

DIGITAL EDUCATION

WE ARE NOT TALKING ABOUT DIGITAL EDUCATION, WE IMPLEMENT IT!



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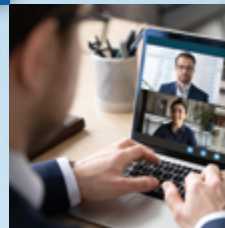
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COMMUNITY BUILDING

INTO THE FUTURE WITH A SUSTAINABLE NETWORK

THE MEANING OF A SUCCESSFUL NETWORK

Digitalization is penetrating all areas of society. There is no global institution that drives and regulates developments. Rather, everyone has to find the right way of digitization for themselves. This is a major challenge for companies, and in particular for training institutions, schools and universities. The networking of disciplines and know-how will play an increasingly important role in the future.

What does digitalization have to do with community building?

Most companies try to keep up with current developments and to go along with and implement the most important steps in digitalization. Digitalization raises many questions that are nowadays often answered and decided single-handedly.

Overarching action by everyone – across generations, disciplines and industries – would be urgently required and expedient. This change in the thinking and acting of those responsible and of every single person can only be achieved if you act in a network.







The digital change requires all of us to be willing to educate. Education and training in digital media and the use of digital tools are the central prerequisites for driving this change forward. Anyone who does not receive any further training or actively builds up a network runs the risk of losing touch.



COMMUNITY BUILDING OVERVIEW

We network all generations!

Because of this change, which encompasses all areas, it is very difficult to develop a generally applicable concept. Therefore we have to create a network and educational offers that can be the basis for progressive, yet sustainable, digitization.

-  70 Events per year
-  More than 4.500 Attendees
-  In 7 Countries
-  More than 50 Universities
-  Over 150 Schools
-  Over 50 Companies

With our community to your success!



COMMUNITY BUILDING

INTO THE FUTURE WITH A SUSTAINABLE NETWORK



OUR UNDERSTANDING OF COMMUNITY BUILDING

We don't just talk about it, we make it happen!

Our understanding is based on the principle of education. That is why we interact and cooperate with training institutions and schools of all kinds as well as universities and companies.

We initiate educational offers that should make it easier to get started with technology. We want to start in many places at the same time with initially small activities that require little effort.

We then expand these step by step in quick succession and network them with other parallel activities. With this multilateral approach, we generate a high rate of progress. If a project turns out to be unsuccessful and not productive, we use the knowledge gained for new projects.

BENEFITS

How to benefit from our community!

- Our community building encompasses all age groups and stakeholders
- Networking with schools, universities, institutions and companies
- Knowledge and know-how transfer
- Building strategic partnerships
- Recruiting of young talents
- Participation in innovative events such as MAKEATHONS
- Worldwide networking

COMMUNITY BUILDING EVENTS





SMART GREEN ISLAND

INNOVATIVE SMART & GREEN EDUCATION PROJECTS

PROMOTING DIGITAL AND CLIMATE FRIENDLY FUTURE PROJECTS

The world is going through a massive upheaval. Technological, social and climatic conditions are changing at an increasing rate. Entire industrial sectors such as the automotive industry are changing at a rapid pace. Climate change seems to be accelerating more and more, the hot weather periods with temperatures above 40 degrees Celsius alternate with strong storms. Although there are many discussions, talks and protests, the responsibilities are often only shifted back and forth. That is why we launched the "SMART GREEN ISLAND" project at the end of 2016.

Innovation center of the future

Together with motivated minds from diverse disciplines, generations and nations, we would like to develop technologically smart concepts and solutions to show how a (GREEN) life is possible in harmony with nature.

Therefore, our vision is to use the island of Gran Canaria to demonstrate how a closed cycle between energy generation and energy use can be achieved in a smart way, while at the same time preserving existing natural resources.

In addition to the sustainable use of energy, we also focus on all other areas of daily life. How do we shape our future together in a modern and climate-neutral way?



The needs of the countries of the world with regard to a life compatible with the environment, are very variable due to different economic and climatic conditions. In order to act out as many different scenarios as possible in a geographically compact and thus resource efficient way, we chose Gran Canaria.

The island with a radius of about 45 km is a sort of continent of its own due to its unique geographical location with its 14 climate zones. The proximity of Gran Canaria to Africa and the location in the Atlantic mean that solar and wind energy are available in almost unlimited quantities.

This energy could be used to advance digital and climate-friendly future projects and to carry the prototype-like solutions out into the whole world.



