTERY AND THE MAGIC OF EVERYDAY PHENOMENA

Prof. Loris Malaguzzi, co-founder of and inspiration behind the Reggio educational approach



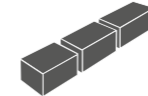
50
YEARS
ALHO

01

p. 04-07

ABOUT
ALHO

Building the future – space for education
Modular building expertise for over 50 years



02

p. 08-15

BUILDING
WITH
MODULES

Series construction with room modules
Certified sustainability
Fast construction, for certain
Clean, quiet construction in existing contexts



03

p. 16-19

MODULAR
COMPONENTS

Educational components - individuality in series
Intelligent solutions for educational buildings



04

p. 20-23

CHILDREN'S
NURSERIES
& DAYCARE
CENTRES

Creating scope for little ones
References for daycare centres – spaces to
feel at home



05

p. 24-27

SCHOOLS

Model schools for modern teaching
References for schools – top marks for modular
construction



06

p. 28-31

UNIVERSITY
BUILDINGS

Universal solutions for research and teaching
References for universities – the perfect learning
environment



07

p. 32-34

REFECTO-
RIES

Attractive and functional – refectories for school
and university
References for refectories – well looked after

BUILDING THE FUTURE SPACE FOR EDUCATION

Times have changed: For many families, it is normal nowadays for both parents to work. Childcare is an important factor here.

Ever since there has been a legal right to all-day childcare for the under-threes, the expansion of pre-school childcare facilities has been increasing steadily. But there is still a need for action here – not least because of the rise in the birth rate and immigration numbers.

So far there is no legal right to all-day school provision. Developing good, reliable all-day care facilities has become an urgent need. Many cities and local communities are also experiencing a high influx of school-age children. This is combined with a backlog of school repairs that has been ignored for years.

Things are also getting tight at German universities, which are currently attended by more students than ever before. The result? Lectures full to bursting and over-subscribed seminars.

You can build a sustainable future with ALHO educational buildings. The following pages will show you some of the advantages of modular construction.

” *Modular construction is the future. The extremely short construction period and, above all, the precision of the elements that are prefabricated in-house are unbeatable.*

Peter Schnatmann, schools architect



MODULAR BUILDING EXPERTISE FOR OVER 50 YEARS

For over 50 years, ALHO has been successfully producing modular buildings as a sustainable alternative to conventionally constructed buildings. It all started in 1967 with an assembly workshop for series construction of site cabins. In 1971, ALHO started producing standardised mobile room units, proving that standardisation and the desire for comfort are not mutually exclusive.

Over time, permanent stationary solutions – today's room modules – were added to the range of products. Today, modular construction is at least the equal of conventional building methods when it comes to quality and durability.

Facts about the ALHO Group:

- Over 1,000 employees
- 5 production locations in Germany, France and Switzerland
- 72,000 m² production space
- 10 branches in Germany plus sales offices in Belgium, France, Luxembourg and Switzerland
- Manufacturing capacity of 12.000 modules each year

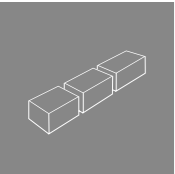


” Reliability, partnership and not least consistent customer focus make ALHO as distinctive now as it was when it was founded.

