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The Story of the European Union for Systemics
(in memory of Evelyne Andreewsky,
EUS founding member)

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# The Story of the European Union for Systemics.

(in memory of Evelyne ANDREEWSKY, EUS founding member)

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#### **Abstract**

UES-EUS was designed, in 1988, thanks to the leadership of French researchers as a tool to create an international, multi-cultural, multi-lingual, trans-disciplinary network, of educators, teachers, researchers and managers in Systems Thinking. The task of this new experts network was to set up educational, broadcasting and research actions, at any level and for every people, to promote the scientific holistic approach, and particularly systems science and cybernetics, both in Humanities and Sciences, in order to develop innovative research topics and promote the establishment of collaborative research transdisciplinary networks in systems thinking.

#### Introduction

Under the leadership of Evelyne Andreewsky<sup>1</sup>, the *first European Union for Systems Science* (*EUS*) was founded, as a Federation of National Societies, by French researchers of AFCET, in 1988, for promoting systems science research and its applications, at the European level. Promoting cross-disciplinary exchanges, the EUS was intended to strive to create, with its network of Societies, *an ecosystem for the advancement of Systems Thinking*, with cross-fertilisation of its theoretical foundations, methodologies and applications, and to allow its dissemination. Many meetings, seminars, summer schools, congresses and publications, were organized, co-organized or coordinated by the EUS (Table 1). In her mind Evelyne Andreewsky wanted that EUS would be the "roundtable" where "knowledge and practice" and "practice and knowledge" could interact and fuse together for the emergence not only of new practices and knowledges but also of a new society.

After her death in 2007, just before the Lisboa Congress organised by APOCOSIS in 2008, the European Union for Systemics was re-founded. The new UES-EUS (Union Européenne de Systémique-European Union for Systemics, <a href="https://www.ues-eus.eu/en/presentation/">https://www.ues-eus.eu/en/presentation/</a>) was created in 2011, October 22, as an ASBL, in Brussels, Belgium, by AFSCET (Association Française de Science des Systèmes), ENSAM, Paris, France, AIRS (Associatione Italiana per la Ricerca sui Sistemi), Milano, Italy, SESGE (Sociedad Espanola de Sistemas Generales), Valencia, Spain and S&O (Systèmes & Organisations), Brussels, Belgium. UES-EUS is always a federation of National Societies as IFSR (Vienna, Austria) is. Without competition but complementarity, IFSR is an English speaking old big organisation, UES-EUS is a multi-language speaking small young one with English, French and Spanish as main languages. Currently the Hellenic Society for Systemic Studies (HSSS) and the Associazione Italiana di Epistemologia e Metodologia Sistemiche (AIEMS) have joined EUS-UES, but not APOCOSIS.

1 Born in 1933, she died on December 15, 2007, in Paris. Former SupElec student, ESE graduate engineer, PhD in computer science, University Pierre et Marie Curie, Paris, Honorary Research Director at INSERM (the French National Institute for Health and Medicine Research), Evelyne Andreewsky has worked at UNESCO for the **education and training in computer science of young adults** in France and Latin America. After joining Professor François Lhermitte's Neuropsychology team at La Pitié-Salpêtrière in Paris, she worked on language disorders. She was one of the first researchers to study, through the study of language understanding, the relationship between *Artificial Intelligence and Cognitive Sciences*. From the beginning of her scientific life she adopted a trans-disciplinary position, that was, at this time, risky and nonconsensual. As a member of the AFSCET (<a href="http://www.afscet.asso.fr">http://www.afscet.asso.fr</a>), or EUS boards she never gave up this holistic behaviour. She was appointed as EUS President in 1991. The first EUS board included Evelyne Andreewsky (France) President, Gianfranco Minati (Italy) and Nicholas Paritsis (Greece) Vice-Presidents and Lorenzo Ferrer Figueras (Spain) treasurer.

## 1. Activities

The Systems Science European Union (EUS) started in 1989. It was an European Federation of National Systems Science Societies, including firstly the Czech, English, French, Greek, Italian and Spanish Systems Science Societies. The EUS main goal was to promote the development of Systems Science, and co-ordinate, at an European level, activities such as meetings, lectures and other scientific events like summer schools. Since 1990, teaching in the fields of Systems Science, EUS has namely co-ordinated with its members Societies a set of Systems Science Summer Schools, successively in Creta (Greece), Mont-Ste-Odile (France), Hull (U.K.), Valencia (Spain) and Neuchâtel (Switzerland).

The first **EUS** Congress took place from 3 to 6 October 1989 in Lausanne (Switzerland), organised by the AFCET (French Association for Economic and Technical Cybernetics), with the support of the University of Lausanne, HEC-INFORGE (Institute of Informatics and Organisation).

