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DB Group | Company Profile



**WE BELIEVE IN A
COMMON FUTURE.**



40TH
ANNIVERSARY
1975-2015

We believe that the first step to reach a wealthy, democratic world is to support the communication between people, the sharing of information, and to push the boundaries of knowledge at the service of humanity. This is what we do every day: we provide our customers the means to do it, the best Radio, TV and Science solutions, products, systems and services.

We believe in a Common Future because since 1975 we have been living in a better, more democratic and more advanced world, thanks also to our support to information, communication and scientific research.



Who we are

DB is a corporate group working in broadcasting and scientific applications. The leading company in the group is DB Elettronica Telecomunicazioni S.p.A, founded in Italy in 1975. With more than 40 years of experience and a coherent strategy, DB Elettronica nowadays is a world leader in communication products, systems, and services for Government and Private Customers and in advanced scientific applications.

DB Group offers world-class solutions in turnkey systems, from Studio to Antennas and RF power amplifiers where investments in design, new technologies, and customized solutions are a critical factor to success.

With headquarters located in Padua, Northern Italy, offices in Rome, Bologna, Miami, New Delhi and many worldwide sales and service locations, DB Group assures immediate delivery of products, systems and instant service on every continent.

What we do

DB Group provides products, systems and services, with activities in the following interlocking domains:

- ▶ Broadcast Communications
- ▶ RF Communications
- ▶ Microwave Communications
- ▶ Radio and TV studios
- ▶ Scientific applications

We received important awards for our Solid State Amplification and its revolutionary Cold-Fet™ technology and we have developed a new HI-ADC™ technology to improve the TV transmitters, reaching high quality signal both in analog and in digital transmissions.

Moreover, we proudly contribute to the scientific projects of the most advanced research organizations such as CERN (Switzerland), GSI (Germany), INFN (Italy), Institut de Physique Nucléaire d'Orsay (France), LPSC (France), Sincrotrone Trieste (Italy), Inter-University Accelerator Centre (India).

Why we do it

We believe that the first step to get a wealthy, democratic world is to support the communication between people, to empower the scientific research and foster the sharing of information. This is what we strive for every day: supplying our customers with the best means to do it.

Mission & Vision

Our mission is to provide the best solutions and the most advanced instruments to our customers, satisfying all their specific needs and empowering them to succeed; and in so doing to contribute to make the world a better place.

Our Difference

Specialization is the password to get a broad range of perfect solutions. Integration is the step forward to make the solutions perfect

In the broadcasting sector it is a critical success factor to select the solution that perfectly fits your business model, guaranteeing the most advanced technology to put you ahead of your competitors. Consequently, your partners should be specialized in their target domain. DB Group offers you specialized partners in broadcasting industry, in a perfectly integrated form.

Pursuing grand interdisciplinary scientific and technological challenges means having the specific, cutting edge solution every time, wherever you need it. This makes the difference, and this is the only way to succeed.

DB Group Divisions

DB Group is composed of multiple divisions, specialized in providing the most advanced solutions in its own field, focusing on its own core business. The exchange and the collaborations between them provide unique benefits for the clients - deep specialization along with broad and multiple solutions.

Broadcasting Industry



DB Digital Broadcast is specialized in solid state technologies for analog and digital FM Radio and Television, analog and digital microwave links, remote control and management systems, antennas and accessories.

DB can offer to its customers Radio and TV Transmitters, Antennas with coverage analysis, Turnkey Solutions, Feasibility Studies, Commissioning and Training services (in our factory and on-site), complete after sales support.

EBS is specialized in customized high technology broadcasting solutions and in very high power solid state amplifiers (air or liquid cooled) and IOT tubes applications.

DB Studio is specialized in design and installation of analog and digital Radio&TV studios, with long experience in complete broadcast solutions integration. For this activity DB relies on its business partner D&M Broadcast, part of DB Group.

Scientific Applications Industry



DB SCIENCE produces RF amplifiers, RF generators and other microwave equipment for research institutes, particle physics, nuclear engineering and medical therapy.


Radio & TV Broadcasting Equipment

40 years of experience

 +160 Countries

 + 50,000 Radio & TV Projects

 + 20,000 Transmitters Installed

 Millions of People Connected

One size doesn't fit all

DB Group offers unique benefits for our partners: providing the best solutions, products, systems and services that fit their needs and desires. Every Group Division aims to go deep in its own core competences knowing that the other partners are doing the same, multiplying the end benefit. The final goal that guides us is: to provide the best specific solution to our customers.

Every project is unique and every customer is unique: that's why one size doesn't fit all, and that's why we strive to offer unique solutions for unique projects.



