



**E★U★R★E★L**

Convention of National Associations of Electrical Engineers of Europe

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# Welcome Words



**Carlos Almeida Loureiro**

EUREL President 2021/22  
President of the Jurisdictional  
Council of Ordem dos  
Engenheiros  
Lisbon, September 2022

On 29 September 2022, we will be celebrating the 50th anniversary of EUREL in Lisbon. In addition to remembering and highlighting the successes achieved, we will mainly get additional motivation to face the new and important challenges associated with the disruptive environment world is experiencing.

This surrounding context of our meeting in Lisbon is very clear in the texts included in this document “50th anniversary of EUREL”, jointly authored by former EUREL President Hans Heinz Zimmer and by the actual Chairman of Board of Directors Markus J. Jaeger.

On behalf of EUREL, I congratulate both authors and express our thanks for this excellent contribution to our association.

I also stress the key issues involved in the future they envisage and which will be present in EUREL's activities (Technological Sovereignty, Climate Protection, Resilience, Trusted Identity and Shortage of Specialized Personnel).

In Lisbon, we will start a new and very demanding period in which the contributions of EUREL and its members will assume greater importance in promoting the profession and its attractiveness and in stimulating Young Engineers.

And also, interacting with National and European authorities and with our stakeholders in the definition of policies and strategies to respond to the challenges of Sustainable Development and Globalization in geopolitical and economic contexts in permanent evolution.

I register here my conviction that EUREL, with a territorial scope progressively extended to all European countries, will pursue its mission with consistency and quality.



**Ferdinand Gubina**

EUREL President 2022/23  
Ljubljana, September 2022

The pressure of environment protection poses enormous problems to the electrical engineers, and members of EUREL have an opportunity to help solving them.

Electricity is a vital part of our life and it is mostly desired as the basic source of energy in view of the environment protection.

The main goal of EUREL is to gather the organizations of electrical engineers to improve all aspects of use of electricity in daily life of our society. That concerns use of electricity as energy source in information and telecommunication, health, industry use and many others.

The scope of our goal is to improve quality of its use by developing proper regulations and directing our society in commonly accepted solutions of its deployment. Together – united in EUREL – we have more strength and better chances to achieve those objectives.



# Foreword

On the occasion of EUREL's 50th anniversary the development of the association as well as the present and future orientation will be pointed out.



**Hans Heinz Zimmer**

EUREL President 2019/20  
Former CEO  
VDE Technology Organisation  
Offenbach, September 2022

The reasons for a European umbrella organisation are as relevant today as they were in 1972. On the one hand technology knows no borders and on the other hand a cooperation at technical, economic and political level is indispensable. To survive in global competition and meet the challenges in the areas of energy, communication, environment, security etc. the European countries on their own are too small to master the challenges. From a socio-political point of view cohesion in Europe in all areas is the basis for peace. This is especially true in the current situation in 2022.

Over the course of its 50 years EUREL had different focusses and fluctuations in the number of activities. The 90's were particularly present and active. For the future there are again good prospects not only to set an example in the activities for young engineers and students, but also to generate content offers with corresponding added value for the members of the individual associations. In the last two years, a lot of new formats have been installed. This increases visibility in Brussels and emphasizes the role as spokesman for electrical and information technology.

When reviewing the EUREL archive and other sources it unfortunately turned out that there are just a few documents available between 1972 and 1990, except the foundation meeting in 1972. Therefore, the information about this time is very incomplete.

Since the revision of the statutes in 2019 the name of EUREL has been changed in "Convention of National **Associations** of Electrical Engineers in Europe" because of Belgian law. The EUREL members call themselves either society or association. For that reason both expressions are used equivalent. Some of the founding members have now changed their name or no longer exist. The following used names correspond usually to the time considered. **When talking about electrical engineering the entire field of energy technology, information technology, measurement and control technology and microelectronics as well as their applications are meant.** At the time of founding EUREL electrical engineering was the common umbrella term, today rather electrical and information technology. Likewise, individual disciplines such as mechatronics, media technology, software engineering or biomedical technology are increasingly used independently.

The structure of the EUREL Member Societies varies greatly in range of offers and economic size. Within some EUREL-members the society part for engineers is extended for electrical safety and usability by the responsibility for standardization and/or testing of devices and systems. Publishing activities or professional seminars and conferences can also be included. The budget size and full-time resources vary accordingly. Some associations are responsible for engineers of all disciplines. Others have only an area for Electrical engineers. This also led to resignations, because decisions were made within such associations to be represented also on European level in an umbrella organization for all engineers, for example at FEANI.

We would like to thank everyone who supported us in reappraising the history of EUREL. I would like to thank especially Mr Dünner from SEV (today: Electrosuisse) who made a great contribution at an old age as a contemporary witness to the founding assembly. Unfortunately, he passed away this spring. Also I would like to thank Mr. Jaeger from VDE for the presentation of the present and future orientation of EUREL and the implementation of the commemorative publication. Thanks also to Mr Reichel from OVE for his suggestions.

# 50 Years of EUREL: Let's work on the future – together

In 2022, EUREL the Convention of National Associations of Electrical Engineers of Europe will be 50 years old. That is a very good reason to celebrate. It is also a worthy reason for a special commemorative publication that takes a look at EUREL's 50-year history.



**Markus B. Jaeger**

EUREL Chairman Board  
of Directors

Global Head of Political Affairs  
VDE Technology Organisation

Berlin/Brussels September 2022

At this point I would like to expressly thank Dr Hans Heinz Zimmer, the former long-standing Chairman of the Board of the German VDE (Association for Electrical, Electronic and Information Technologies) and on top former President of EUREL, who took the initiative for this commemorative publication.

## Learning from the past

Certainly, important lessons can be learned from the past. Definitely! After all, we want to do things better in the present and at least in the future. This is why I personally prefer to look to the future: Because we can all actively contribute to the future – today and now. Europe, the entire world and the current and upcoming generations of humans are facing significant energy, climate and security policy challenges. Electrical, electronic and information technology engineers can and must make an important contribution to stability in Europe and the world with their know-how. EUREL sees itself as the strong voice of European electrical, electronic and information technology engineers.

## Challenges in the Future

So what are the challenges for electrical, electronic and information technology engineers in the future? Everywhere in greater Europe people are talking about the digital and green transformation. Some see this as a turning point. Nothing will remain as it once was. There are countless wishes and hopes for what the future should look like. Now it is a matter of formulating concrete goals, describing the way to get there and then also starting consistently. We all need a master plan for the future. In today's world, we are experiencing a serious change compared to time of the Industrial

Revolution. Digitalisation does not stop at any area. Digitisation is the decisive factor that brings many different faculties of engineers to the same table.

