# **ROYOUTH** THE INITIATIVE FOR YOUTH OF THE ROSEN GROUP IN LINGEN (EMS)







discover your talents.



# WELCOME TO ROYOUTH

Dear Adolescents, Parents and Teachers, Ladies and gentlemen,

Welcome to ROYOUTH, the initiative for young adults. We are pleased by your interest and provide information about the activities and goals of our initiative in this brochure.

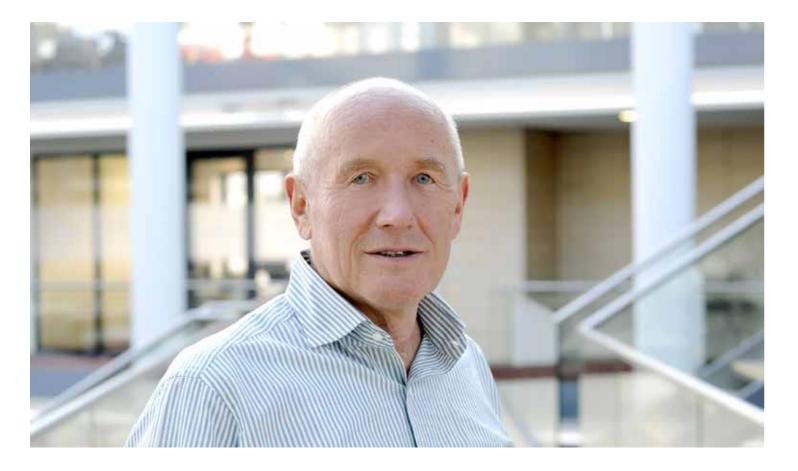
We are a partner in helping adolescents to discover and develop their individual skills. We offer an environment that enables a creative approach to tasks and the independent development of solutions. Our ROYOUTH Center is a "playground," an environment for adolescents to give themselves and their talents a try in practice while having a lot of fun.

Our ROYOUTH initiative provides plenty of opportunities to create and experiment. We have a range of offerings primarily for young people in our region. As such, we do not compete with other organizations that stimulate young people; instead, we want to support youth employment as an additional, cooperative initiative.

# ROYOUTH – discover your talents.

ROYOUTH gives adolescents the opportunity to try things out for themselves in different fields and to discover their own talents. The compass symbolizes orientation in search of the right path to new galaxies. Our slogan intends to encourage the discovery and development of individual strengths in the fields of natural sciences and technology, economics and society, and, not least, music and the arts.

It is our aim to support adolescents during their discovery of talents – as a school class, as a team in the afternoon or in the context of a competition. We are also open to suggestions from the adolescents. We accept their exciting ideas in person at the ROYOUTH Center, by phone and by e-mail, and we incorporate them into our program. We are open to (almost) any experiment. Our team is delighted by new suggestions, innovative ideas and creative collaboration.





# GREETINGS

Geniuses such as Da Vinci, Einstein and Mozart are undoubtedly exceptional cases. However, there are many talents hidden in all of us, just waiting to be discovered.

From my own experience, I can say that we often only recognize our talents in particular situations, or simply through trying something out – trial and error – until we finally discover what we are capable of, or what we are particularly good at.

For me, technology has always been an exciting subject. It is why I became an engineer: I have always wanted to know how things work, try out my talent for technology and implement new ideas. Today, the ROSEN Group, which arose from this drive, represents the technology and global market leader in pipeline inspection.

I would like to encourage young people to embark on a journey of discovery in search of their own talents. With ROYOUTH, we wish to provide guidance along the path that is right for the adolescents. The range of offerings we present in the fields of natural sciences and technology, economics and society, and music and the arts is non-commercial, meaning it is open to all those young people who enjoy discovering their talents. We do not expect anything in return, because everyone should get a chance to individually try things out at ROYOUTH while allowing their ideas and creativity to run wild!

My gratitude goes to all those who support adolescents by nurturing their talents – parents, grandparents, teachers, supporters and volunteers. They all support the most important thing we have - our children and adolescents.

Your supporter and sponsor,

Hermann Rosan

# **OUR OBJECTIVE: NURTURING TALENT**

"Explain to me, and I forget. Show me. and I remember. Let me do it, and I understand."