SMART GREEN ISLAND MAKEATHON HISTORY

We don't talk about Digital Education, we implement it!

To advance future digital and climate-friendly innovations, we initiated the first SMART GREEN ISLAND MAKEATHON in September 2016 with 40 participants. Only 30 months later, we were able to increase the numbers tenfold and inspire 400 participants for our event.

In 2020 there were over 500 registrations. Thus, the "SMART GREEN ISLAND MAKEATHON" has established itself as a successful, innovative and international model of success.

With each additional "MAKEATHON" the vision of a "SMART GREEN ISLAND" is further promoted so that Gran Canaria can become an exemplary climate-neutral island.

KEY FACTS

During our MAKEATHONS the participating Young Talents have always developed new ideas and solutions in the fields such as Smart Home, Smart City, Smart Production, Robotics, AI, IoT, Smart Mobility, Smart Farming, Smart Health and Smart Green Energy.

- 5 Makeathons**
- Over 1000 Participants**
- With 30 Nations**
- With 150 Universities**
- Over 200 Ideas**
- 250 Prototypes**

SMART GREEN ISLAND MAKEATHON IMPRESSIONS





MAKEATHONS

INNOVATION THROUGH EDUCATION 4.0

SAVE AND SHAPE OUR FUTURE WITH INNOVATION FESTIVALS

Innovative minds secure the company's future – but how to find them? In particular, professionals are wanted with knowledge in the areas of IoT, Robotics, Artificial Intelligence, Smart Automation, Smart Mobility or Smart Green Energy. We therefore organize innovation festivals (MAKEATHONS) to train young talents to become innovative and creative specialists and bringing them into direct contact with companies to jointly develop creative, technical projects.

MAKEATHON a plus for innovation?

"MAKEATHON" is a play on words from "MAKE" and "MARATHON" and is an innovative and creative educational event at which young talents create and develop innovative prototypes and technological concepts in the shortest possible time. The practical requirements (Industry Challenges) often come from companies that want to have a suitable software or hardware solution developed for their own problem. Participants are young talents (students, trainees and generally interested), which are split into agile and interdisciplinary teams.

We bring together companies, universities and students who, as a common denominator, simply enjoy designing, constructing and programming. The results are usually remarkable and it is astonishing how quickly the young talents implement creative ideas.



MAKEATHON OVERVIEW

We "MAKE" on a national und international level

What new ideas for a digital future can look like or how recruiting talented developers in the competition for talented professionals can work, ITQ already has shown many times.

 30 Makeathons  More than 3000 Participants

 In 6 Countries  With 350 Universities

 Over 1000 Ideas  1100 developed Prototypes

Be part of our innovative MAKEATHON Community!



MAKEATHON HISTORY

We don't talk about Digital Education, we implement it!

Nowadays everybody talks about Education 4.0 and innovation. But there is often more said than done. We have been promoting young talents and bringing them together with companies for years by developing ever new concepts and formats.

Our idea of holding a MAKEATHON came up in Munich in 2016 and immediately proved itself as an excellent educational concept. Since then, we have been continuously developing this format and implemented it in many other countries. In the meantime, we connect companies, industrial associations, universities, institutions and schools not only in Germany, but also worldwide.

BENEFITS

How you benefit from our cooperation

- Development of new ideas and concepts
- Recruiting of qualified young talents
- Knowledge and know-how transfer
- Development of technology cooperation
- Initiation of new business models
- Development of your Industry Challenge
- Networking with companies, universities and students
- Part of a national and international innovation community

