



brightness²

ENSA



European Neutron Scattering Association

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Vice-Chair of ENSA
TU DELFT



European Neutron scattering community

<http://www.neutrons-ensa.eu/>

What is ENSA?

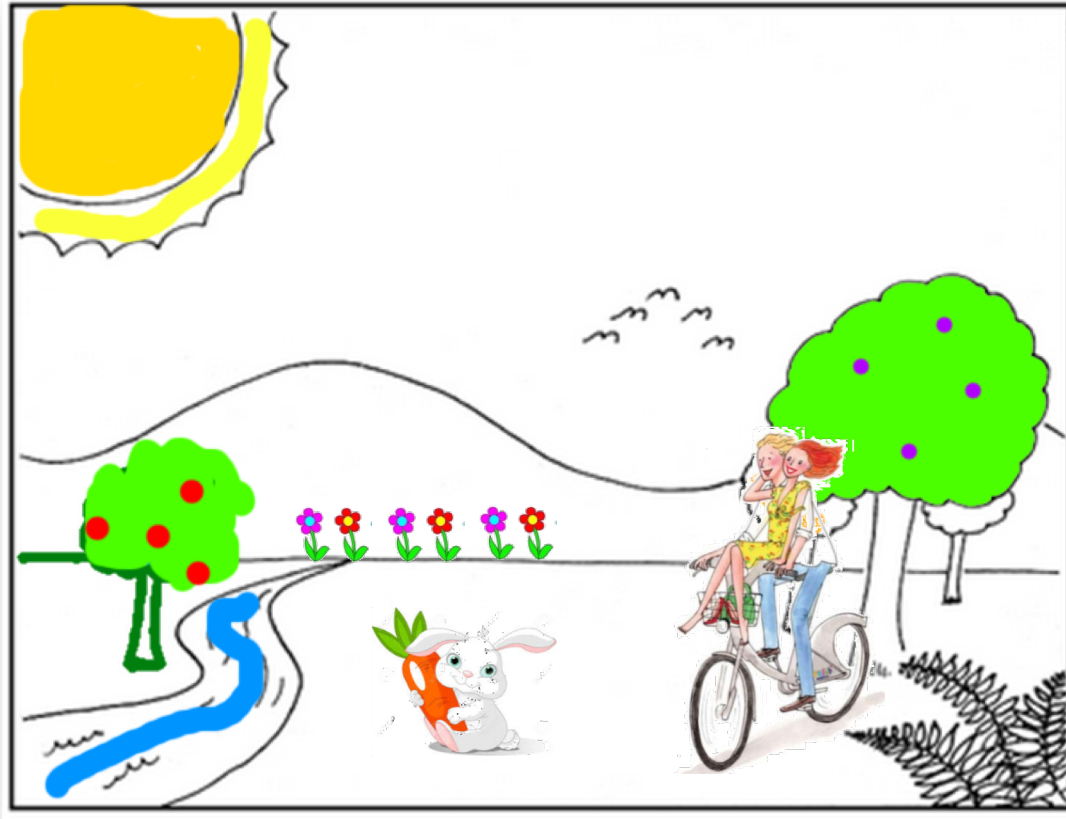
an association of the neutron scattering user community, academic and industrial, bringing together scientists from various universities, institutions and companies.

This community includes various types of users, from professional users to occasional ones; but also, it includes the various ways of exploiting a neutron beam for different applications and different sizes of infrastructures

This community contributes to define the scientific needs in terms of instruments performances, and availability according to strong scientific cases identified in each of the countries.

This community enhances the scientific excellence of the facilities, and contributes to their competitiveness