The change is huge and is taking place at maximum speed and simultaneity: the transformation of energy and mobility systems, remote medicine, the "All Electric Society", artificial intelligence, quantum technologies and much more. We don't even know where to start and where to stop.

The crucial question is how Europe is prepared for all these developments. The European Union and all its member nations must strengthen their resilience in all areas. Putin's war against Ukraine is also an attack against European freedom. Beyond military aspects, we in the greater EU must be able to defend against cyberattacks and disinformation campaigns, as well as attacks on critical infrastructure and communication channels. The key term is technical resilience.

## Strengthen the resilience of our countries and societies

What do the states in greater Europe and, above all, what do the engineers of electrical engineering, electronics and information technology have to do to strengthen the resilience of our countries and societies? How do we make ourselves less dependent on supplies from Russia and China for example? These are the questions that need to be answered.

## EUREL: Focus on two objectives

EUREL establishes the framework for stability in Europe. The first is to connect electrical, electronic and information technology engineers from young to old across Europe and beyond. EUREL facilitates an inspiring exchange and contributes specifically to sharing important approaches to solutions. Furthermore, we provide knowhow and knowledge. The focus is especially on politics and authorities in

Brussels. The expertise of the EUREL network can also be used in the member countries. We want to contribute to ensuring that political decisions are based on the latest facts and findings and that important technological topics receive the appropriate attention in politics and society.

### Facing challenges that need to be solved across borders

A technologically united greater Europe is an absolute necessity. Only together we can master key issues such as:

- A. Technological Sovereignty:** From microchips to e-mobility to AI. Europe is facing extremely fierce competition. Beijing, for example, set their goal of technological world leadership years ago.
- B. Climate Protection:** We need more innovations for this common task. Europe's diversity – see the special expertise in hydropower in Northern Europe, solar technology on the Mediterranean and hydrogen in the heart of the continent – holds enormous potential.
- C. Resilience:** More urgently than ever, Europe needs to strengthen its resilience, especially in the CRITIS sectors. Functioning power and communication networks, sufficient energy and secure supply chains must be ensured.
- D. Cyber Security:** Parliaments, public authorities and businesses are increasingly under attack. Cross-border alerts, common security strategies and shared security awareness in projects such as GAIA-X need to be organised.
- E. Trusted Identity:** Bots in the internet – whose photos, videos and conversations are deceptively real – are increasingly being used for manipulation. This creates a massive danger for democratic decision-making. Authentic pseudonyms, which are being established throughout Europe, offer a way out.
- F. Shortage of Specialised Personnel:** There is a shortage of engineers in electrical engineering, electronics and information technology all over Europe. Professional associations, universities and education policy must finally find answers in cooperation instead of thinking in terms of national borders.

### Europe must become technologically sovereign

In the short term, the energy and communication sectors must each strengthen their resilience. Social bots are increasingly being used on the internet to manipulate society. To protect the democratic process of opinion-forming, authentic pseudonyms show the way. States in Europe urgently need to further develop their cybersecurity strategies. This also applies to increasingly digitised power grids. But – we do not need to talk about Technological Sovereignty, Resilient Power and Communication Networks, Trusted Information, Cybersecurity and Future Scenarios in Europe if we lack well-trained engineers in electrical engineering, electronics and information technology. We as EUREL are challenged to advance technological solutions for the benefit of the people and to support our democratically elected politicians – all across Europe.

### Fighting the shortage of engineers in electrical engineering, electronics and information technology all over Europe

There is a shortage of engineers in electrical engineering, electronics and information technology all over Europe. Professional associations, universities and education policy must finally find answers in cooperation instead of thinking in terms of national borders. EUREL only plays a small role here, but we are facing up to our responsibility. We accept the challenge.

Students and young engineers in electrical engineering, electronics and information technology in the EUREL Young Engineers Panel (YEP) have the chance to solve the future tasks. EUREL specifically since nearly 20 years addresses the next generation of European engineers with the International Management Cup. Up to 200 young people can take part in the annual management game. Second example is the annual EUREL Young Engineers Seminar which takes place in Brussels: young students and professionals visit Brussels for three days, get insights into the political processes, visit the EU Parliament and meet top representatives of the institutions. The annual EUREL Field Trip offers students and young engineers from EUREL's member associations the opportunity to get to know the different member countries of EUREL.

## High impact, efficient structures

For EUREL and its leaders, one principle is absolutely clear: we want to achieve the highest possible impact with the fewest possible resources. For our members, our contacts in politics and authorities, and for Europe as the world's leading location for electrical engineering, electronics and information technology. EUREL is based on the commitment and cooperation of its members. EUREL has been on the ground in Brussels for years and is in contact with top politicians, authorities and the media. We support members in establishing contacts in Brussels. We offer structures to exchange with more than 80,000 engineers in the fields of electrical engineering, electronics and information technology in Europe and Israel. Whenever conferences are planned, members invite each other. No other organisation can offer anything comparable. Friends are meeting friends. On top EUREL regularly publishes studies and positions that have been approved in advance through an efficient circulation procedure. These are usually based on papers that a EUREL member organisation has already produced at national level. Duplication of work is thus avoided. We are all working on these activities together in the EUREL family. So that EUREL will continue to play an important role in Europe in the decades to come.

**Bottomline: only together we are able to master the challenges of the present and the future.**

## Russian War in Europe – EUREL fulfils its social responsibility

Since 24 February 2022, when Russia invaded Ukraine, it is war in Europe. In this context, EUREL has published a clear message towards Russia and engineers in electrical engineering, electronics and information technology in Russia.

EUREL community of electrical and electronics engineers wishes to pay tribute to all engineers in the world who, in Ukraine and other countries hit by war, often with the sacrifice of life, health or freedom, make available their skills and opinions defending the values of Peace and minimizing human, social and economic war impacts. We are facing challenging times for mankind due to climate change and now with the war

in Ukraine, whose impact is global and not limited to Europe. In EUREL, we believe that engineers are there to help people.

Just as it is the professional honour of doctors to heal people, it is the job of engineers to make life more comfortable and easier for people. Engineers want to advance mankind technologically. But not in any way or by any means.

This is why we, the engineers of EUREL, call to every engineer in the world, engineer to engineer: please raise your voice and help to put an end to Putin's insane actions in Ukraine which kills innocent people.

Natural laws, which are part of engineers work, know no borders, no nationalities, no skin colours. The laws of nature do not know war. Electrical and electronics engineers have an important mission to fulfil in the modern world, in which no aggression is allowed, and the borders of states should not matter! The climate of our planet changes. The air and water are contaminated. We have to save them on a global scale. We must save every human life. We cannot destroy life, environment and achievements of humanity with wars and barbaric explosions. Everyone should be able to live in peace and cultivate individual culture.