MAKEATHON HIGHLIGHTS



LEGO WORKSHOP

LEARN TECHNOLOGY IN A PLAYFUL WAY

LEARNING AGE-FREE FOR THE TECHNOLOGY OF THE FUTURE

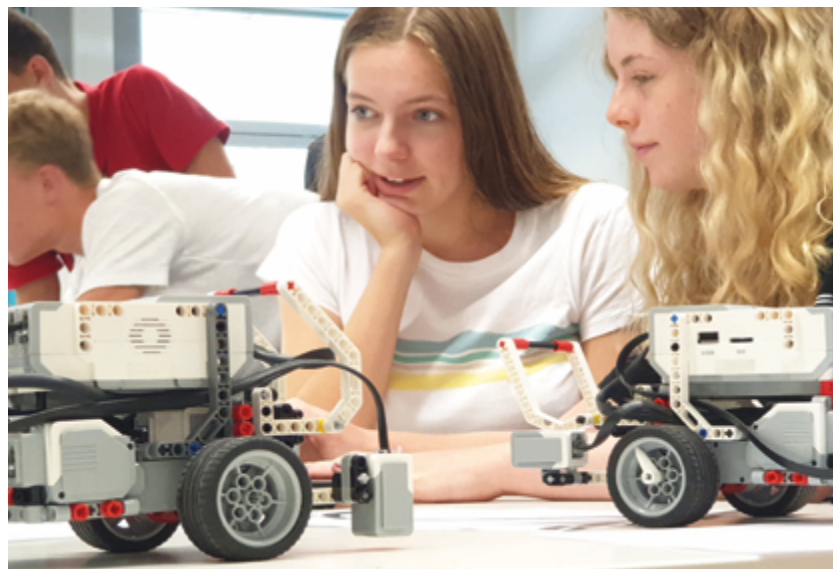
When it comes to promoting key skills for the 21st century, we offer versatile technology workshops with our LEGO Education training concepts. Whether it's for schools, educational institutions, training centers, universities or to introduce technologies for adults and companies – with LEGO Mindstorms EV3 or LEGO WeDo Education, programming and future technologies can be conveyed in a playful way.

Innovative learning concepts for young and old

Everyone knows the colorful Lego blocks as toys. But the small stones also have great potential for education in didactics.

With our technology workshops, we can use the action-oriented learning concepts from LEGO Education to teach pupils and students of all ages the basic technical connections that will be required in future professional life. With practical teaching concepts, learners are encouraged to think independently and to work creatively on innovative solutions.

Through hands-on experimentation and testing, children and adolescents learn to understand complex issues, question them critically, and to develop their own ideas and solutions creatively. In training and further education, the learning system is also suitable for modeling, analyzing, and programming industrial processes.



LEGO WORKSHOP OVERVIEW

We teach technology with a lot of fun!

Getting young people, and girls in particular, enthusiastic about technology is the basis for securing qualified young people in German companies. The transfer of technical knowledge should be prepared in such a way that young people have fun discovering technology for themselves.

 300 Workshops

 More than 9000 Participants

 In 5 Countries

 150 Schools and Universities

 35 Competitions

 40 Companies

With our innovative education concepts, we secure the young talents of the future!



LEGO WORKSHOP HISTORY

We don't talk about Digital Education, we implement it!

Since 2011 we have been inspiring with our worldwide LEGO Education learning concept not only children and teenagers but also girls for technical projects. Our training concept is based on the proven top-down principle, in which young students are instructed and trained from our ITQ LEGO coaches.

In addition to technical content, the program also includes soft skills for dealing with children and young students. The students, who are coached by students, build robots with sensors, motors and many colorful Lego bricks in our LEGO Mindstorms workshops.

In the next step, students who have participated in a workshop can pass on their knowledge to other elementary school pupils.

BENEFITS

How you benefit from our cooperation

- Training of qualified young people
- Learn programming skills
- Use of future technologies
- Networking with schools, universities institutions and companies
- Practice-oriented learning concepts
- Teaching technology to children and young people
- Know-how and knowledge transfer
- First introduction to high-tech
- Coaching and support

LEGO WORKSHOP HIGHLIGHTS





ITQ

TECHNOLOGY WORKSHOP

LEARN TECHNOLOGY IN A PLAYFUL WAY

INSPIRE THE YOUTH OF THE FUTURE FOR TECHNOLOGY

How do you get young people excited about technology? That's a good question many companies are dealing with these days. In order to get our youngsters enthusiastic about science and future technologies as early as possible, we have been offering numerous innovative technology workshops for children and young people for many years. The technical education of girls is particularly important to us. With our workshops, we would like to support all children and adolescents in reducing fear of contact with complex technology.

Explore technology early

Whether smartphone or game console technology is in many everyday things with which children and adolescents are confronted very early on. Also, the speed of technological change is increasing.

Therefore, more and more specialists are needed who research, develop and are familiar with future technologies. In our technology workshops, we use mini-robots, LEGO Education, turning and soldering stations to teach children and pupils of all ages the basic technical connections that will be required in future professional life.

The focus is on creativity and fun using technology. Children and students learn technical challenges in a playful way and learn how to develop solutions. This contributes lifelong learning since this enthusiasm for technology is stimulated from childhood and is maintained until adulthood.