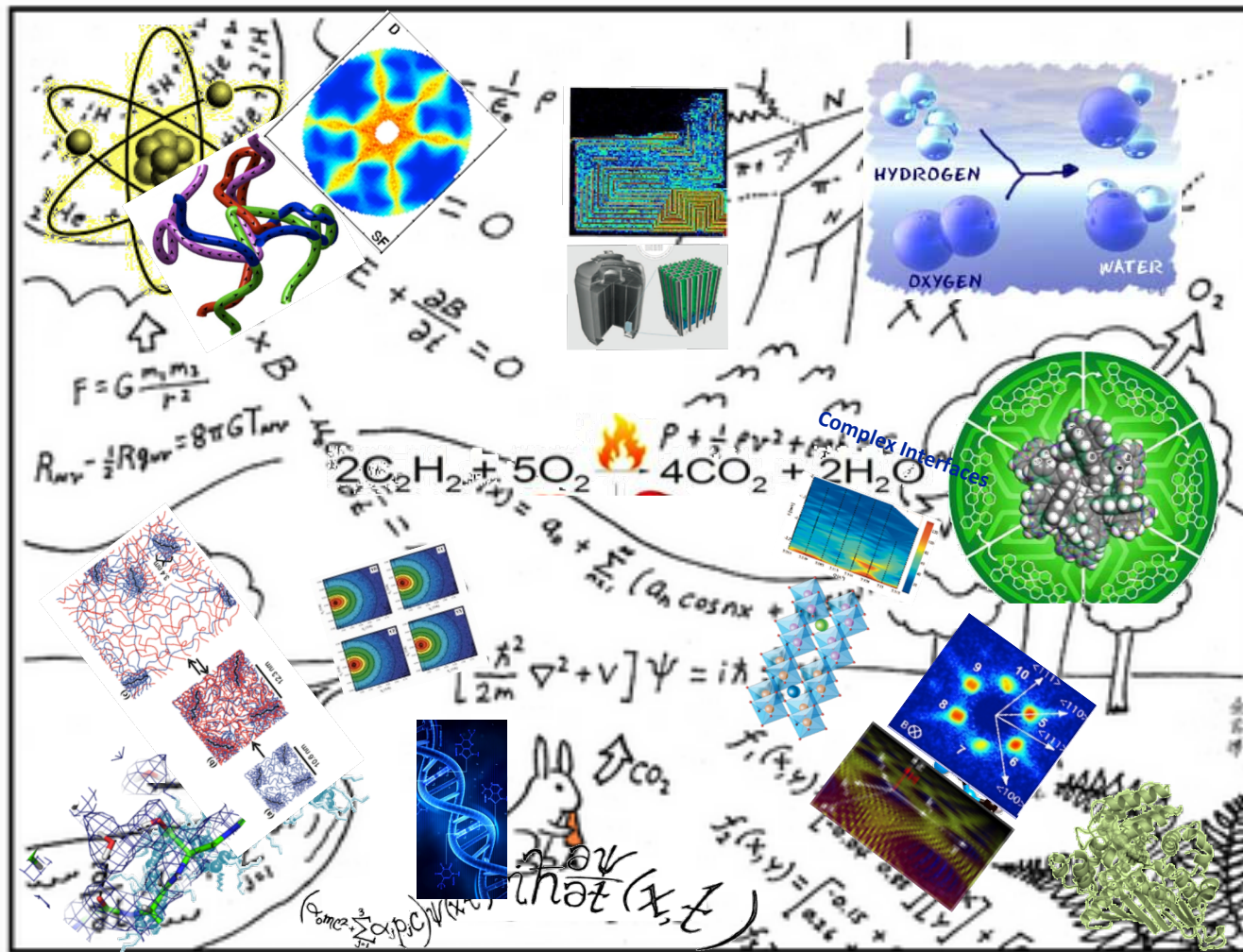
How do we see the world around us ?



How do ENSA scientists interpret it ?



How **ENSA SCIENTISTS** see the world





ENSA some key numbers

About 7000 scientists registered in the associations

- More than 8000 frequent users in Europe
- 1900 articles a year
- A direct link to universities and Laboratories wide range of disciplines physicists, chemists, biologists, and metallurgists, archeologists, geologists.... all societal challenges
- In charge of education and students (Master level)
- Connection with industries



Addressing society's grand challenges



Energy and IT

Health and life sciences

**Environment and Food
science**

Arts and Heritage

**Materials Sciences and
Industries**

Neutrons in the Universe

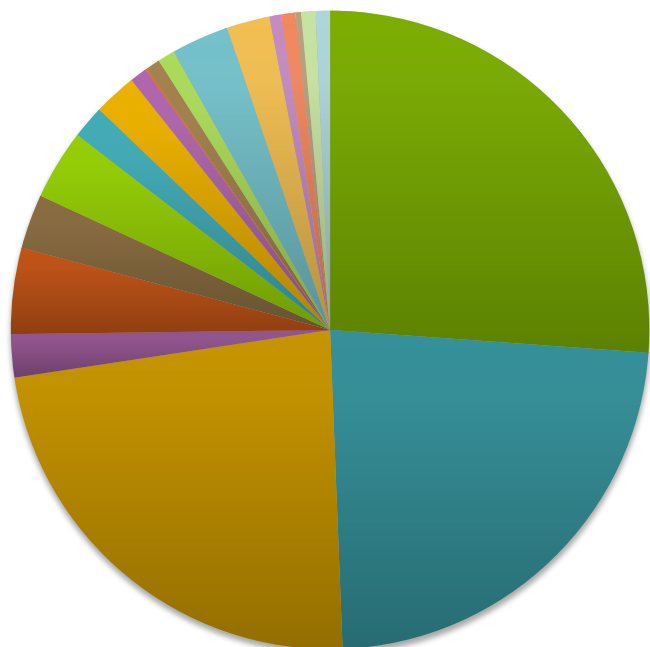


ENSA Brochure , regularly renewed



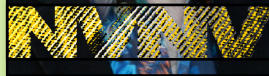
ENSA and EUROPE

National Societies with membership in ENSA

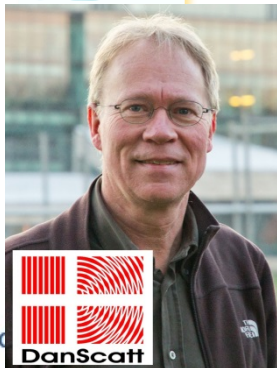


- | | | |
|---------|------------|---------|
| Germany | France | UK |
| Italy | Spain | Hungary |
| Russia | Danemark | Austria |
| Czech | Slovakia | Greece |
| Poland | Swiss | Sweden |
| Romania | Norway | Ireland |
| Belgium | Nederlands | |