The second Congress took place from 5 to 8 October 1993 in Prague (Czech Republic). Then, every 3 years, every congress was organised by the office of a EUS member Society which President will then get the Presidency of the EUS office (<u>Table 1</u>).

This every three years **EUS** Congresses constituted a great conversational scene for the European systems scientists with talks from researchers from the whole world. For example, the 2005 congress, organised by AFSCET, in Paris, gathered more than 250 talks. These congresses express the interface links provided by the EUS and the synergetic role of Systems Thinking.

Linking together theoretical, methodological and practical approaches, systemics contributes to the synergy of the various disciplines, promoting scientific, societal, economical and technical enhancements. These congresses aim to open and extend the approaches of specialists of various disciplines. Since 2011, the new UES-EUS has also organised annual seminars (<u>Table 2</u>).

## 2. The EUS and UES-EUS on line reviews.

Allowing to talk and discuss about theories and applications is not enough, so conferences papers must be freely available to provide a framework for practical methods of analysis and dissemination of systemic thinking. That is the reason why firstly a printed review **RIS** <sup>2</sup> was created by **AFCET** in 1987 and then an online review **Res Systemica** <sup>3</sup> was created by **AFSCET** and **EUS** in 2000.

The first issue of the new international UES-EUS online Journal, *Acta Europeana Systemica* (AES), <a href="http://aes.ues-eus.eu/aes2011/enteteAES2011.html">http://aes.ues-eus.eu/aes2011/enteteAES2011.html</a>, was a report about the first Congress, in Brussels, in October 2011. The Belgian French speaking researcher, Christian de DUVE<sup>4</sup>, Nobel Prize Laureate in physiology or medicine 1974, presented the inaugural talk about "*Le poids du passé sur l'avenir du vivant*." That was his last talk, just before his death in 2013<sup>5</sup>.

In 1974 he founded the International Institute of Cellular and Molecular Pathology in Brussels, renamed the *de Duve Institute* in 2005. He was the founding President of the L'Oréal-UNESCO Awards for Women in Science. He had been long suffering from cancer and atrial fibrillation. His health problems were exacerbated by a fall in his home. So, he decided to end his life by legal euthanasia. He died on 4 May 2013, at his home in Nethen, Belgium, aged 95.

<sup>2</sup> Thanks to AFSCET, all the issues of the RIS, *Revue Internationale de Systémique*, (from 1987 to 1998), which was a tribune for AFCET and UES, are available on line at <a href="http://www.res-systemica.org/ris/ris.html">http://www.res-systemica.org/ris/ris.html</a>

<sup>3</sup> Linking cognitive sciences, systems thinking and complexity modelling approaches, Evelyne Andreewsky has written many books. For example, within the AFCET, she coordinated the publication of the book "Systémique et Cognition" (Dunod, Paris, 1991) and, with the AFSCET, she collaborated with Professor Robert Delorme on the book "Seconde cybernétique et complexité: Rencontres avec Heinz von Foerster" (2004). She has written numerous scientific papers and was the leader of numerous seminars. Among her volunteer activities, she was the chief editor of the first electronic journal of the UES Res-Systemica (http://www.res-systemica.org), currently the journal of AFSCET and one of the leaders of the association MCX (Modelling of CompleXity, https://archive.mcxapc.org)

<sup>4</sup> https://en.wikipedia.org/wiki/Christian de Duve

<sup>5</sup> Christian de Duve made serendipitous discoveries of two cell organelles, peroxisome and lysosome. He invented scientific concepts such as autophagy, endocytosis and exocytosis.

## 1st Congress: 3-6 October 1989, Lausanne (Switzerland)

Organised by the **French** Systems Science Association AFCET, Collège de Systémique, with the support of the Lausanne University.

## 2nd Congress: 5-8 October 1993, Prague (Czech Rep.)

Organised by the "Systems Science and Information" **Czech** Association, with the support of the European Community.

## 3rd Congress: 1-4 October 1996, Roma (Italy)

Organised by the **Italian** Society AIRS (Associazione Italiana per la Ricerca Sui Sistemi) and ECONA (InterUniversity Center for Research on Cognitive Processing), with the support of the "La Sapienza" University.

# 4° Congress: 20-23 September 1999, Valencia (Spain)

Organised by the **Spanish** "Fundación Cinco Siglos" of the Valencia University, with the support of the Generality of Valencia, and of the European Union Research Committee.

# 5° Congress: 16-19 October 2002, Hersonissos, Creta (Greece)

Organised by the **Greek** Systems Science Association, with the help of the European Association for Family Therapy, and the support of the Local Authorities.

