

## INVITED REVIEW

# World Federation of Neurology

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3JW, UK.Email: [wolfgang.grisold@wfneurology.org](mailto:wolfgang.grisold@wfneurology.org)**Abstract**

**Background and purpose:** To acknowledge the occasion of the 10th anniversary of the formation of the European Academy of Neurology (EAN), the World Federation of Neurology was invited to contribute its perspective on the formation of the EAN and its activities over the past decade.

**Methods:** This article is based on the experiences of the author in several functions with the European Union of Medical Specialists, the European Federation of Neurology and the European Neurological Society and with the World Federation of Neurology as a trustee since 2009. This article is supported by the author's own archive as well as by several publications.

**Results:** The formation of the EAN was influenced by the activities of the two main predecessor societies, the European Neurological Society and European Federation of Neurology, which left an imprint on the structure of the EAN. The newly formed EAN underwent rigorous structural and organizational changes and has been acting as a successful and independent regional society, expanding increasingly in worldwide activities.

**Conclusion:** The EAN, with its 47 member countries, strong democratic leadership and structure, is an excellent example of a regional society with expanding global influence that uses its advocacy skills to influence and improve the structure of neurology in Europe.

**KEYWORDS**

brain health, education, European Academy of Neurology, historic development, World Brain Day, World Federation of Neurology

## INTRODUCTION

The World Federation of Neurology (WFN) was founded in 1957 with a mission to foster quality neurology and brain health worldwide [1]. As a UK-based charity that presently has 124 member societies, the WFN offers worldwide educational programmes, global and international contacts and partners, biannual congresses, and links with its member societies and represented regions. On a global level, the WFN is a non-state actor of both the World Health Organization (WHO) and the United Nations Economic and Social Council and contributes to global health matters.

As with all societies, the WFN undergoes constant developments, adaptations and changes. The book by Johan Aarli [2] portrays the history of the WFN until 2014. The formation of the European Academy of Neurology (EAN) from the merging of the European Neurological Society (ENS) and the European Federation of Neurological Societies (EFNS) is anticipated in this book. This article illuminates the development of the EAN over the past 10 years.

This invited review on the view of the WFN on the EAN is also an important opportunity, from the point of the WFN, to examine the WFN's relations with the European societies. This includes reviewing the interactions of the previous ENS and EFNS and the current EAN with the ongoing WFN developments over time, viewing the

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present state of the EAN and WFN and visualizing the future. This article is composed of four components: (1) the historical development and role of the WFN, (2) the EAN, (3) the EAN and WFN and (4) the past and the future.

## METHODS

This article is based on the personal experiences of the author across several functions with the European Union of Medical Specialists (UEMS) European Board and Section of Neurology (EBN) [3], with the EFNS, during contacts with the ENS, and as a member of the WFN education committee. These events and activities, while not compiled using rigorous historical methods, are supported by the author's own records and archive as well as by several publications which are noted in the text and in the valuable EFNS archive [4].

During the formation of the EAN, the author had no personal involvement in the European societies. The author has been a trustee of the WFN since 2009, served as the secretary general of the WFN from 2014 to 2021, and took the position of president of the WFN in 2022.

In addition to being the current president of the WFN, the author also discloses that he has previously worked in several positions for the EFNS (education committee and other committees) and UEMS-EBN (secretary and president), and he was on the joint committee of the ENS, EFNS and UEMS on the European board examination. These experiences may influence the presented view and convey a strong European perspective.

## History

Historically, the short-lived 'Pan-European Society of Neurology' was the direct predecessor of the EFNS and at its last congress in Vienna in 1991 the foundation of the EFNS was decided. This followed the prior foundation of the ENS in 1989, initiated by Peter K. Thomas (UK) and Gérard Said (France), which had its emphasis on individual membership and high-quality science. Initially, projects on manpower survey were launched by the ENS [5], which proved to be a unique and valuable resource. Subsequently, these types of investigations were followed by continuous work of the EFNS.

The UEMS-EBN was already established [6], with dual membership from the national scientific society (e.g., National Academy of Sciences) and from the professional society from each country. This UEMS-EBN was always independent from the European neurological scientific societies and remained independent despite several ongoing cooperative activities, such as the present European Board Examination, the European Training Requirements and the permanent reviewing activity for the UEMS European Accreditation Council for Continuing Medical Education (EACCME).