Albert Holschbach, founder of the ALHO Group



ALHO administration building and production unit at the Morsbach site

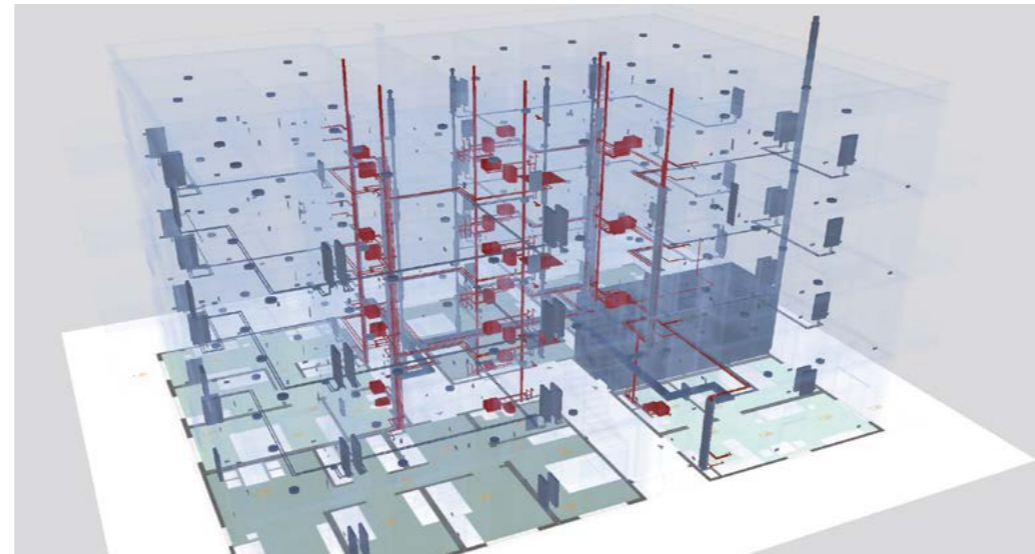


SERIES CONSTRUCTION WITH ROOM MODULES

At the ALHO "room factory", we are your partners in every phase of the work – from initial consultation to completion of the building. By the time they start their journey to the site, the individual modules are already 70% industrially prefabricated using lean manufacturing processes.

The deployment of the trades involved in the production process can be ideally coordinated. This provides the optimum, calculable conditions for planning – always consistent, allowing the progress of the project to be precisely predicted. This is how we can guarantee fixed prices and fixed handover dates.

On site, the modules are assembled cleanly and quietly in just a few days, and thanks to the dry wall materials used, they can be fitted out in a few weeks so that the building can be occupied immediately. Our many years of experience in modular construction and professional project management reduce the construction time by up to 70% in comparison with conventional building methods.



01

INTEGRAL PLANNING

ALHO plans buildings on the basis of BIM guidelines, incorporating all the relevant specialist disciplines.

03

CLEAN & QUIET SITES

The construction time on site is only around 10 weeks. Noise and dirt pollution are reduced to a minimum.



02

INDUSTRIAL MANUFACTURE

The room modules are up to 70% prefabricated in-house, using lean manufacturing methods and independently of weather conditions. Continuous monitoring guarantees the highest quality.

04

FAST BUILDING HANDOVER

Thanks to the parallel process of module manufacture and assembly, the construction time is shortened by 70% in total.



SUSTAINABILITY SIGNED & SEALED BUILDING SYSTEM WITH DGNB

Keeping the ecological footprint to a minimum from the optimised use of resources throughout the life cycle of a building is a priority for ALHO and its modular construction. The construction system has been awarded the Multiple Certificate in gold by the German Association for Sustainable Building (DGNB).

The DGNB certification system for sustainable building is intended to describe and assess objectively the sustainability of buildings and districts. Quality is the widest sense is assessed, throughout the complete life cycle of the building. The system considers all the essential aspects of sustainable building. These are the six general areas of ecology, economy, socio-cultural and practical aspects, technology, processes and location.

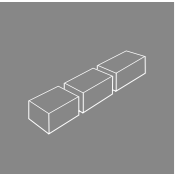


” Sustainability is also understood to be an expansion of the concept of democracy to future generations.

From the Mission Statement of the DGNB



Fixed costs. Fixed deadlines. Finished fast.



FOR CERTAIN FAST CONSTRUCTION

ALHO stands for 100% reliability in planning and construction. The timetable for a new build, alteration or extension in the education sector is often based on a very tight time frame – the construction period is usually during the holidays.