Confucius

We are convinced that skills develop best when we have fun doing something. We prefer not to practice the paths of the past – the focus at ROYOUTH is on fun and creativity.

We want to support adolescents discovering and developing their individual talents. Hence, it is irrelevant whether they are interested in natural sciences and technology, economics and society, or music and the arts. The ROYOUTH initiative promotes creativity, independence and self-confidence of adolescents with different activities in the morning and afternoon.

We are open to partnerships with other initiatives that pursue the same targets, and we support existing efforts with our resources. Educational institutions in the region value us as a contact for excursions, experiment days and our expertise.

Our approach is not limited to promoting "highperformance sports." We provide a wide range of young people with the opportunity to discover their individual talents. Our projects are accompanied by professional educators and guided by our team. Furthermore, we care deeply about the quality of our activities, which is why we continuously revise our pedagogical concepts to guarantee an exceedingly high, persistent quality standard.

Adolescents who have already discovered their talents can engage with experts at ROYOUTH to reach the next level of knowledge and a higher professional level together.





# **OUR TARGET GROUP**

Our initiative addresses students from the time they enter secondary school to when they start an apprenticeship or attend university. We expressly focus on both genders, and our ROYOUTH Center usually welcomes mixed-gender groups. The ROYOUTH initiative is open to all adolescents, regardless of whether their parents work for the ROSEN Group or not.

A talent for natural sciences and technology, economics and society, and music and the arts cannot necessarily be gleaned from grades. We believe that, above all, curiosity, creativity and the wish to develop skills are what distinguish "young talents" in any field. We are orientated towards individual groups regardless of origin, nationality, religious affiliation or talent and will accommodate any special needs. We are expressly committed to inclusion. ROYOUTH employs specially trained pedagogical specialists who are responsible for caring for the young people. We are committed to the talented adolescents who are among us every day but might not have discovered their talents yet. One example is the regional student research competition "Jugend forscht – Schüler experimentieren," which we have actively supported for several years. Many of the participants ended up discovering their talents and finding their way.

The focus of the ROYOUTH's work is in our region. We are active on the ground to support the education of young people and to fulfil our social responsibility.

# THE CONCEPT: SIMPLY DO IT

Increasing diversity and a great number of vocational opportunities can cause an inability to "miss the forest for the trees." Those adolescents who are most aware of their talents will find it easier to select their profession and the right path. Therefore, their ability to assess their own strengths is paramount. Because opportunities to try out their talents in different fields are missing, many adolescents are not aware of their skills.

The idea behind ROYOUTH is to find out what someone can do well by trying things out and to support adolescents in this process. That is exactly what we are about!

### SIMPLY DO IT

We promote adolescents who dare to find solutions – alone or together. Thereby, we simultaneously train important social skills such as team spirit, the ability to give and receive criticism, endurance, and pride of one's own success. In other words: ROYOUTH is an initiative that strengthens self-confidence and gives courage for the future.

We are particularly delighted whenever we can pass on our enthusiasm for ROYOUTH to the adolescents.

### Adolescents who are unsure of what their talents are:

This is a chance to try out whether natural sciences and technology might be more than formulas and inexplicable wonders for them that no one understands. They may find out they are interested in economic matters or discover a talent in music or the arts or new social skills. At ROYOUTH, they have an opportunity to find out whether they can develop a passion for a topic and want to dive deeper – through experiments, observations and playful approaches.

#### Adolescents who know what they are really good at:

Adolescents who have already discovered their talents may be looking for a deeper level of knowledge at ROYOUTH. We gladly support these adolescents as they pursue their hobbies, program robots or implement their projects at "Jugend forscht." In individual cases, we can even deploy over 35 years of our research center's know-how.

#### Adolescents looking for new experiences:

Adolescents who enjoy crafting and tinkering alone or in a team will kick in an open door at ROYOUTH. All interested adolescents are welcome to contact us in person, by phone or by e-mail. In addition, schools and associations may contact us so can develop suitable programs together.