Both the ENS and the EFNS competed for European primacy and leadership for several years until the process of unification, despite their different membership concepts and contrasting structure and

content. From the point of view of the WFN at the time, support was directed towards the EFNS, which is also clearly expressed in Johan Aarli's book on the history of the WFN [7]. This preference had a negative impact on the relations of the WFN with the ENS. The process of unification was subsequently terminated [8] and both societies were transformed into the EAN.

The European Board Examination, which is now listed as a joint activity of the UEMS-EBN, the Council for European Specialists Medical Assessment [9] and the EAN, was one of the first shared tasks of the ENS and EFNS jointly with the UEMS. The examination initially was supported by the WFN, and over several years examiners of the WFN were active in the examination and the certificates were co-signed by the WFN. The UEMS-EBN, at the time of the creation of the European Board Examination, had the main share of work and responsibility. With Sven Melgren (Norway) leading the formation of the question pool, technical help in the development of the multiple choice question technical system by Romana Koenig (Austria) from the Vienna Medical Academy [10], and scientific influence and support from the Turkish Ege University under the educational leadership of S. Ayhan Caliskan (Turkey), the examination was finally introduced during the ENS meeting in Milan in 2009 [11].

The EFNS was involved in the creation of the European Federation of Neurological Associations, and there were joint educational activities that included patients and health professionals [12]. The concept of patient educational days and patient awareness days at congresses also emerged and was implemented by the EFNS.

In addition, the EFNS engaged in neuropolitical issues, such as education [13–19], manpower [20] and neurology, particularly in previous East European states [21]. The EFNS also considered implementing its own evaluation system of meetings and education, but this was not pursued further after the development of the UEMS-EACCME accreditation system [22]. Another project was to adapt *Continuum* [23] from the American Academy of Neurology as a constant source of education, but there were concerns from the EFNS board at the time that this material would lack specificity for Europe.

The information on worldwide manpower included data from Europe that were collected by Donna Bergen (USA) from the WFN [24] and at later time point by Andreas Steck (Switzerland) and colleagues [25] and used as comparable sources.

The engagement in neuroscience can be marked by the foundation and engagement of the EFNS in the European Brain Council. This initial engagement and involvement in the European Brain Council was followed by Jes Oleson (Denmark) [26, 27].

The unification of the ENS and EFNS under the leadership of the first EAN president Guenter Deuschl (Germany) allowed reorganization of the preexisting structures and was the beginning of the 'present' EAN.

## The European Academy of Neurology

By worldwide comparisons, the EAN, with its 47 member countries, democratic leadership and structure, is an example of a

well-organized regional society fulfilling the needs of European neurology with regard to meetings, scientific and educational content, and using its advocacy skills to influence and improve the structure of neurology in Europe. This successful concept of the organization is also based on its administration. The growth of the individual membership, the success of the congresses, and the *European Journal of Neurology* [28] are proof of the concept. Other important steps were the development of the EAN's own independent in-house congress organization, the increasing inclusion of young neurologists, and the multifaceted training and educational programmes.

The European Academy of Neurology and the World Federation of Neurology

The growth of the EAN in the region, in a process of natural emancipation, has developed the relationship between the WFN and the EAN into an equal partnership, and the WFN is pleased that this development has given European neurology a strong voice. This is an exemplary development of all the functions needed in a regional society.

The relations of the WFN with the EAN and the predecessor EFNS are demonstrated in Table 1. Two time periods—2000–2014 (EFNS) and 2014–2024 (EAN)—were included with regard to formal and informal joint activities.

Between the WFN and EFNS, there was a formal understanding that, in years when the World Congress of Neurology (WCN)

was taking place in Europe, the European organization (EFNS) would organize a joint congress together with the WFN. This was implemented for the 2001 WCN in London as well as for the 2013 WCN in Vienna at an eye-level partnership. However, this joint activity was discontinued and not further formalized.

One project that was successfully continued is the EAN Regional Teaching Course (RTC) [29], which supports training in Africa. Initially introduced and led by the EFNS, it is now under the leadership of the EAN. The WFN has been a constant sponsor and contributor to this ongoing project.

Other formal joint activities include the invitation of the president of the regional society to the WFN Council of Delegates, and joint leadership meetings at the EAN congresses and the WCN. Additionally, there were numerous invitations to joint sessions, meetings and committees.

In addition to the RTC, the EAN is engaged in the World Brain Day [30]. Moreover, there is mutual bilateral support for the brain health concept [31, 32].