Because of the type-specific static calculation, existing fire protection reports and many standard details tested over many years, modular construction methods offer one major advantage: The approval phase, especially for processing the planning application, is considerably shorter for modular buildings.

Integrated planning and the high level of industrial prefabrication of the room modules, which are produced independently of the weather, reduces the construction period by 70% compared with traditional building methods. The construction time on site – module assembly and finishing – only takes 10 to 14 weeks on average.

ALHO is prequalified and ISO-certified as a general contractor for public-sector building projects.



01

Whilst the modules are being manufactured in the factory, ...



02

... the foundations are being dug on site.



03

Then the assembly of the ground floor starts...



04

... and is completed within a few days.



05

The second storey is assembled ...



06

... and the construction of the building is progressing quickly.



07

The next stage is the third floor of the school.



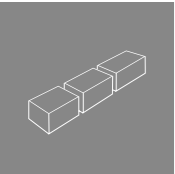
08

The assembly of the 3.000 m² Building ...



09

... is finished after two weeks.

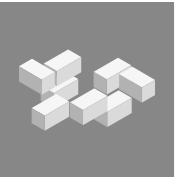


CLEAN AND QUIET CONSTRUCTION IN EXISTING CONTEXTS

Whether it's a new build or an extension: Modular buildings can be easily integrated into the existing building stock at the respective site. The clean and quiet construction site, which is typical for industrially prefabricated room modules, is a major advantage. Especially if a nursery, school or university is to be extended during ongoing operation. And – in contrast to conventional buildings – the modules can be completely removed.

Thanks to the up to 70 percent prefabricated room modules, the only things remaining to be done on site are the façade, the roof and cross-module connections. Noise and dirt nuisance on the construction site are thus reduced to a minimum.