# **OUR RANGE OF PROGRAMS**

We have compiled an exciting range of activities, which will be continuously developed, and we think that "the end of the road" has certainly not yet been reached: some actions were kick-started by the ideas of the adolescents themselves. The following offerings and themes comprise just a few examples from our portfolio. We offer a host of additional creative concepts and welcome any new ideas and suggestions.

### **EXPERIMENT DAYS**

Experiment days are the core of our education-orientated offerings. Equipped with extensive experience in the fields of research and development, we create several "experiment hours" or even entire "experiment days" for classes or groups of students. A short overview of the respective topic is followed by a longer practical section for creative testing.

Since we promote adolescents' personal initiative and creativity, we do not use previously established instructions. The "young talents" receive materials and tools and are instructed to develop their own ideas for solving the task. They are accompanied by our ROYOUTH team.

#### Fine Motor Skills Soldering Exercises

In the beginning, the adolescents "write" their names with solder on a board in order to learn to handle the soldering iron and solder. Afterwards, fantasy figures or electronic circuits such as a die or a memory game can be built. Depending on their experience and talent, we have prepared kits with different levels of difficulty for the young people.

#### **Building speakers**

In this workshop the young people build their own speakers using magnets, copper wire, styrodur, rubber band and cardboard. They also solder an amplifier and it is possible to design and decorate the speaker according to personal taste. Finally, the speaker can be connected to the mobile phone and play music.

#### **Build Your Own Wind Turbine**

Using provided materials but without building instructions, the young people work together in teams to construct a wind turbine. They then compete by comparing which plant generates the most energy. The voltage is determined using professional measuring technology.

#### Creativity in Bridge-Building

After being briefed on the way different bridges function, participants are tasked with constructing their own bridges. The aim is to find the best compromise between the bridge's own weight and its load capacity. At the end of the day, the bridges' performance and load limit are tested.

#### **Building Marble Tracks**

The task is to build a marble track on which the marble runs as long as possible. There are no building instructions to help with this task – the young people are asked to develop their own construction from different materials. Here, they can work creatively in small teams. At the end, we stop the running times of their marbles.

#### Discover the Art of Paper Folding

Following the prepared design, we fold paper planes. Also self-made designs can showcase their flying ability. In the end, we measure to see which model is the most aerodynamic and thus flies the farthest. In addition, participants will try out various folding techniques of origami art, creating animals, imaginative figures and much more.

#### Programming Courses

We offer different ways to enter the world of programming. We provide courses with the Arduino or the Calliope mini for smaller groups of students. Graphical programming languages allow an easy introduction and the young people can develop their first own app.

#### Build Your Own Soapbox Model

In this workshop, we construct soapbox models. After a short introduction, creativity is what is required. The aim is to let the model drive as far as possible from a ramp. A wide variety of materials is available for the young people to use.

### **AFTERNOON ACTIVITIES**

Our afternoon activities are another part of our range of offerings. With these, we give young people the opportunity to try something new outside of school. The goal is for them to discover new ways and have fun experimenting and trying out. Some examples of such afternoon offerings are:

### FIRST<sup>®</sup> LEGO<sup>®</sup> League AG

The FIRST® LEGO® League (FLL) is a research and robot competition in which the young people take part as a team in the categories Teamwork, Research Project, Robot Design and Robot Game. The last two categories require the construction and programming of a LEGO® robot. In the AG, or the school project group, the young people prepare for the FLL regional competition hosted by the ROSEN Group in Lingen (Ems).

### Movie AG

In this AG, or school project group, we produce our own films. We develop an idea, write the storyboard, design backdrops and costumes, and, after shooting, take care of the editing and sound of the recordings. This project includes the perfect task for everyone, no matter whether it is scripting, directing, camera, sound engineering, make-up and hair, stage design, or acting. Together, we want to create a great end result solely out of the young people's imagination and creativity.



### **COMPETITIONS AND INITIATIVES**

Besides our own range of offerings, we support initiatives that allow adolescents to pit their talents against each other. Dating back to 2005, our commitment in this area is continuously expanded.

# Jugend forscht – Schüler experimentieren (a student science competition)

We have promoted local competitions and their organizations for years. We provide required materials and help with design, testing and scientific documentation. In addition, we support anyone with a good idea by providing project assistance.