EUREL does not care about boundaries. Borders cannot stop us. Nationalities do not matter to us. We are multinational and cosmopolitan. We can only tackle the challenges of the present and the future together. It would give me great pleasure, and that is my wish for EUREL 50th Birthday, if we could find ways to work together on our common future.

# Foundation of EUREL

EUREL, founded 1972 in Switzerland, is a non-profit European umbrella organization whose members are Electrotechnical Associations of European countries. The aim of EUREL is to represent the technical-scientific interests of the electrical engineers of the individual member associations and to clarify the important role of electrical engineering and information technology for the progress of people vis-a-vis politics and public. As an umbrella association EUREL has no personal members.



Foundation Meeting Welcome by R. Richard

At the time of its foundation there were already several European Umbrella Associations for engineers and electrotechnical topics. Examples are FEANI (European Federation of National Engineering Associations), which focusses on Professional interests of engineers and the fundamental importance of engineers for the society, Orgalim (Europe's Technology Industries) or UNIPEDE (International Union of Producers and Distributors of Electrical

Energy). The IEEE with its Region 8 represented some topics of electrical engineering on the scientific side in Europe.

## SEV as enabler

The initiative to found EUREL came from the two large associations VDE (Germany) and IEE (England) as well as from SEV (Switzerland). This is proven, among other things, by the running of a EUREL secretariat until the end of 1972 by Mr. Dünner of the SEV. The preparatory work to establish EUREL, including the preparation of the statutes and a program, was carried out by a liaison committee with representatives of 11 Electrotechnical Associations of Western Europe. The liaison committee had its first meeting in Lausanne in mid-1972. Before this meeting, there were already initial discussions at the EUROCON Conference in Lausanne, in which representatives of Region 8 of the IEEE also participated.

## Inauguration in Zurich

The founding meeting of EUREL as Convention of National Societies of Electrical Engineers in Europe took place on 24 November 1972 in Zurich. In the historic "Zunftthaus zur Zimmerleuten" met representatives of 18 national Electrotechnical Societies from 15 countries of Western Europe. 15 of these societies joined to the convention during the meeting (see table 1). The foundation fulfilled the desire for closer international cooperation and the exchange of experience among engineers. The aim with EUREL was to create an organisation that brings people together. Until then, more bilateral contacts should result to pan-European cooperation.

The welcome was made by the president of the SEV, Mr Richard. He pointed out that the individual Electrotechnical Societies already have a great tradition, many of them going back up to the 19th century. In the first decades they focussed on the exchange of experience of engineers in their respective countries. In recent decades the rapid development of electrical engineering had forced the international cooperation of scientific experts. In this respect, cooperation at European level follows a logical consequence. A sentence in Mr. Richards speech is remarkable: "From different sides, a certain indifference of young engineers towards the associations was noted." This finding older engineers can be heard in a similar form in every generation of engineers, especially today due to declining membership numbers due to new networking opportunities.

Speeches continued to be given by Prof. Coales (IEE) and Dr. Roggendorf (VDE). Coales emphasized as a great success that almost all Western European Electrotechnical Associations will be represented in the federation. At European level and thus also in



## EUREL Members

Austria	<b>OeVE</b> Union Autrichienne d'Electrotechnique
Belgium	<b>AJM</b> Association des Ingenieur de Montefiore
Belgium	<b>SRBE</b> Society Royale Belge des Electriciens
Denmark	Association des Ingenieurs du Danemark
France	<b>SEE</b> Societe des Electriciens, Electroniciens et des Radioélectricien
Germany	<b>VDE</b> Union des Electrotechniciens Allemands
Great Britain	<b>IEE</b> Institution des Ingenieur Electriciens de Grand-Britagne
Great Britain	Ingenieurs radioelectriciens electroniciens de Grand Bretagne
Finland	<b>SIL</b> Societe Finlandaise des Ingenieurs Electriciens
Italy	<b>AEI</b> Associazione Electrotecnica et Electronic Italiana
Netherlands	<b>KIVI</b> Institut Royale des Ingenieurs de Hollande
Norway	<b>NEF</b> Association Norvegienne d'Electrotechnique
Schweden	<b>SER</b> Association Royale Suedoise d'Ingenieur Electriciens
Spain	<b>AEE</b> Association Electrotecnica Espanola
Switzerland	<b>SEV</b> Association Electrotecnica Suisse

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Table 1 | List of EUREL Foundation Members

respective countries, contributing to ensuring that the Reputation of engineers corresponds to their importance for the society is an important task. Mr. Roggendorf emphasizes that energy technologies, telecommunication technologies and measurement and control technology influence all processes of life. All these technologies know no borders. Engineers thus automatically represent the European idea.

The honorary chairman of the founding assembly, Mr Bovin, member of the Swiss Federal Council, delivers the greetings of the Swiss Federal Government. He highlights the importance of the societies in their respective countries for the safe use of technology. The cooperation of a much larger group of experts and the harmonization of standards means a great progress for the future.

Technical-scientific training and professional support for the engineers were the focus of the objectives which in detail were:

- facilitation of mutual contacts of personal members of the member societies
- improvement of mutual information about technical events
- organization of joint meetings and cooperation at international congresses
- dissemination of articles of technical journals of member societies
- increased attention to the interests of young engineers
- contribution to the harmonization of standards (it should be noted, that CENELEC was founded in 1973, which had assumed the task of harmonizing the electrical standards in Europe)



Dr. Schrans from the Société Royale Belge des Electriciens (SRBE) was elected as the first EUREL-President. SRBE also took over the secretariat of EUREL. A five-member Executive Committee was established to develop action proposals. The proposals were discussed and decided by the annual

General Assembly of all EUREL-members. In the next General Assembly, a new President was also elected from another member association. This practice has been maintained to this day, with the General Assembly taking place in the country of the respective president. The EUREL-Presidents are listed in table 2.