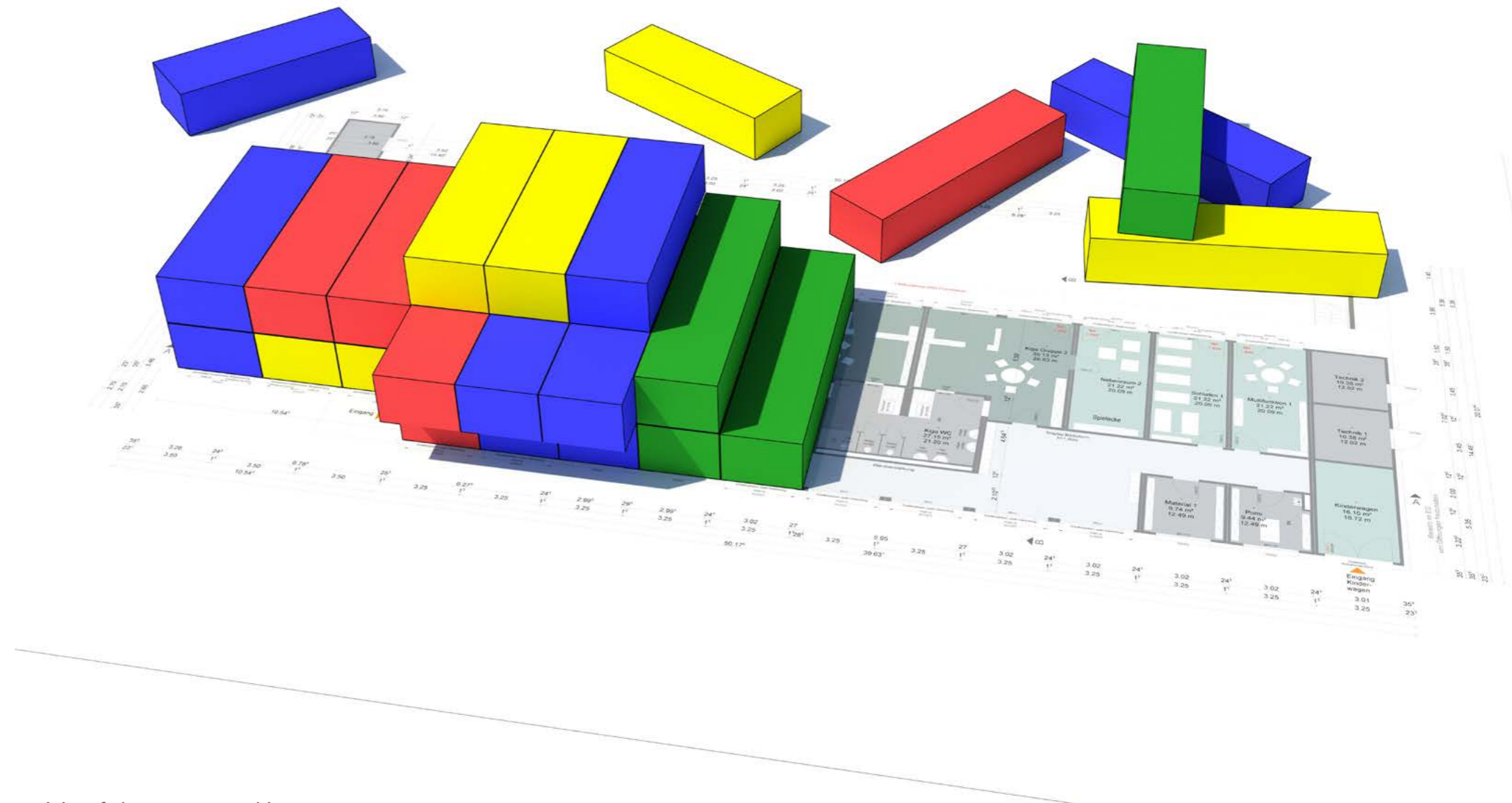


EDUCATIONAL COMPONENTS INDIVIDUALITY IN SERIES

Three-dimensional room modules pre-fabricated in the “room factory” are joined together like giant Lego bricks into children’s daycare centres, nurseries, schools, university buildings and refectories.

The room modules, based on an orthogonal grid, can be aligned and stacked to create attractive buildings using the modular principle.

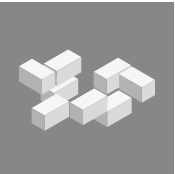
The geometry of the building can be adapted flexibly to the situation on hand – especially when building in existing contexts.



” *In childhood, the “Lego system” has inspired the creativity of almost every architect across the globe.*

The self-designing toy, with its endless variety of design options, the possibility of taking it all apart and putting it back together differently, was made possible with these modular plastic bricks.

Gesa Mueller von der Haegen, architect, scenographer and town planning specialist



INTELLIGENT SOLUTIONS FOR EDUCATION

Children's daycare centres, nurseries, schools, university buildings and refectories all have one thing in common: flexibility is essential.

Years with high and low birth rates, changes in use requirements caused by the need for all-day care, inclusion or changing educational approaches – the challenges that contemporary educational establishments have to meet are very tough.

ALHO modular buildings have been offering the advantages of short construction times, fixed deadlines and fixed prices for many years. Quality you can count on, for the wellbeing of everyone – children, pupils, students and educationalists: This is what ALHO provides with its high-quality, quality-tested building materials and equipment.



01



NURSERIES & DAYCARE CENTRES

ALHO uses modular construction methods to build sustainable nurseries in which youngsters simply feel good.

03



UNIVERSITY BUILDINGS

ALHO modular university buildings enables to react quickly and flexibly to fluctuating student numbers.



02



SCHOOLS

ALHO school buildings can be built on site in just a few weeks.

04



REFECTORIES

ALHO refectories provide space to switch off and relax when you have to spend all day at school or on the university campus.