#### Management Information Game (MIG)

We regularly host the corporate planning game MIG at our ROYOUTH Center. Participants are specifically introduced to the varied and complex interactions between companies and the economy as a whole. In addition, we also act as external subject-matter specialists for the MIG.

#### **3malE School Competition**

This competition focuses on energy. We support teams of students who take part in this competition and wish to develop and submit creative projects on the topics of climate and environmental protection, efficient energy use, or ecological nutrition.

#### FIRST<sup>®</sup> LEGO<sup>®</sup> League

Through the construction and programming of LEGO® robots, this program introduces young people to science and technology. We support the regional competition, in which students are judged in four categories: Robot Design, Research Project, Teamwork and Robot Game.

#### Formula 1 in Schools

This technology competition is about racing a miniature racing car against other teams. ROYOUTH offers students support and the opportunity to draw and develop their racing car at the ROYOUTH Center. In addition, participants must prepare a team box, a portfolio and a presentation.

#### Lingens Ferienpassaktion (school break pass campaign)

We take part in the city's school break pass campaign and contribute various activities from our portfolio. During the summer and fall breaks, young people can take part in exciting days of experimentation and facility tours organized by us.

#### MINT Camp

The aim of this one-week workshop is to get students interested in mathematics, IT, natural sciences and technology (MINT). We support the University of Osnabrück and regional secondary schools in conducting workshops. Each workshop contains theoretical units and practical exercises.



### **VISITS RELATED TO SPECIFIC TOPICS**

It is often the best to gain an impression of something for yourself. We offer visits for each age group to permit an insight into a range of different topics. Our focus is on facilitating connections between theory and practice.

#### From the Idea to the Product

These tours provide interesting insights into many different departments of the ROSEN Group in Lingen (Ems). The adolescents learn how many employees and departments are involved in the creation and fabrication of a product (just from the idea to the product).

#### Topic: 3D CAD

3D design is the subject of elective courses in some secondary schools. A special tour of the ROSEN Group's design department, CNC machining, manufacturing and 3D printing lab grants practical insights.

#### Focus on Research and Development

The ROSEN Group in Lingen (Ems) has a large research and development department. The adolescents carefully observe the development process and learn about the diversity of the scientific and engineering professions. Furthermore, they experience the differences between research and development.

# SUPERVISION OF TERM PAPERS

We support young authors of secondary-school research papers dealing with subject-specific issues. Members of our team are available to serve as contact persons and arrange contacts with the experts of the respective specialist departments.

# SPECIALIST LECTURES

As subject-matter specialists, we will gladly pass on our expertise to those who wish to receive it. Topics such as Research and Development, Company Organization and Objectives, The Impact of New Technologies, IT Security and Inspection and Diagnosis of Industrial Systems are only a small selection of our range of topics, which we will gladly expand in accordance with requests. In addition, we will gladly serve as moderators

in the idea-finding phase of students' own projects.

# HOLIDAY CARE

During school holidays in the state of Lower Saxony, we offer holiday care at the ROYOUTH Center from 8 am to 4 pm. Young people from the 5th grade and higher can take advantage of exciting holiday offerings here. We offer a varied range of activities: crafting, experimenting, working and discovering new things. We are also happy to accommodate the youngsters' wishes.



# **OUR INNER COMPASS**

### WHAT YOU CAN RELY ON

#### Safety is more important than experimental fun.

With us, the adolescents can try out things for themselves without anyone being harmed during our experiments. Therefore, we pay great attention to compliance with safety regulations.

#### We abide by ethics and moral standards.

Our range of offerings excludes morally questionable topics. That means no animal testing, weapons etc.

#### We do not try to form opinions.

We have an opinion. However, this does not mean that we are obsessed with convincing others of it.

#### Data protection is a precious asset for us.

We treat personal data carefully, because we know how sensitive it is.

#### **ROYOUTH provides a non-profit range of offerings.**

We do not have any financial interests. If an idea worthy of protection arises, it belongs to its "inventor."

#### Our offerings are accompanied by trained educators.

Educational specialists, whose exclusive responsibility is their work at ROYOUTH, support the development of our offerings and are pedagogically responsible for their implementation.