Radio products and solutions

FM transmitters: DB Digital Broadcast is leader in FM digital and analog products. For more than 40 years of experience, we design our products to offer you the maximum AC efficiency and the best audio quality.

The GREEN RF™ technology, the latest evolution of the world famous DB patented COLD-FET™ technology, is obtained using the latest generation LD-MOS 65:1 devices to increase DC to RF efficiency up to 85%, with a drastic reduction of energy consumption. Overall AC to RF efficiency is over 70%.

PFG and Mozart Series, the new line of FM transmitters and exciters, have been awarded some of the industry's most prestigious technology honors, the Best of Show Award at both the NAB Show in Las Vegas and the IBC exhibition in Amsterdam.

DB Elettronica produces also analog **STL** with very low noise and high quality audio performances to assure the best signal distributed to the FM transmitters.

Very high efficiency, superior ruggedness, low maintenance costs, compact design with reduced weight, complete web control are only some of the main features of our FM products.

Radio studio turnkey solutions

DB can offer its customers turnkey solutions up to room and acoustic treatment design and installation, training at our facilities or on-site, coverage prediction and pre/after sales support. The assistance is provided by a team of professionals divided into various departments, each one with specific technical knowledge: **this allows fast and specific solutions.**

Complete design, supply and installation of:

- ▶ Analog and Digital Production Studios
- ▶ Audio management and automation systems
- ▶ Networked audio solutions
- ▶ Pre-wired studio solutions
- ▶ STL for the connection Studio - Transmission site
- ▶ Broadcasting Transmitter
- ▶ AC Mains surge or lightning protection
- ▶ Antenna System

Television products and solutions

DB Digital Broadcast offers its customers a wide range of TV solutions:

- ▶ Digital TV transmitters
- ▶ Dual cast TV transmitters
- ▶ Analog TV transmitters
- ▶ SD and HD TV links

Our 40 years expertise along with our deep specialization enables us to offer very high performances products, fully compatible with all analog and digital TV international standards.

- ▶ ANALOG TELEVISION: PAL, NTSC, SECAM
- ▶ DIGITAL TELEVISION:



TV studio turnkey solutions, OB and ENG vans

DB can offer its customers turnkey solutions up to room and acoustic treatment design and installation, training at our facilities or on-site, coverage prediction and pre/after sales support. The assistance is provided by a team of professionals divided into various departments, each one with specific technical knowledge: this allows fast and specific solutions.

Complete design, supply and installation of:

- ▶ Analog and Digital Television Studios
- ▶ Post-production facilities
- ▶ Stage lightning and sound systems
- ▶ Theatre staging units
- ▶ OB and ENG Vans
- ▶ TV link for the connection Studio - Transmission site
- ▶ Broadcasting Transmitter
- ▶ AC Mains surge or lightning protection
- ▶ Antenna System

Scientific Applications Equipment

10 years of experience
+ 2.000 kW Installed

Scientific Applications

DB Science produces RF amplifiers, RF generators and other microwave equipment suitable for research institutes, particle physics, nuclear engineering and medical therapy.

Thanks to the scientific progress, today we can defeat diseases that were a plague for humanity.