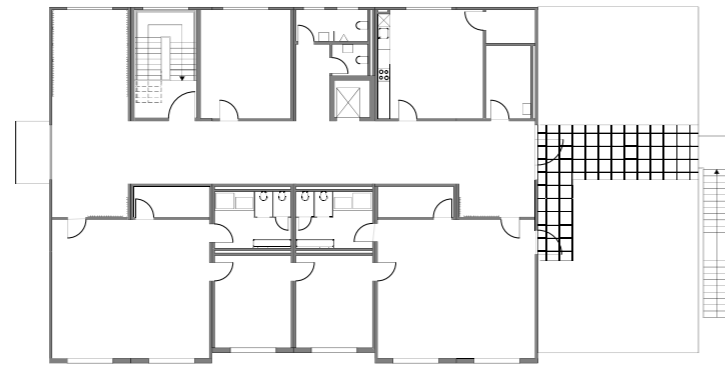




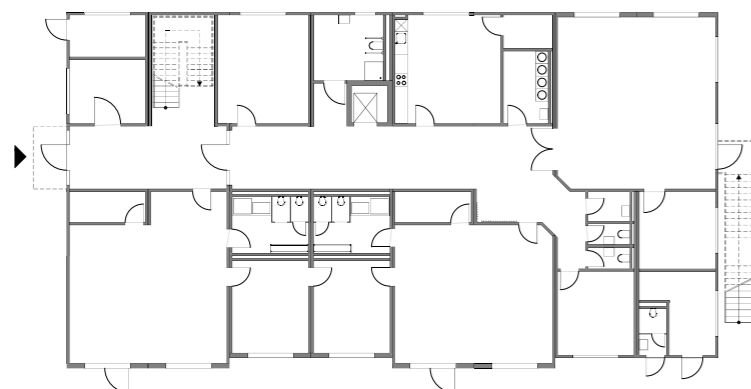
CREATING SCOPE FOR LITTLE ONES

Rooms that offer sufficient opportunity for withdrawal and for active play that stimulate the senses through lights or a wide range of shapes and materials: All sorts of requirements have to be taken into account when planning a nursery. Inclusion requires additional accessibility, and energy efficiency and also requirements concerning energy efficiency and ecology must be taken

into account. The building materials used must be suitable for healthy living and ensure a pleasant indoor climate and absolute reliability in terms of fire prevention. Because of the ecological and economic advantages provided by modular construction, ALHO is making a valuable contribution to creating sustainable nursery buildings where children can feel at home.



Floor plan, first floor



Floor plan, ground floor



Floor plan examples are available to download on our website.





REFERENCES FOR DAYCARE CENTRES SPACES TO FEEL AT HOME

To make sure that the little ones in feel comfortable in our daycare centres, nurseries and crèches, our priority is to develop architectural solutions that are explicitly tailored to your needs and to modern educational approaches.

01

BERLINER DISTRICT, MAINZ Reference project for the DGNB Multiple Certification of the ALHO daycare centre building system in gold



02

FRIEDRICH-EBERT-STRASSE, MAINZ The three-story daycare centre provides plenty of space for its young users. The roof terrace is an ideal play area.



03

“CHEMIN ROUGE”, LUXEMBOURG Daycare centre designed for over 200 children



04

“ZAUBERHÜGEL”, NEUSS The covered entrance area is formed from freely projecting modules.

05

FERRY-PORSCHE-DAYCARE CENTRE Company daycare centre of Porsche AG in Weissach

06

WEINGARTEN-STRASSE, DORTMUND The first EnergiePlus child daycare centre in Germany to be built using modular construction



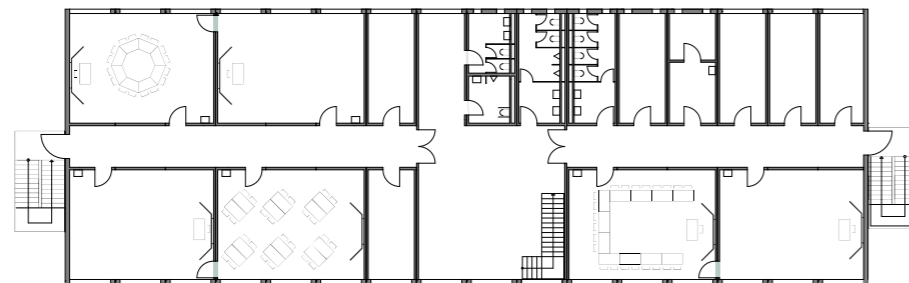
Do you need any further information about our child daycare centres and nurseries? You can order our reference leaflet today.