Speech by J.F. Coales



Speech by A. Roggendorf

### Presidents of EUREL

Year	President	Association/Country	General Secretary
1972/73	Schrans, Dr. J.	SRBE/Belgium	Dünner
1973/74	Hagson, C.	SER/Sweden	
1974/75	Gigli, A.	AIT/Italy	
1975/76	Dingeldey, Ronald	VDE/Germany	Fleischer
1976/77	Van t Groenevout, H.	KIVI/ The Netherlands	Fleischer
1977/78	Potila, A.	FINEL/Finland	Fleischer
1978/79	Gosling, W.	IEE/UK	Fleischer
1979/80	Haindl, H.	OVE/Austria	Dietrich
1980/81	Syrota, J.	SEE/France	Dietrich
1981/82	Lonberg, IB	DIF/IS/Denmark	Dietrich
1982/83	Tappy, E.	SEV/Switzerland	Dietrich
1983/84	John, M.	IEE/UK	Dietrich
1984/85	Gonzales-Baylin, T.	AEE/Spain	Dietrich

## Presidents of EUREL

Year	President	Association/Country	General Secretary
1985/86	Holberg, Karl	NEF/Norway	Dietrich
1986/87	Marnet, Chrysanth	VDE/Germany	Dünner
1987/88	Zetterberg, Lars	SER/Sweden	Dünner
1988/89	Loureiro, Carlos	OE/Portugal	Dünner/Helps
1989/90	Mean, E.	SRBE/Belgium	Helps
1990/91	Furlani, S.	AIT/Italy	Helps
1991/92	Chalvon-Demersay	SEE/France	Helps
1992/93	Kupari, E.	FINEL/Finland	Helps/Renard
1993/94	Birkner, A.	OVE/Austria	Renard
1994/95	Brüderlin, R.	SEV/Switzerland	Renard
1995/96	Cuijpers, H.	KIVI/The Netherlands	Renard
1996/97	Preuss, Ernst J.	VDE/Germany	Renard
1997/98	Midwinter, John E.	IEE/Great Britain	Renard
1998/99	Chizzolini, P.	AIT/ Italy	Renard
2099/00	Larsson, K.F.	SER/Sweden	Renard
2000/01	Kromer, I.	MEE/Hungary	Renard
2001/02	Windmüller, Rolf	VDE/Germany	Renard
2002/03	Pirotte, M. Pol	AIM/Belgium	Renard/LarssonM
2003/04	O'Reilly, John	IEE/Great Britain	LarssonM
2004/05	Negrini, Roberto	AIT/Italy	LarssonM/Salfner
2005/06	Strojny, Jan	SEP/Poland	Salfner/Neu
2006/07	Rabensteiner, Günther	OVE/Austria	Neu
2007/08	Gerlach, Gerald	VDE/Germany	Neu
2008/09	Gandelli, Alessandro	AIT/Italy	Neu/Landwehr
2009/10	Gehrer, Willy	Electrosuisse/Switzerland	Landwehr
2010/11	Barglik, Jerzy	SEP/Poland	Landwehr
2011/12	Eriksson, Margaritha	SER / Sweden	Landwehr
2012/13	Hofbauer, Franz	OVE / Austria	Landwehr
2013/14	Nossek, Josef A.	VDE / Germany	Landwehr
2014/15	Gehrer, Willy	Electrosuisse / Switzerland	Landwehr
2015/16	Vaida, Victor	SIER / Romania	Landwehr
2016/17	Klinkert, Rickard	SER / Sweden	Landwehr
2017/18	Hofbauer, Franz	OVE / Austria	Landwehr / Schattke
2018/19	Nowicki, Jacek	SEP / Poland	Schattke
2019/20	Zimmer, Hans	VDE / Germany	Schattke / Oeyen
2020/21	Nauli, Retro	Electrosuisse / Switzerland	Oeyen
2021/22	Loureiro, Carlos	ODE / Portugal	Oeyen
2022/23	Gubina, Ferdinand	EZS / Slovenia	Oeyen

Table 2 | List of EUREL Presidents

## EUREL from 1973 until 1989

In the first years after its foundation, EUREL was increasingly working on topics such as occupational research and the development of statistics that would enable a comparison of the situation of electrical engineers in Europe.

In 1975, the SEV presented a position paper on nuclear energy, which was discussed very controversially. A version revised by VDE, which called greater support for nuclear energy, was adopted by the General Assembly in 1976.

Due to very low membership fees, EUREL's own financial resources were only available to cover office costs. In 1976, the secretariat of EUREL transferred to the VDE for the next few years. In the 1980s the secretariat was also taken over by SEV again and from 1989 until 1993 by IEE.

In 1986, EUREL and IEEE concluded a Memorandum of Understanding. Mutual benefits were agreed for the members of the respective associations and the organization of joint conferences. EUROCON was one of these conferences. However, it quickly turned out that IEEE was more interested in its own advantages. The MoU should be modified in favour of IEEE. EUREL did not agree with this. Strategically, IEEE decided to become the one technical-scientific organization in the field of electrical engineering and information technology in Europe. However, EUREL also had this goal. Thus, the discussion about the cooperation between EUREL and IEEE have been often over the years.





## EUREL from 1990 until 2022

Two events led to the start of an intensive discussion in 1990 about the further strategic orientation of EUREL. These were the imminent establishment of the EU internal market on 1 January 1993 and the reunification of Germany. This makes Europe even more important for the member associations. EUREL increasingly should represent their interests in Brussels.

The concepts for realignment significantly developed by Mr Althoff (VDE) were adopted at the General Assembly in 1991. EUREL should bundle the interests of the European Electrotechnical Associations. Their competence should be brought into the EU bodies in an advisory capacity to influence political decision-making and the development of EU directives on issues of technology policy technology evaluation, research funding, standardization and engineering

education. Conversely, member associations should be provided with information about new developments in EU research programs and planned directives.

For this it was necessary to professionalism the organization of EUREL. The financial framework had been significantly expanded by higher contributions, in particular from IEE and VDE. This allowed the opening of an office in Brussels and the recruitment of a full-time General Secretary. Mr. Renard began this activity in 1993 (see illustration 1).

In addition, the status of EUREL was raised to another level by the official government registration as an association under Belgian law: **“Registered in Belgium as an International Association with Scientific Purpose by Royal Decree of 15. September 1993”**. Statutes in accordance with this law had to be passed by the General Assembly. To supervise the General Secretary, the Board of Directors (BoD) was installed. The Chairmen of the Board of Directors have so far been Messrs Althoff (VDE), Rawlins (IEE), Roberts (IEE), Liess (VDE), Zimmer (VDE) and Jaeger (VDE).

Three mission statements were the basis for successful EUREL activities:

- To facilitate exchange of information and foster a wider dissemination of scientific, technical and other information relevant to electrical engineering between members and other interested bodies.
- To represent members with regional, national and international authorities, organizations or agencies, public or private.
- To foster multilateral collaboration between Member Societies and with other interested bodies, each society retaining its independents.