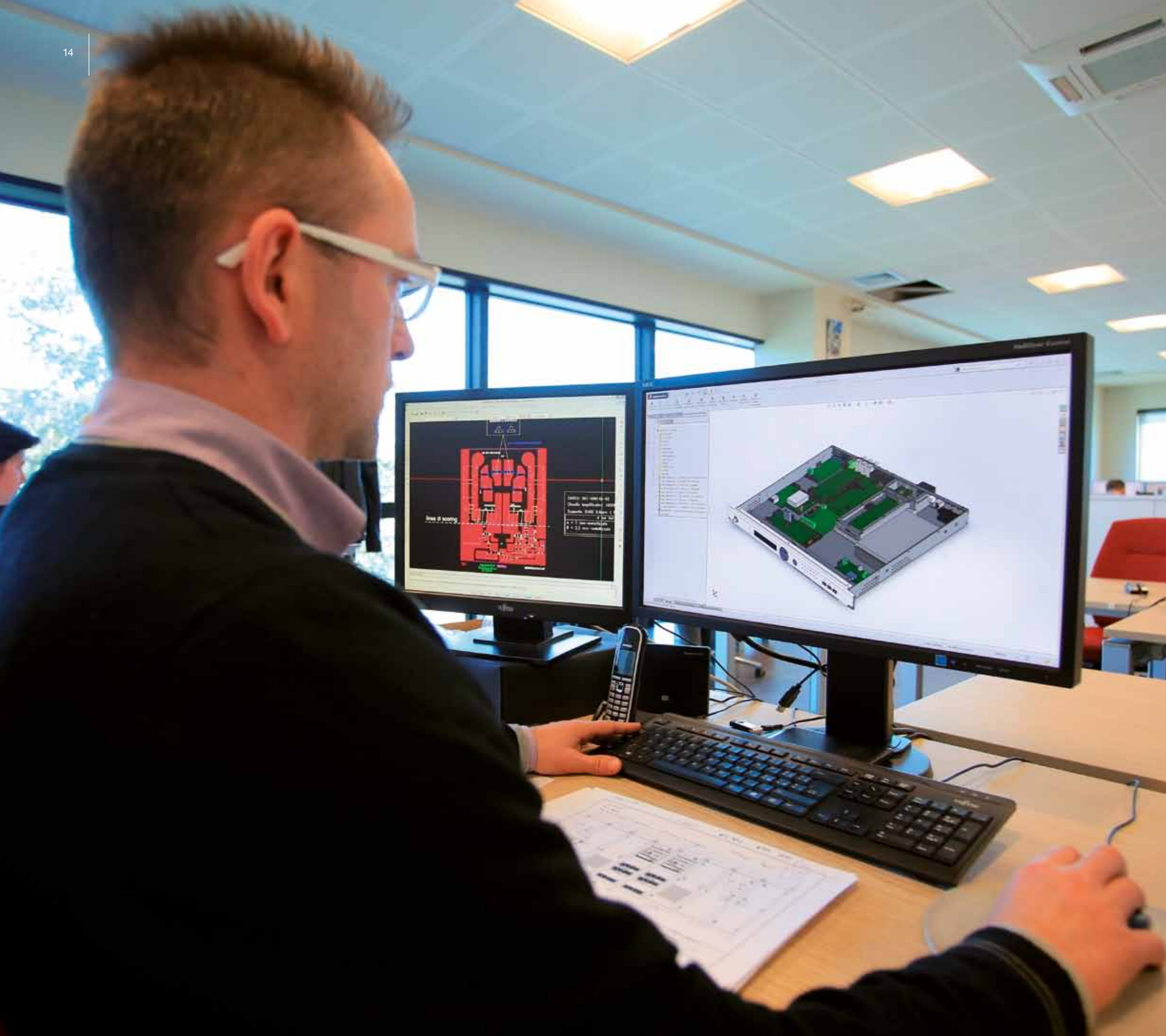
The main characteristics of RF amplifiers and generators made by DB Science are:

- ▶ Power up to 500 kW cw or pulsed
- ▶ Solid state or tube technology
- ▶ Air, liquid cooling
- ▶ EPICS compatible

We are proud to give our commitment to those medical applications that contribute to the treatment of serious diseases and cancer.

We have realized equipment for the most important scientific projects: LINAC4 (CERN), SPIRAL 2 (Ganil).

Moreover, we have realized equipment for the most innovative European project, European Spallation Source (ESS) in Lund, Sweden, committed to constructing and operating the world's leading facility for research using neutrons. Designed to generate neutron beams for science, ESS will benefit a broad range of research, from life science to engineering materials, from heritage conservation to magnetism.



Quality is more than a concept

For DB, quality is more than a concept: the company has been awarded the ISO 9001:2008 standard certification demonstrating our dedication to continuous improvement and superior performance in all aspects of our business.

Each department pursues the highest quality to guarantee top level performances and reliability, always respecting all international standards for electromagnetic compatibility and safety:

- ▶ The quality of our products is compliant with the main International Standards
- ▶ All DB's products are European standard compliant for Electromagnetic Compatibility and Safety
- ▶ The Radio and Television equipment produced by DB Broadcast division are compliant with the Directive articles 1999/5/EC of European Parliament on Radio and Telecommunication Terminal Equipment (R&TTE Conformance)
- ▶ Most of our products are also FCC certified



Research & Development

Designing equipment with excellent performance, both for broadcasting and scientific application, is a challenge we face every day since 1975.

We firmly believe innovation to be a powerful instrument to overcome the challenges of the broadcasting industry and scientific research: we grant the best solutions and configurations of the customized equipment with a positive can-do attitude. And our best result is that our products are successfully installed in more than 160 countries in the world.

DB's internal Research & Development department is able to design complete systems and provide customers with all the necessary assistance from the definition of the project, choice of equipment with accurate technical specifications up to installation and after-sales service.



Efficiency & Technology

We live in a very complex world and we are aware that there are great differences in the access to services. In some parts of the world listening to the radio or watching television means attending classes from home because of epidemics, diseases or wars: in others listening to the radio or watching television means keeping informed on what is going on around, being conscious, saving lives, getting involved, taking part... Contributing to make the world a better place.