TECHNOLOGY WORKSHOP OVERVIEW

We teach technology with a lot of fun!

Getting young people, and girls in particular, enthusiastic about technology is the basis for securing qualified young people in German companies. Technical knowledge should be prepared in such a way that young people have fun discovering technology for themselves.

 150 Workshops

 More than 4500 Participants

 In 3 Countries

 With 50 Schools, Institutions

 10 Trade Shows

 With 15 Companies

Secure the next generation with the right technology workshops!



TECHNOLOGY WORKSHOP

LEARN TECHNOLOGY IN A PLAYFUL WAY



TECHNOLOGY WORKSHOP HISTORY

We don't talk about Digital Education, we implement it!

Since 2011 we have been delighting children and young people of all ages with our technology workshops in kindergartens, schools, or educational institutions.

With the help of our specially trained technology coaches, we can use simple technical means to reach a range of young people who we can support for hand-crafts, development, and even programming.

Our training concept is based on cooperation with various German universities. In the past few years, we have trained more than 500 students as technology coaches.

These were able to convey technology playfully to over 4500 children in our technology workshops at numerous international trade fairs or in schools on site.

BENEFITS

How to benefit from our workshops

- Early promotion of young talents
- Learn technology interactively, and playfully
- Use of various technologies
- Networking with schools, universities, institutions, and companies
- Practice-oriented learning concepts
- Teaching technology to children and teenagers
- Knowhow and knowledge transfer
- First introduction to high-tech
- Coaching and support

TECHNOLOGY WORKSHOP HIGHLIGHTS



REMOTE COLLABORATION

INTERDISCIPLINARY WORK FROM ANYWHERE

CHANGING WORK ENVIRONMENTS

Today's business world has significantly changed in many areas due to advancing digitalization. A few years ago employees were impressed by modern office furnishings or lounge areas, nowadays they are interested in completely different things. Over the years there has been a growing trend towards working from home or away from the company's headquarters. In order not to suffer any losses in productivity and efficiency, a strategic approach, known as remote collaboration, is recommended.

Taking employee loyalty a step further

It is of existential importance for companies to find innovative specialists and to retain them in the long term. This only works if employees are given a certain amount of freedom to develop their personality and if they can make decisions by themselves.

Nowadays, employees want their work and private life to be equally balanced. Therefore, the work should be done remotely, i.e. independent of location and as flexible as possible in terms of time.

Other reasons for remote working are, for example, joint projects with employees at different, often international, locations. Likewise, global pandemics and necessary restrictions on human contacts have made remote collaboration essential these days.



Same same, but different

If employees work spatially separated from one another and at different times on a joint project, the same security standards must be met as when working in the office.

Employees can work particularly efficiently if familiar tools and applications are retained or simplified through digital work. In addition to the right tools, the processes for distributed work must also be suitable.

Defining these processes together and convincing employees of the advantages in training, is a holistic approach that is lived at ITQ and our customers.



SOLUTION

Strategic planning leads to success!

The work orders and goals naturally remain unchanged even remotely. But with the same commitment, employees move just as much, regardless of location and time, compared to their classic nine-to-five shifts in the office. Working remotely is often much more efficient. During the strategic implementation, employees have to maintain personal contact with each other through clearly defined and efficiently used communication tools such as chats, video and audio telephony and online

meetings. Asynchronous communication is just as important and involves a little extra effort. Since face-to-face communication and door-to-door conversations can no longer take place, regular drafts and reviews should be created and virtually shared with teammates.

Important decisions and solutions for the later course of the project must also be documented and archived in an easily accessible manner for all team members.



“Our communication culture is aimed at our colleagues, not our offices.”

Dr.-Ing. Rainer Stetter
ITQ Managing Director
✉ stetter@itq.de

BENEFITS

At a glance!

- Flexible work from anywhere
- Integrates all employees with different living conditions
- Better work-life balance with clear rules
- Strengthens the satisfaction of the individual
- Covering important, unpopular work shifts is made easier
- Employees stay up to date with the latest technology
- Documentation “On-the-Fly”
- Less office space and fewer designer furnishings

SERVICES

Our expertise pays off for you!

- Setting up IT services with a focus on established open source applications
- Network/VPN setup and expansion
- Secure access to network and server
- Training of employees in online workshops
- Connection of private cloud solutions
- Public cloud solutions: Infrastructure as a service
- Establishing team communication with chat functions
- Motivation of employees to open up to new things