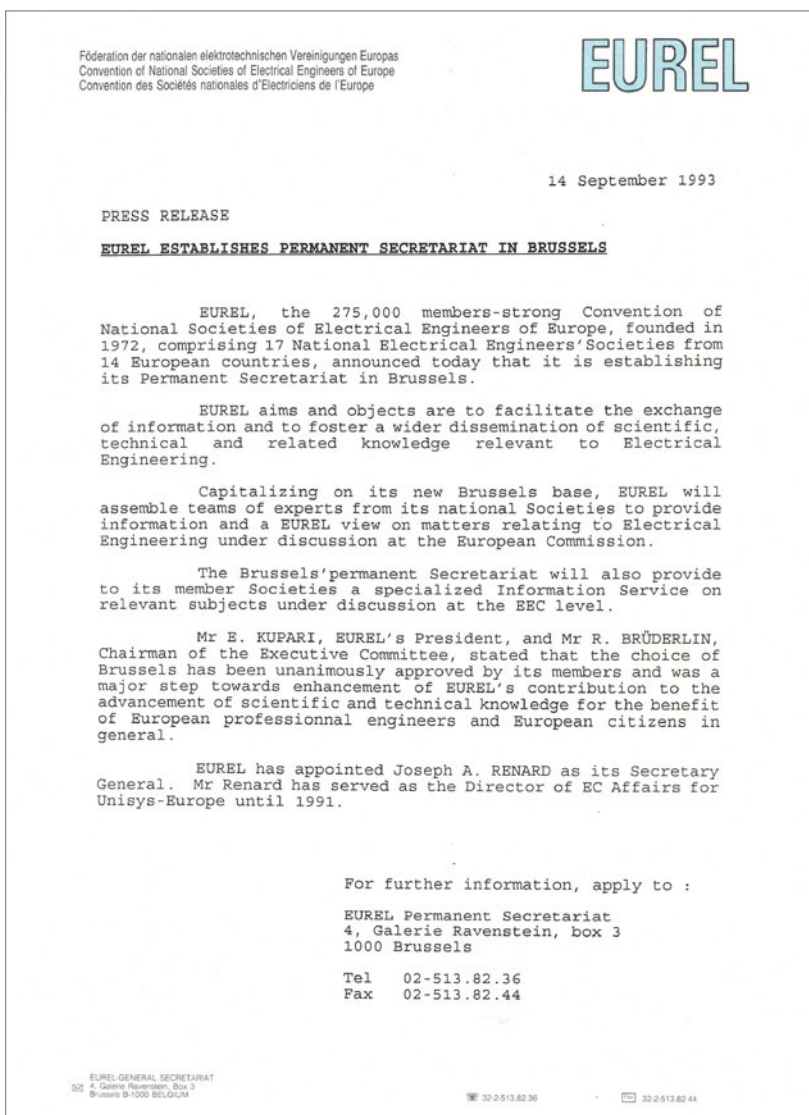


Illustration 1 | Press Release 1993



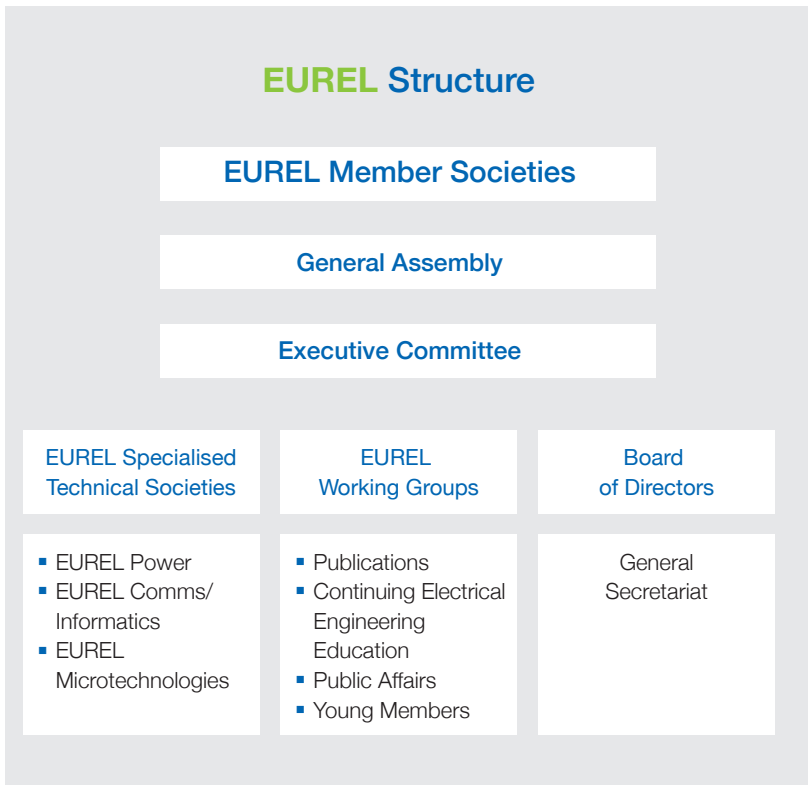


Illustration 2 | Structure of EUREL, 1996

The organization has been significantly expanded to implement these Mission Statements. Of the initial four intended technical societies (Power, Comms, Informatics, Microtechnologies) three became active after a short time by merging Comms and Informatics Comms und Informatics. Four working groups (Publications, Education – later Continuing Electrical Engineering Education, Young Members, Public Affairs) were also established. The structure of EUREL from 1996 is shown in illustration 2.

As from the foundation of the Executive Committee, his essential task is the proposal of EUREL activities. The Chairman of the ExCo since 1998 have been Messrs Fernandes (OE), Grzybowski (SEP), Gandelli (AEI), Larsson (SER), Weber (Electrosuisse), Reichel (OVE), Burger (Electrosuisse), Ericson (SER), Vaida (SIER) Novicki (SEP), Lica (OE). In 1996 EUREL started also his Internet appearance.

## Partner for policy-makers

Political decision-makers have a great interest in scientific studies by neutral organizations. The EUREL Technical Societies therefore developed technical studies. The joint Publication/Public Affairs working group supported their presentation to the Commission and the professional public. One consistent topic was above all the importance of microelectronics and how Europe can keep up with the development of these technology. Initially, the further task of the technical societies to generate their own conferences did not succeed. On the other hand, EUREL was able to participate as a co-sponsor at many conferences.

Three EUREL technical-scientific journals have been published for some years:

- European Transaction on Telecommunication ETT (by AEI/Italy)
- European Transaction on Electrical Power Engineering ETEP (by VDE/Germany)
- Software Proceeding (by IEE/Great Britain).

Later, this was no longer the case, because AEI and IEE canceled their membership and VDE decided to stop the publishing of scientific journals.

The Education Working Group focusses mainly on continuing education and had therefore been renamed into Continuing Electrical Engineering Education (CEEE). The working group took successfully part in three EU-funded projects in the Leonardo-Program, two of which were supervised by EUREL. The themes were “CEE Market Observatory”, “Exchanges for Pilot Courses” and “Exchanges for CEE-Quality”.