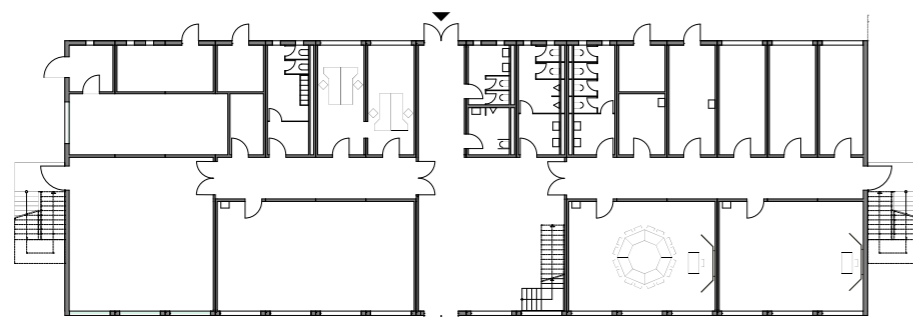
MODEL SCHOOLS FOR MODERN TEACHING

When planning a new school building, an extension or additional storeys with ALHO, you can rely on a needs-based implementation in compliance with the latest school construction and GUV health and safety regulations. Fluctuating pupil numbers, changes in room layout at short notice, combining or dividing classrooms in line with modern educational approaches –

nowadays schools must be able to adapt to changing circumstances. The loadbearing steel frame structure of the room modules with non-loadbearing internal walls makes this possible without any problem. ALHO school buildings are made of recyclable, quality-tested materials and provide a pleasant, natural and healthy learning environment.



Floor plan, first floor



Floor plan, ground floor



Floor plan examples are available to download on our website.





REFERENCES SCHOOLS TOP MARKS

Lack of space for all-day attendance, refurbishment backlogs, fluctuating pupil numbers or new educational approaches: The reasons for for new and re-construction are manifold with room modules are manifold and always a good choice.

01

BERNER STRASSE, MUNICH

The school pavilion is designed on the "learning house" principle.



02

GGS FILCHNER-STRASSE, MÜLHEIM A.D. RUHR

The extension to this community primary school was built during the summer holidays.



03

FRIEDRICH STOLTZE SCHOOL KÖNIGSTEIN

This specialist classroom building was designed specially for teaching science and technical studies.



05

ST. GEORGE INTERNATIONAL SCHOOL

With modular construction, extra floors can easily be added while the school is still operating.



06

MAISON RELAIS "PAPAGEIEN-INSEL"

In line with the name of this pre-school and primary school, the cheerful chatter and happy, care-free life of the children is reflected in the building.



04

LTPS, MERSCH

Floor-to-ceiling windows alternating with window panels, coloured and transparent areas and setbacks create an attractive facade.



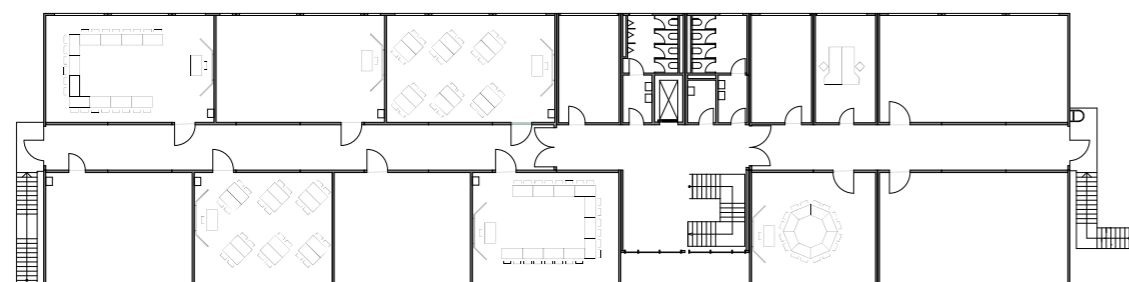
You will find further references for ALHO modular construction school buildings in our reference booklet. Just order it now!