There is an understanding and cooperation between the leadership of the WFN and the EAN that is reflected in several activities, such as joint congress sessions and participation in the Brain Health Initiative. There is also a mutual interest in WHO activities, such as the Intersectoral Global Action Plan on epilepsy and other neurological disorders (IGAP) and regional WHO meetings in Europe. Notably, there was joint committee participation by the EAN and WFN in the regional meetings of the WHO in Rome (2018) and in Astana (2023) (Figure 1).

The EAN, as the regional society and successor of the EFNS, has a formal representation in the WFN, defined by the Regional Committees [33]. The WFN at present has no formal representation within the EAN.

Organizationally, there is overlap of individuals on committees, subcommittees, specialist groups and similar bodies between the two societies. This has the benefit of cooperation and joint activities, but potential conflicts of interest need to be defined and openly declared.

The past and the future

The evolution of neurology continues, and the old paradigm of neurology is changing from a discipline of excellent diagnosis but lack of treatment to a discipline of innovation, prevention and treatment. This unites neurologists worldwide, and in addition to innovation and research, education at all levels must be supported in the form of training, Continuing Medical Education and Continuing Professional Development.

Scientific societies have traditionally been member-based scientific societies, focusing on science, development and the organization of meetings. They are now evolving into more complex societies, taking on an increasing number of other roles and agendas, such as education, training, accreditation and recognition, and active engagement in advocacy in the

TABLE 1 The relations of the WFN with the EAN (2014–2024) and its predecessor EFNS (2000–2014).

	EFNS (2000–2014)	EAN (2014–2024)
Formal	WFN-EFNS Congress agreement	World Brain Day
	Regional Teaching Course <sup>a</sup>	Regional Teaching Course <sup>a</sup>
		Regional representation
		General neurology (project)
Informal	European Board Examination	WHO regional representation
		Brain Health
		IGAP
		Joint Congress sessions
Potential		Bilateral representation
		Core curriculum
		Board examination
		Training centres
		Department visits

Abbreviations: EAN, European Academy of Neurology; EFNS, European Federation of Neurological Societies; IGAP, Intersectoral Global Action Plan; WFN, World Federation of Neurology; WHO, World Health Organization.

<sup>a</sup>Indicates continuation across both time periods.



**FIGURE 1** The WFN–EAN delegation in Astana 2023, Kazakhstan. Left to right: Matilde Leonardi (Italy, EAN), Tedros Ghebreyesus (Ethiopia, WHO), Wolfgang Grisold (Austria, WFN) and Ksenia Pochigewa (Russia, WFN).

micro-, meso- and macro-perspectives [34]. To achieve these goals, structural changes in health systems and health policy are needed that cannot be achieved by individual societies alone, so cooperative efforts are needed. Activities must be based on advocacy, public relations and communication. On the regional and global level, the WHO, with its 194 member countries, has a detailed outline on health structures. The WFN as a non-state actor of the WHO has a long history of cooperation. For example, two editions of the *Atlas of Neurology* were published by the WHO and WFN [35].

The most important current project of the WHO for neurology worldwide is the IGAP [36], which was implemented at the World Health Assembly in 2022 and consists of five pillars: advocacy, prevention, therapy, research and innovation, and public health [37]. This project intends to support the implementation of neurology worldwide. At present, the WHO is working on an elaborate ‘tool-kit of implementation for the IGAP’, and from the view of the WFN offers a continued platform for worldwide cooperation to meet its ambitious goals.

The role of neurological societies, such as the WFN, the EAN and other regional societies, will be to focus concentration on content, therapy, prevention and advocacy. Additionally, they will need to foster research and innovation and recognize the emerging importance of public health in future structural thinking and planning.

Education at all levels is an important task for neurological societies, and the EAN has a range of educational tools. The WFN has also maintained several educational programmes for many years, ranging from individual support and grants to departmental visits [38] and training centres [39]. Currently, the RTC is managed by the EAN, with the participation of the WFN and other stakeholders.

Education is a mission of all regional neurological societies worldwide, and the long list of educational opportunities offered by

the EAN and/or the WFN could be aligned to develop and invest in possible joint projects and synergies.

Learning from the past confirms that European neurological societies have been actively involved in shaping European neurology, which is a stronghold of neurology worldwide and covers a wide spectrum of science, education and political engagement for the development of structures in the healthcare system.

There is now an important tool, the IGAP, which supports neurology worldwide and implicitly offers many opportunities for synergy and collaboration in pursuit of the ultimate aim, which is to improve the fate of people affected by neurological diseases, enabling access to care and treatment.

#### CONFLICT OF INTEREST STATEMENT

The Author has nothing to disclose. The study was not sponsored.

#### DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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