EUREL thus contributed to the “European Year of Lifelong Education and Training 1996”. As one result, it could be stated that training structures in European countries are very different, but two basic systems could be crystallized. The Anglo-Saxon System is characterized by the allocation of credits for the different types of continuing education, while courses with participants certificate and companies in-house training dominate continuing education on the European Mainland. To this day, these two orientations exist and repeatedly lead to discussions in the EU-Commission and the individual associations to what extend a common European system is sensible

and feasible. FEANI in particular has been regularly dealing with this topic since the end of the 90th. The background of this discussion is also the cross-border practice of the profession within the EU. For different professions thus the Commission launched some years ago the so-called “Professional Card”. It was also discussed for engineers, but until today not introduced. Further projects between 1997 and 1999 have been “ELECTRA” and “Self Training”. ELECTRA aimed the organization of a comprehensive course on European Institutions and policy. The “Master Class” took place in Brussels in 1998. In the Self Training Project 5 courses have been developed and implemented in the internet and problems concerning open learning of this kind have been analyzed.

Another understanding of these projects: application and implementation of EU-funded projects are complex. The costs usually exceed the funding contribution and therefore require the commitment of member associations. The projects were only possible through the great commitment of IEE, VDE and OE, which did the essential content work. Only organizational tasks could be taken over by the EUREL secretary. EU-funded projects with the leadership of EUREL were no longer initiated afterwards.

### Open to new Eastern European members

With the opening of Eastern Europe, it was also possible to attract new members there. The Association of Polish Electrical Engineers (SEP) was the first association in this region to join in 1993. Thanks to many years of bilateral contacts of EUREL member societies further associations from Eastern Europe were added: Hungarian Electrotechnical Association (MEE), Slovak Electrotechnic Society (SES), Society of Power Engineers in Romania (SIER), Union of Electronics, Electrical Engineering and Telecommunication (CEEC Bulgaria), Electrotechnical Association of Slovenia (EVS). The Society of Electric and Electronics Engineers in Israel (SEEEI) joined EUREL as an Associative Member in 2009 and from 2020 as a full member.

The topic of the introduction of the Bachelor and Master Degrees at European level had generally been discussed very controversially around the turn of the millennium, but only marginally at EUREL. The main disputes took place in the individual EU Member States in connection with the respective implementation there. The discussion of this system, which was customary in the Anglo-Saxon countries, was particularly critical in those countries, where the title “Diplom-Ingenieur” enjoyed a high reputation.

Despite many successful activities, it was not possible to generate conferences organized by EUREL, as already indicated. One reason for that was the expansion behaviour of the IEEE with its conferences in European countries. In some countries, the scientific cooperation of experts with the IEEE was more intensive than with their own association. It also became increasingly difficult to find experts for the development of positions and studies in the EUREL Technical societies. This led to dissatisfaction of some member associations.

VDE, IEE and AEI met in 2002 for a two-day workshop to analyse the situation and to find ways to improve the position of EUREL. The adopted organisation chart is shown in illustration 3. An important finding was that almost all technical topics are already occupied by established European or International Conferences of different organizers. On the one hand subject-specific umbrella associations such as CIGRE, CIRED or CEPIS as well as IEEE offered many conferences. On the other hand, there existed independent scientific bodies on numerous topics that organize conferences with high reputation. For two of such conferences, EUREL has the naming rights: EuCAP European Conference on Antenna Propagation and ECOC European Conference on Optical Communication. Further examples are EUSAR European Conference on Synthetic Aperture Radar, ICLP International Conference on Lighting Protection, EPMCC European Personal and Mobile Communication Conference, International Conference on Electrical Railways, ECRR European Conference on Fixed Radio Systems and Networks and many more. Opportunities were seen in bringing conferences on unoccupied

## EUREL: Convention of National Societies of Electrical Engineers of Europe



Illustration 3 | EUREL Organigram 2002

topics under the roof of EUREL. Possibilities were analysed for the field of microelectronics and for technology policy issues. This led to the EUREL-conference “Maintaining Technical Supremacy” in 2004. Many conferences held by member associations were also increasingly advertised by EUREL, which further increased the number EUREL sponsored conferences. “European Advanced Robotics” and “MICRO TEC 20002 are just two of many examples. The promotion of students and young engineers was particularly intensified, which will be shown later.

In April 2003, Maria Larsson took over the position of Secretary General of Jo Renard, who retired. In 2005 Ms Larsson and EUREL separated. After the General Secretariat moved to Avenue Roger Vandendriesche in the meantime, the rooms were used there together with CEPIS (Council of European Information Societies) from 2006. After a short transitional period, Mr. Neu (VDE) took over the position of General Secretary in 2006. The reason for both measures was on the one hand the reduction of membership fee of VDE and IEE and on the other hand the announcement of IEE to end its membership in EUREL in 2007. The background of this decision was the merger of IEE with another association to IET. In addition, from the point of view of IEE, the implementation of own EUREL conferences was insufficient.

It should be noted that IEE had a special interest in holding conferences and continuing education events in the UK as well as worldwide. With this withdrawal, EUREL's financial resources were once again significantly limited. The VDE provides a space in its Brussels office. In 2008, Mr Landwehr, representative of VDE in Brussels, assumed the function of EUREL General Secretary in addition to his duties in the VDE. This construct still exists today. In 2018 Miss Schattke (VDE) and in 2020 Miss Oyen (VDE) took over the function as General Secretary.

### **Focus on young engineers**

The goal, formulated in 2002, to strengthen the activities of students and young engineers was successfully implemented. The first events have existed since 1994. In the first years, a working group led by an employee from a member association organized the activities. After 2002, the Young Engineers Panel (YEP) was founded for this group of members, which was led

independently by the young engineers. Many events were no longer initiated and carried out by employees, but by the young engineers themselves. EUREL thus gave students and young engineers the opportunity to gain knowledge and experience in the organization of international events. This experience is also of great benefit to their professional life. The chairman of the YEP received guest status in the General Assembly and later also in the Executive Committee. Contacts with the two other European umbrella associations for young engineers (EYE, BEST) have been established.

The EUREL event “Young Engineers Seminar (YES)” in Brussels, which took place for the first time in 1995, became an integral part of the annual Program. Young engineers and students were given insights into the work of the European Commission of other European umbrella associations and in non-governmental organizations (NGO's). At the same time, it served as a forum for cooperation at European level.

Following the model “Young Net” in the VDE, platforms were created first in OVE and later also in other member associations especially for students and young engineers. This is a good example of how intensive exchange of information at European level leads to the successful transfer of best practices from one member associations to other member associations.