# 6° Congress: 19-22 September 2005, Paris (France)

Organised by the **French** Systems Science Association AFSCET, with the support of UNESCO, of the French Department of Research of DGA (French General Armament Direction), of the "Arts et Métiers" Foundation and of a French Company ESSILOR.

# 7° Congress: 19-22 December 2008, Lisboa (Portugal)

Organised by the **Portuguese** Systems Science Association: APOCOSIS (Associação Portuguesa de Complexidade Sistémica).

## Table 1. EUS congresses

The EUS Congresses (Table 1) were supported by the patronage of very high level Scientific Personalities, such as Stafford BEER<sup>6</sup> (UK) WOSC Wiener gold medal<sup>7</sup>, Umberto ECO<sup>8</sup> (Italy), Erwin LAZLO<sup>9</sup> (Italy) IASCYS Academician, founding member and President of the Club de Budapest, twice Nobel Peace Prize Nominations, Jean-Marie LEHN<sup>10</sup> Nobel Prize Laureate in Chemistry 1987 (France), Jacques LESOURNE<sup>11</sup> (France) the French Academy of Technologies, Edgar MORIN<sup>12</sup> (France) IASCYS Academician, Ilya PRIGOGINE<sup>13</sup> Nobel Prize Laureate in Chemistry 1977, President of the International Academy of Science (Belgium), Carlo RUBBIA<sup>14</sup> Nobel Prize Laureate in Physics 1984 (Italy), Herbert A. SIMON<sup>15</sup> Nobel Prize Laureate in Economics 1978 (USA), René THOM<sup>16</sup> Field Medal 1958, Académie des Sciences Paris (France), Francisco VARELA<sup>17</sup> (Chile), Heinz Von FOERSTER<sup>18</sup> (USA).

<sup>6 &</sup>lt;a href="https://en.wikipedia.org/wiki/Stafford">https://en.wikipedia.org/wiki/Stafford</a> Beer

<sup>7 &</sup>lt;a href="http://wosc.co/distinctions-and-awards/">http://wosc.co/distinctions-and-awards/</a>

<sup>8 &</sup>lt;a href="https://fr.wikipedia.org/wiki/Umberto\_Eco">https://fr.wikipedia.org/wiki/Umberto\_Eco</a>

<sup>9</sup> https://fr.wikipedia.org/wiki/Ervin László IASCYS Academician

<sup>10 &</sup>lt;a href="https://en.wikipedia.org/wiki/Jean-Marie\_Lehn">https://en.wikipedia.org/wiki/Jean-Marie\_Lehn</a>

<sup>11</sup> http://www.annales.org/archives/x/lesourne.html

<sup>12</sup> https://en.wikipedia.org/wiki/Edgar Morin IASCYS Academician

<sup>13</sup> https://en.wikipedia.org/wiki/Ilya Prigogine

<sup>14</sup> https://www.nobelprize.org/search/?s=rubbia

<sup>15</sup> https://en.wikipedia.org/wiki/Herbert A. Simon

<sup>16</sup> https://en.wikipedia.org/wiki/René Thom

<sup>17</sup> https://en.wikipedia.org/wiki/Francisco Varela

<sup>18</sup> https://en.wikipedia.org/wiki/Heinz\_von\_Foerster

n° 1 Approche systémique de la diversité.

Du savoir à la pratique-De la pratique au savoir.

http://aes.ues-eus.eu/aes2011/enteteAES2011.html

Proceedings of the 8th congress of the European Union for Systemics UES-EUS, Brussels, **Belgium**, Europe, 19-22 October **2011** 

Plenary Talk of Christian de DUVE, Nobel Prize Laureate in physiology or medicine 1974 n° 2 Systemics and Cybernetics: From the parts to the whole and reciprocally.

http://aes.ues-eus.eu/aes2012/enteteAES2012.html

Proceedings of the 1st African International Conference on Complex Systems (ICCS2012) organised by the Moroccan Complex Systems Society, Agadir, Morocco, West Africa, 5-6 November 2012

n° 3 The post-industrial societies dealing with complexity:

**Knowledge to manage the knowledge society** 

http://aes.ues-eus.eu/aes2013/enteteAES2013.html

Proceedings of the 1st Annual European Systemics Seminars of the European Union for Systemics UES-EUS, Charleroi, Belgium, Europe, 20 September 2013

n° 4 Globalization and Crisis: Systems Complexity and Governance

http://aes.ues-eus.eu/aes2014/enteteAES2014.html

Proceedings of the 9th congress of the European Union for Systemics UES-EUS and WOSC joined Congress, Valencia, **Spain**, Europe, 15-17 October **2014** 

n° 5 Systemic continuities and interactions between architecture and social systems:

Knowledge for the future of the knowledge society

http://aes.ues-eus.eu/aes2015/enteteAES2015.html

Proceedings of the 2nd European Systemics Seminars of the European Union for Systemics UES-EUS, F.R.S.-FNRS '*Architecture & complexité*' joined Seminar, Brussels, Belgium, Europe, 16 October 2015

n° 6 Democracy & Systemics.