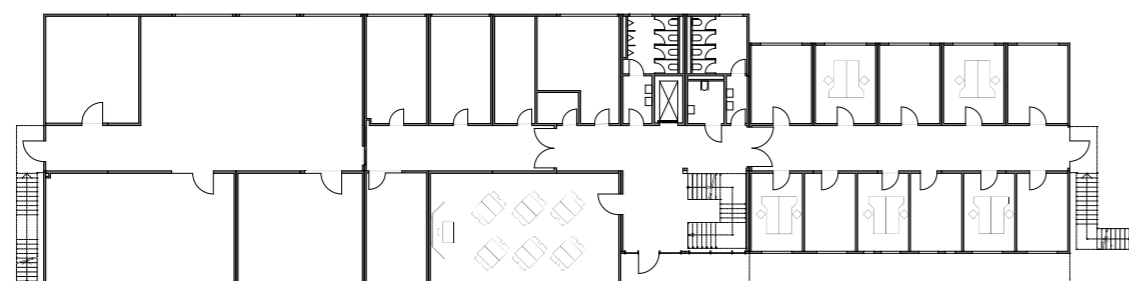
UNIVERSAL SOLUTIONS FOR RESEARCH AND TEACHING

In Germany, more people are studying than ever before. As a result, students and lecturers are suffering from overcrowded lectures and seminars. There is a huge need for more space in university buildings. This is where our modular buildings provide the ideal solution, in the form of lecture halls, seminar rooms, offices and student accommodation, for example.

If there are changes in the room requirements, ALHO university buildings can be flexibly expanded, repurposed or relocated or completely dismantled. Modular university buildings can create tailor-made solutions with short construction periods – at fixed dates and for a fixed price. Flexible, sustainably designed, resource-saving and high-quality.



Floor plan, first floor



Floor plan, ground floor





REFERENCES UNIVERSITIES PERFECT CONDITIONS

The double intake of school-leavers and rising student figures are pushing universities to their limits. Flexible, efficient modular construction solutions for laboratory buildings, seminar rooms, offices and student accommodation are the only effective response for dealing with capacity bottlenecks.



05

HALL OF RESIDENCE

Space-optimised micro-apartments for students in Lausanne provide a living area of 20 m² and come with a bedroom/living room, shower and cooking facilities.

01

SEMINAR BUILDING

The Forestry University shows its commitment to sustainability with its modular built seminar building.



06

LABORATORY

The laboratories of the European Medical School (EMS) at the Carl von Ossietzky University of Oldenburg meet the S2 safety standard of the GenTSV.



02

STUDENT SERVICE CENTRE

Study advice, examination offices, career and family services are provided beneath the same roof for students in Siegen.



03

OFFICE BUILDING

The office and seminar building of Cologne University is integrated into the existing listed building.



04

SEMINAR BUILDING

The interior design of Cologne University's office and seminar building is welcoming and attractive.



Would you like to see more references to discover all the possibilities offered by ALHO modular construction? You can order our reference leaflet now!