To date, the annual EUREL “International Management Cup (IMC)”, a management game to give young engineers a practical introduction to the corporate governance, has been developed successfully. Teams from member associations can participate. Up to 250 participants have been registered in individual years. The first rounds take place virtually and the final round at the site of the General Assembly with the support of the host member association. Thus, experiences with virtual platforms existed since many years, which was very helpful with regard to corona-pandemic. As further integral part the “Field Trip” is organized annually in one of the member states. Knowledge of typical technical facilities is imparted and the exchange of experience across national borders is strengthened.

### **Two landmark studies**

Visibility as a technical-scientific association at European level gained EUREL from 2010 through two studies in the field of energy technology. A working group led by Messers Schröppel (VDE)





and Gehrler (Elektrosuisse) developed the EUREL-Studies “Electrical Power Vision 2040 for Europe” and “Energy Transition for Europe”. These were presented to representatives of the European Commission and the European Parliament and received great attention. This led to a renewed discussion about the content orientation of EUREL. A project to develop the future strategy was decided, among others with the focus on strengthening the professional presence.

For the funds available in the reserves, a colleague under the direction of the Secretary General has been hired for a limited period of time (2016-2018). Analysis and measures led to the conclusion that the offers for young engineers and students could be successfully strengthened again. Communication with the member associations was also significantly improved. The benefits of a EUREL-membership have been summarized and published on the Internet. Many contacts with representatives of the commission and other European associations were increased or rebuilt. In 2019 EUREL became a member of Engineers Europe Advisory Group.

Despite many different approaches, however, an essential goal of creating a permanent offer of technical-scientific content was not achieved. Working groups on the preparation of studies and position papers should be established for the current topics proposed by the Executive Committee. Despite intensive efforts by the office, they did not come about. An essential reason here turned out that the experts are in great demand, especially in the respective current fields. Most of the experts contribute their knowledge in their short time rather to a high scientific reputation or financed studies.

## Translation and Europeanisation of national studies

As a consequence, an earlier idea was taken up in 2019. Existing studies in member associations should be translated and made be available to all member associations. In a further step, these should be modified with pan-European aspects and published as EUREL-studies. Rules according to which this should be done were adopted in 2020. Some studies/ position papers have already been published, such as “Technological sovereignty in the EU” (Methodology and Recommendations), “Hidden Electronics” (white paper on the Future of Semiconductor Technology in Europe) or “Photonic Electronic Integration” (Key Technologies for Communication and Sensor). In order to disseminate these studies, a new additional digital-based format was implemented in 2021 with EUREL eMeetup. This format was very well received. In May 2022, the first edition of “EUREL Brussels Notes – What shakes the EU bubble” was published.



# Conclusion

The basic idea of the founders still characterizes EUREL today. The fundamental goals, formulated by the founders, also apply today. Technical- scientific topics, political aspects, exchange of information and promotion of young talent were the center of the considerations. Especially the political aspects are of particular importance in the current situation of 2022. The cohesion of Europe, to which the European Associations make an important contribution, is indispensable.

EUREL focal points of activities and organizational structure have changed over the course of 50 years. As in all umbrella organisations, the special interests of individual members triggered discussions in EUREL. This led to occasional cancellation of a membership. From 1993 many associations of Eastern Europe came in.

The numerous EUREL offers for young engineers and students are very well received and have developed into an essential pillar. In the most of the European countries, there is a shortage of engineers, which will rather intensify in the future. Therefore, the commitment to the next generation of engineers is particular important and EUREL makes an excellent contribution to this. Contacts with other relevant European associations are close. EUREL is well known at the European Commission and the European Parliament but its visibility has to be increased. The prerequisite for this are studies and position papers, which are useful in the political decision-making and compensate for lobbying of individual interest groups. Even if, for various reasons, the technical-scientific content could not be generated in the originally intended form, sustainable formats were found with the further development of existing studies and position papers of individual

members on EUREL-publications. The new “eMeetup-events” give a support to this. Communication with and among the member associations is ensured. EUREL promotes bilateral activities of the Member Societies. Many best practice examples of individual associations led to successful activities in other associations. The establishment of networks especially for students and young engineers is particular emphasized here. Financially EUREL is very solid. In these aspects, surely, new members or former members will join EUREL.

The basis for a successful future of EUREL as the umbrella organization of the individual technical-scientific associations in Europe in the field of electrical engineering and information technology and their applications have been proven.



# Voices of the EUREL Member Associations



**Markus Burger**, Managing Director Electrosuisse (Switzerland)

“ EUREL complements national networking opportunities of professional associations into a culturally similar European network. This is an attractive opportunity, especially for students and young professionals, to communicate in English beyond national borders and to establish international contacts.

It has always been a challenge for Europe that the culturally and economically diverse and multilingual countries find a common path and are able to sufficiently bundle their strengths in the globally competitive context. EUREL's joint collaboration platform contributes to mutual understanding and this mutual rapprochement. It also promotes the exchange of knowledge across linguistic borders, including through the creation of personal contacts, which are automatically established along the way.”



ORDEM  
DOS  
ENGENHEIROS

**Jorge Lica**, Vice-President OE Ordem dos Engenheiros (Portugal)

“ EUREL, being an umbrella organization that brings together associations of Electric and Electronic engineers, works as a cross-European network of national networks of professionals working locally and with a huge positive impact on society, the economy and the environment. These local networks are in a very good position to share knowledge and work methodologies, on fundamental electrotechnical-based technologies, for the development and defense of European citizens and values. Its members, individual and collective, have the responsibility and mission of transmitting the accumulated knowledge to the younger generations and encouraging innovation and discovery in electrically-based technologies. Associate members will be able to use EUREL as an organization that allows cooperation between professionals and the exchange of knowledge in a network.

Europe has serious gaps in terms of availability of resources, whether energy, raw materials, population (labour-force) and means of security and territorial defense. The usual solution has been to import or resort to availabilities outside Europe, which translates into serious external dependence. Europe will have to relocate the industry within its territory and for that to increase its capacity in its most externally dependent areas. All these areas are heavily dependent on electrical and electronic based equipment and systems. The development of equipment and fundamental systems to strengthen the areas of greatest European fragility, requires strengthening the quantity and quality of electrical and electronic engineering professionals. EUREL is a European organization that can play a central role in assessing European professional needs, current availabilities, and future gaps. Together with the engineering training schools, we can create a European training plan in terms of electrical engineering. EUREL exists, it has a history of 50 years, it is organized, and, through its members, it can carry out a study and planning work that is a consistent alternative to the simple game of the markets. We know that liberal administrations do not plan long-term collective strategies. Europe needs a long-term vision in many areas and certainly a vision of engineering availability to be able to face the future with confidence. EUREL can be an organization that adopts programs of study and professional evaluation and can be a support to the definition of European development policies.”