#### We are committed to youth protection.

We pay great attention to compliance with youth protection laws during our activities, for example when it comes to media, content and substances that are harmful to youth.

#### We stand for mutual respect.

A stay at ROYOUTH is characterized by mutual appreciation and respect for different people. This includes our commitment to inclusion.

### WHAT DRIVES US

When creative thinking and new ideas are combined, unique skills arise. They are the foundation for the further development of our corporation, which makes education one of our paramount tasks. In this context, education must not be understood as teaching in schools but as a chance to try things out for yourself and discover your talents in the process.

By supporting young talents, we offer them guidance for their successful, individual path. To that end, we develop varied programs, which we design and implement ourselves. The quality of our activities is very important to us, and that is why we regularly and continuously update our concepts with the help of our educational specialists.



# THE ROYOUTH CENTER

Our ROYOUTH Center provides everything required for crafting and building, programming, presenting and discussing across more than 400 square meters. We have well-equipped rooms and space for more than 40 young talents to work simultaneously.

The group workspaces, subdivided as project rooms, facilitate quick and uncomplicated communications and a good overview. Furthermore, the ROYOUTH Center is equipped with mobile internet access, printers and visual aids. It borders on the premises of the ROSEN Group in Lingen (Ems).

The building reflects our conceptual approach: Six different-sized rooms make it possible to work in parallel or together on different tasks, either as a whole school class or in smaller groups. The ROYOUTH Center also houses an IT training room and a large conference room for presentations. The ROYOUTH Center is exclusively reserved for nurturing young talents. We can utilize our rooms flexibly depending on the project. As a result, we have the option of serving as a "base camp" for longer-term competition participants.

With the location of the ROYOUTH Center next to the bilingual child daycare center ROKIDS and the bilingual grade school ROBIGS, we ensure optimal cooperation of the three units. We support young people from grade 5 upwards in the ROYOUTH Center, which is open for many projects and which the students are free to use as they desire.



# OUR SPONSOR

ROSEN is a leading privately owned company that was established as a one-man business in 1981. Over the last years ROSEN has grown rapidly and is today a worldwide technology group that operates in more than 120 countries with over 3300 employees.

The key to the highly innovation driven approach is listening carefully to the specific needs and challenges of the customers. "Empowered by technology" is the promise that ROSEN systematically delivers by enhancing the operations of the customers and making them safe, cost-effective and more efficient.

ROSEN is a worldwide provider of cutting-edge solutions in all areas of the integrity process chain suiting a wide range of industries: Oil and Gas, Energy, Process, Mining, Manufacturing, Telecommunications and Transportation. ROSEN takes care of the safety of a wide range of assets, including pipelines, tanks and vessels as well as wind turbines, trains, telecommunication towers and much more.

ROSEN employees have a passion for technology and innovation. The claim "empowered by technology" is the key to outstanding und unique products and services. ROSEN represents top technology for the protection of people and the environment. Thereby, we are not only a top leader in this region, but also worldwide.

### HOW WAS THE "ROYOUTH" INITIATIVE BORN?

Our sponsor, the ROSEN Group headquartered in Lingen (Ems), has been committed to sponsorship programs and activity days for the support of young researchers for more than 25 years. Since the beginning of 2016, these activities have been merged into the independent, non-profit "ROYOUTH" initiative in order to support adolescents in discovering and developing their individual interests, irrespective of gender, origin, nationality or type of school.

# WE DISCOVER NEW TALENTS TOGETHER WE LOOK FORWARD TO CREATIVELY COOPERATING

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#### **GEO** Coordinates

52°29'09.6"N 7°19'54.6"E (GMS) 52.486 7.333 (WKS 84)



The three strong brands ROKIDS (bilingual child daycare center), ROBIGS (bilingual grade school) and ROYOUTH (initiative for youth) are part of ROCARE GmbH. The ROSEN Group Lingen (Ems) serves as the sponsor and board.

Interested in supporting us? For options, please visit our website.

Find additional information about ROYOUTH on the Internet: www.royouth.de (German) www.royouth.net (English)





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