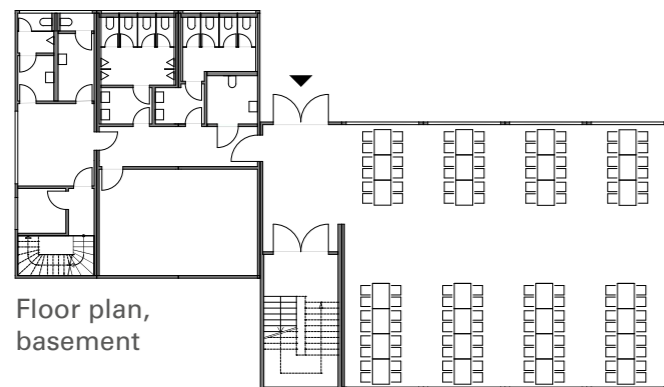
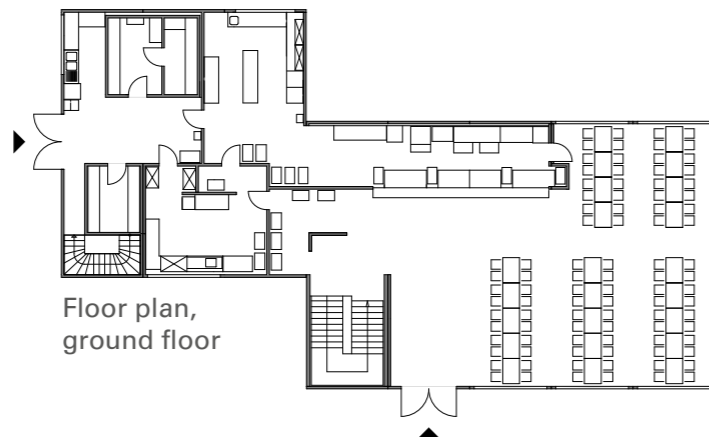


ATTRACTIVE AND PRACTICAL REFECTORIES FOR SCHOOL AND UNIVERSITY

When you're at school all day, a pleasant dining atmosphere in the school canteen is very important. Apart from the quality of the food, this also helps pupils to feel good, switch off and relax with their friends during the lunch break.

At universities, refectories also have a social function in addition to merely

providing food. The refectory is often a popular meeting place, and the quality of its design has a major impact on the attractiveness of the university as a whole. ALHO are experts in planning, installing and equipping canteens. We're happy to pass on our experience when it comes to the extensive range of building services required.





REFERENCES FOR REFECTORIES WELL LOOKED AFTER

In addition to the quality of the food, a pleasant atmosphere in the canteen is one of the most important factors in successfully catering for pupils and students. Feeling comfortable, switching off, being with friends – an attractive refectory is just the right place.



04

CATERING KITCHEN INGOLSTADT We are happy to share our expertise in the planning, installation and equipment of catering kitchens.

01

SCHOOL CANTEEN LUXEMBOURG The fittings in the canteen of the private St. George International School are futuristic and of the highest quality.



02

CAFETERIA The cafeteria is an open, friendly meeting place on the campus of the Goethe University in Frankfurt.



03

SCHOOL CANTEEN FORST The canteen was built in the school holidays to cope with the change-over to all-day school attendance.



05

SCHOOL CANTEEN MUNICH Plenty of white, wood and green create a light, friendly atmosphere.



□ Production site
● Office

ALHO SYSTEMBAU GMBH

Postbox 1151
D-51589 Morsbach
Tel. +49 2294 696-111
Fax +49 2294 696-277
info@alho.com
www.alho.com

ALHO SYSTEMBAU AG

Industriestrasse 8
CH-4809 Wikon
Tel. +41 62 746 86 00
Fax +41 62 746 86 10
info@alho.ch
www.alho.ch

ALHO SYSTEEMBOUW

Industriepark Zone 2
Interleuvenlaan 62 / b44
B-3001 Leuven
Tel. +32 16 397-838
Fax +32 16 397-840
info@alho.be
www.alho.de

ALHO SYSTEMBAU S.À R.L

4, Avenue des Hauts Fourneaux
L-4362 Esch-sur-Alzette
Tel. +35 22 6175443
Fax +35 22 6573127
info@alho.lu
www.alho.lu



MODULAR BUILDINGS