Savoir gouverner et accepter d'être gouverné en démocratie.

Comment la pensée systémique peut-elle nous aider à agir ?

http://aes.ues-eus.eu/aes2016/enteteAES2016.html

Proceedings of the Symposium for the 10th anniversary of Systems & Organizations (S&O), UES-EUS and S&O joined Annual Seminar, 07-08 October 2016

n° 7 Thinking outside of the box! How does systemic thinking help creative, inventive and change processes?

http://aes.ues-eus.eu/aes2017/enteteAES2017.html

2017 Annual Seminar Proceeding

n° 8 A systemic vision of the crises: From optimization to change strategy?

http://aes.ues-eus.eu/aes2018/enteteAES2018.html

Proceedings of the 10th congress of the European Union for Systemics UES-EUS, Brussels, **Belgium**, Europe, 15-17 October **2018** 

n° 9 From resistance to resilience: Systems thinking about transitions.

http://aes.ues-eus.eu/aes2019/Acta-Europeana-Systemica-9.pdf

2019 Annual Seminar Proceedings

Table 2. The new UES-EUS on line review.

Acta Europeana Systemica (ISSN 2225-9627/eISSN 2225-9635)

http://aes.ues-eus.eu

Congresses and Seminars

## Conclusion

Since more than 30 years, the EUS encouraged and facilitated, through its member societies activities, and by all means, the dissemination of Systems Thinking to promote holistic behaviour, not only through publishing but also through training for students and professionals.

The presentations at the transdisciplinary congresses (Tables 1 & 2) and the corresponding published papers were often at the crossroad of Sciences and Humanities. Among the main themes discussed the keywords were: adaptation, autonomy, chaos, coherence, complexity, emergence, epistemology, self-organisation, self-reference. The fundamental concepts and methodologies were looking at formalisation, modelling, organisation either of general system or networks, hierarchy and systems dynamics. Theories and applications were developed in automatic technology and robotics, artificial intelligence and life. Practices and experiences were presented - in natural systems studies, at the crossroad of biology, medicine, ecology and ontology, - in technical, administrative and socio-economic systems, management and decision-making strategies, - in cognition, information, communication, education, natural language, psychology and family therapies.

Nowadays it is difficult to imagine that, *in 1977, for the first congress in Systems Thinking, in Versailles, France,* there was more than 800 attending systems science researchers<sup>19</sup> with talks from Heinz von Foerster (†), Ilya Prigogine (†), Michel Serres<sup>20</sup> (†), René Thom (†), Francisco Varela (†), Jean-Pierre Dupuy<sup>21</sup> and Edgar Morin, and already about **trans-disciplinarity**, systems dynamics and modelling.

#### References

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Andreewsky et al. (2005) *Mais la carte parfois transforme le territoire*. **MCX** Colloque de Cerisy 2005, In <u>Intelligence de la Complexité, Epistémologie et Pragmatique</u>. Ed de l'Aube, 2007, pp.175-181.

<u>http://afscet.asso.fr/</u> **AFSCET** Association Française de Science des Systèmes, ENSAM, 151 Bd de l'Hôpital, 75013 Paris, France

<a href="http://iascys.org/">http://iascys.org/</a> IASCYS the International Academy for Systems and Cybernetic Sciences <a href="http://www.afscet.asso.fr/ues.html">http://www.afscet.asso.fr/ues.html</a> EUS Union Européenne de Systémique, before 2011 <a href="https://www.ues-eus.eu/en/presentation/">https://www.ues-eus.eu/en/presentation/</a> UES-EUS after 2011

<u>http://www.res-systemica.org/</u> *Res-Systemica* Revue Française de Systémique fondée par Evelyne Andreewsky, ISSN 1762-5890

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<sup>19</sup> http://www.res-systemica.org/afscet/resSystemica/CongresSyst.html

<sup>20</sup> https://fr.wikipedia.org/wiki/Michel Serres , https://en.wikipedia.org/wiki/Michel Serres

<sup>21 &</sup>lt;a href="https://fr.wikipedia.org/wiki/Jean-Pierre Dupuy">https://fr.wikipedia.org/wiki/Jean-Pierre Dupuy</a> IASCYS Academician