In the medical field, the stakes are higher and the ambitions more challenging and we are proud to give our commitment to those medical applications that contribute to the treatment of serious diseases and cancer.

That's why we work hard to create reliable, rugged, technologically advanced and highly efficient solutions. We design green products, increasing the AC efficiency up to more than 70% for FM and more than 40% for TV, to give each customer, wherever he may be in the world, the opportunity to be connected and communicate with a continuously operating service with lower consumption and costs.



Service

On-line service

Every day our Technical Departments in Padua, Bologna, Rome, Miami, New Delhi and other locations reply to dozens of on-line enquiries, compelling customer technicians to find the right solutions, thus saving time and money.

Factory service

An internal factory service with immediate spare parts shipment is available with stock and shipping directly from Padua, Bologna, Rome, Miami, New Delhi and other locations.

On-site service

DB Team of technicians are ready to fly all over the world to offer feasibility studies, technical services, training, supervision and installation on each domain of the Group: Radio & Television Transmitters, Radio & Television Studios, Antenna Systems, Microwave Links.

Installation process

DB has a highly specialized staff to help the customer with the installations of:

- ▶ Radio and TV complete transmission systems
- ▶ Antenna systems
- ▶ Microwave links
- ▶ Amplifiers, excitors, etc.
- ▶ Radio and TV studios
- ▶ Scientific Equipment



Factory and On-site Training

In order to build a reliable and efficient operation, investing only in the most advanced industry equipment is not enough. It is also necessary to secure the knowledge to operate and maintain your equipment for long service and performances. That's why DB Group can offer two cost-effective training opportunities:



Factory Training

Standard training or programs customized for your needs at our facilities.

On-site Training

Customized programs conducted by our RF or Studio Engineers on your site.



Padua



Bologna



Rome



Miami



New Delhi



Where we are

Padua, Bologna, Rome, Miami, New Delhi.

Headquarters in Padua, Northern Italy.

The vision of the Broadcast and Communications future is driven by the needs and aspirations of thousands of customers who use DB products every day in more than 160 countries.

More than 85% of DB's production is sold overseas. With three division headquarters located in Northern Italy, facilities in Padua, Bologna, Rome, Miami, New Delhi and many worldwide sales and services locations, DB assures immediate delivery of products, systems, spare parts and instant service on every continent.

Broadcasting Industry References

Some of our solutions
everywhere in the world

- ▶ STAR FM, Zimbabwe
- ▶ MY FM, India
- ▶ All India Radio, India
- ▶ Radio Mirchi, India
- ▶ ORTN, Niger
- ▶ TV3, Malaysia
- ▶ TeleSUR, America Latina
- ▶ VIVA TV&FM, Madagascar
- ▶ NURTS, Bulgaria
- ▶ TDF, Francia
- ▶ RTS, Senegal
- ▶ BBS, Buthan
- ▶ Albavisión, America Latina
- ▶ EM TV, Papua Nuova Guinea
- ▶ ZIFM, Zimbabwe
- ▶ SRBC, Pakistan
- ▶ RTI, Ivory Coast
- ▶ RaiWay, Italy
- ▶ A-FM, Tanzania
- ▶ RTNB, Burundi



Scientific Applications Industry References

Some of our high customized solutions

- ▶ CERN (Switzerland - France)
- ▶ LPSC (France)
- ▶ Ganil (France)
- ▶ Institut de Physique Nucléaire d'Orsay (France)
- ▶ INFN (Italy)
- ▶ Sincrotrone Trieste (Italy)
- ▶ Uppsala University, (Sweden)
- ▶ Imperial College London, (UK)
- ▶ Goethe Universität (Germany)
- ▶ GSI (Germany)
- ▶ Inter-University Accelerator Centre (India)
- ▶ MedAustron (Austria)
- ▶ Universidad de Huelva (Spain)



MEDAUSTRON

- 5 x 10kW Amplifiers Solid State Driver 1.5 MW, 256 MHz
- 15 x 1kW Cavity Amplifiers Solid State 10 kHz, 30 MHz

CERN – LINAC 4 INSTALLATION

- Debuncher: 50 + 50 kW Amplifiers solid state 352 MHz
- Buncher: 3 x 35 kW Amplifiers solid state 352 MHz

UPPSALA ESS

- 400 kW, Amplifiers for FREIES

GANIL – ACCELERATOR FOR SPIRAL2 PROJECT

- Installation RFQ Quadrupole
- System 4 x 70 kW
- Amplifiers solid state tube



To work with DB means:
The Best Broadcasting and Scientific
Solutions for a Better World



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