**Ferdinand Gubina**, Former President SZE Electrotechnical Association of Slovenia



After Slovenia decided to be a member of EU, we faced new possibility for the Slovenian economy and special on the electrotechnical fields. We knew that we should improve business in our companies with new technology and value added. Electrotechnical Association of Slovenia decided to join EUREL. Alone we can do a lot. But without broadening our minds and activities we wouldn't be able to cooperate on EU market in competitive manner.

Technology is together with Artificial Intelligence more and more sophisticated. EUREL can organise and motivate member organisations in a productive way spreading key facts and solutions for developing industry and economy in all EU countries. EUREL can organise projects on new PV technology, microelectronics, medical engineering, smart grids in electrical engineering, communication systems, robot systems in different fields. We believe that EUREL will find its way on making synergy in projects between member organisations. Origin of technical solutions, ideas, electrical safety, quality of products, services and cost relationships are most important for competitive edge in the EU and worldwide market. It is important to give full support to developing of cooperation between member organisations and create short and long term planning targets of EUREL.”

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**Peter Reichel**, Secretary General OVE Austrian Association for Electrical Engineering



EUREL as a network of the national electrical engineering associations offers the possibility to discuss current topics of the sector in a European context, to develop a common understanding and to represent a coordinated position. With the student network YEP, EUREL supports the sector in the area of young talent and promotes a European understanding of the sector. The personal contact with those responsible in each case promotes a network of mutual understanding and offers mutual stimulation.

Electricity is the basis for our highly technical society, and the availability of electricity at economically acceptable conditions is the prerequisite for a prosperous economy and the prosperity of our society. This means that the energy transition is a central topic and connected to it is future mobility and building management. On the one hand, EUREL can contribute to an overall understanding at EU level and objectively demonstrate the necessities for successful implementation. Another topic is the re-industrialisation of Europe with aspects such as CO2-free processes in the entire production and supply chain structure, European's Chips Act, Industry 5.0, circular economy and the professional service sector, in which automation and robotisation play a central role. EUREL can support the search for the necessary and urgently needed skilled workers through activities in the field of young talent, but also by highlighting the necessary qualifications and training measures.”

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**Victor Vaida**, President SIER Society of Power Engineers in Romania

“ The Society of Energy Engineers from Romania (SIER) has been a member of EUREL for 20 years. In this capacity SIER was active, and myself participating in the management of EUREL, where I collaborated with several National Associations that are members of EUREL (VDE Germany, SEP Poland, MEE Hungary, OVE Austria, VDE Switzerland, ESZ Slovenia, CEEE Bulgaria, SEEI Israel) with which it has collaboration agreements. SIER and myself participated in several scientific European events together with other EUREL members. Through EUREL, SIER developed its international scientific collaboration.

One of Europe’s major problems is the “energy crisis” with major effects on the economy, energy and the living standards in our countries. EUREL’s members must be active together to find solutions for these problems and do scientific events and publications with this theme. SIER, through myself as acting President, published the book “Energy Crisis in Romania” in August 2022, providing information and proposals to state institutions regarding the energy crisis and its effects. At the National Energy Conference organized by SIER in Oct 2022 in Sinaia, the theme of the “energy crisis” is discussed.”

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**Fabian Zavarsky**, Vice-Chairman EUREL Young Engineers Panel

“ It is important to see beyond the immediate task. With EUREL, professional exchange on an international level is possible from the beginning of studies to working life.

The energy revolution affects us not only in Europe, but is a global issue. Thus, it is not only important to invest in the education of young technicians who will shape the future. It is also necessary to offer them a platform where exchange and approaches to solutions can be found. EUREL is that platform.”

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## VDE

**Ansgar Hinz**, CEO VDE Association for Electrical, Electronic and Information Technologies (Germany)

“ EUREL establishes a framework for stability in Europe. It connects electrical, electronics and information technology engineers from young to old across Europe and beyond. EUREL facilitates an inspiring exchange and contributes specifically to sharing important approaches to solutions. EUREL provides know-how and knowledge – especially for politicians and EU authorities. The expertise of the EUREL network can also be used in the member countries.

A technologically united Europe is an absolute necessity. Only together we can master key issues such as Technological Sovereignty from microchips to e-mobility to AI, Climate Protection, Resilience on many kinds and shortage of specialised personnel. These are the challenges EUREL and its members have to manage.”

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**Jan Danilsson**, Board Member SER Association for Sweden's Electrical, Computer and IT Engineers



In SER we value the possibility of sharing information with other members in EUREL and also to create opportunities for students to meet others in Europe.

The demand for electronic and IT engineers will increase and EUREL can play their part to promote these industries. EUREL can also facilitate a dialogue with the EU political level to increase the awareness of the importance of these sectors for society.”

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**Emil Koifman**, Chairman SEEEI Society of Electrical and Electronic Engineering in Israel



Israel, being an island from the political and strategic point of view, is looking for bridges, including professional, to Europe. EUREL is one of them, constituting a strong platform for collaboration and sharing of experience with European countries. For the individual engineer in Israel which is striving for professional contact and relationship with other colleagues, EUREL is offering a broad range of technical assessments and analysis and professional opportunities.

The technical and political ambience is changing quickly and challenges that were relevant few time ago were replaced by other, completely unexpected and surprising. Europe is facing a deep energy crisis due to gas problem from Russia, it is suggested that EUREL plays a role of mediator between the different European strategies to find the common factor and make it known to the decision makers. EUREL should also continue and increase its efforts related to encouraging the new student generations for excellency.”

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**Piotr Szymczak**, President SEP Association of Polish Electrical Engineers



Poland is a member of European Union since 1st May 2004. Thanks to this it was a chance for Polish professional organisations and associations to collaborate with similar organisations and associations of European countries – members of the European Union. In the aspect of contemporary scientific and technology problems in the field of energy, electronics, communication, information technology and international exchange of ideas and the joint action of national associations of Electrical Engineers within EUREL community is able to support effectively solving problems in these fields of technology of the European area.

The challenges for Europe and EUREL: To Strengthen the organisation of EUREL community by increasing the number of national members and providing greater material resources. To bring the competence of the EUREL community into the relevant EU bodies in an advisory capacity. To influence the political decision-making process and the drafting of the EU Commission's guidelines in matters of technology policy, technology assessment, research promotion, standardisation activities and engineering education. To connect the electrical, electronic, and information engineers from young to old across Europe and beyond.”

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## Links

- [EUREL Position Papers](#)
- [Ukraine Declaration](#)
- [EUREL on LinkedIn](#)
- [Young Engineers Panel – YEP](#)
- [Young Engineers Seminar – YES](#)
- [EUREL Field Trip](#)
- [International Management Cup](#)