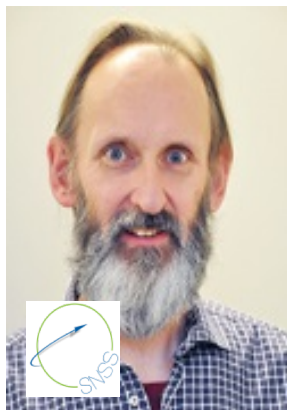
	delegate
Austria	H Abele
Germany	A. Schneidewind
France	N Malikova
Hungary	F Mezei
Spain	MT Fernandez-Diaz
Switzerland	H Rønnow
Norway	S.Deledda
Netherlands	L van Eijck
Russia	S Grigoriev
Czech Rep	P Mikula
Slovak Rep	P Mikula
Danemark	K Mortensen
Greece	Dina Mergia
Italy	Fabio Bruni
Romania	Ion Ionita
Poland	Wojciech Zajac
Sweden	Sten Eriksson
UK	Don Paul
Belgium	Kristian Temst
Ireland	Ant. Benedetto
observer	
Dubna	A. Belushkin
Baltic Rep, Portugal	



Società Italiana di Scienza dei Neutroni



POLSKIE TOWARZYSTWO NEUTRONOWE



ENSA and the world

Next NSSA, AONSA, ENSA meeting
In November 2019 in Taiwan



About 50% of the world production

Enhance international collaboration



Building Science Capacity in Africa via Crystallography ICSU



ICSU

International Council for Science



ENSA Awards

Walter Hälgl Prize :

ENSA awards the Walter Hälgl Prize biannually to a European scientist for outstanding, coherent work in neutron scattering with long-term impact on scientific and/or technical neutron scattering applications, a definition reflecting the professional achievements of the man who established the Prize.



Lewy Bertaut Prize

European Crystallographic Association (ECA)
and the European Neutron Scattering
Association (ENSA)

+



new ENSA prize 2019 :

Instrumentation and Innovation Award for a young scientist

Added value of associations on schools and conferences

publication of text books

PhD prize

annual Young Scientist Award.

Yearly workshop , Conferences biannual:

Conference and joined Conference with synchrotron

special session at the National Physical Society

Next European Conference on Neutron Scattering 2019



**European Conference
on Neutron Scattering
ECNS 2019**

July 1–5, 2019
St. Petersburg
RUSSIA

First Announcement



Lucky Europeans ! A variety of uses and offers

So far a successful cooperation
and combination of expertise



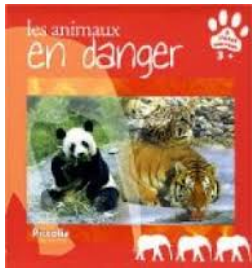
**Associations
20 countries**

**Network of
FACILITIES**

**European Union
Infrastructures
TNA**

**foreseen situation in
2020 more difficult**





THREAT



a very significant decline of neutron scattering capabilities in Europe

This presents a serious threat to the next generation ESS users

a schizophrenic situation : we develop the most powerful source and destroy its user basis



Landscape changed **but the community has changed even more !**

→ National & european calls, 1 month- 3 years contracts....; short term vision

F Mezei : “Politicization, Bureaucratization, Hollywoodization and Informatization”.
Management versus leadership

→ Broader community, new scientific domains, new definition of an experiment,
requirement of people making the interfaces

What help ENSA and the community can provide ?

- **Define some specific scientific cases ,**
assisting with the co-ordination of the development and construction
- **Better knowledge and definition of “our very diverse community,”**
disseminating to the wider community information
- **Identifying needs and interests, for the 20 years time frame**
- **Propose some specific actions : news, schools, ...**
Improve the interface facility/labs?
Coordinating teaching NS and training your students
supporting the opportunities for young scientists.
- **promoting channels of communication with industry.**
How industry associated in the associations, with users?
- **Promoting women in science**
- **Lobbying and communication with national and European entities**

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WP 2: A strategy to deliver neutrons for Europe and beyond

ESS, ILL, ENSA, STFC, TUM, FZJ, PSI, Wigner RCP, NCBJ, Necsca, iThemba LABS, TU Wien

Task 2.1: Developing a European neutron strategy in a global context

ESS, ILL, ENSA, STFC, TUM, FZJ, PSI, Wigner RCP, NCBJ, Necsca, iThemba LABS, TU Wien

Task 2.2: Assessing the needs of the European science community for new neutron-based methods

ENSA, Necsca, iThemba LABS

Task 2.3: Exploring and illustrating new ways of working for the most efficient usage of neutrons in engineering and life science

ESS, ILL, TUM, STFC, Necsca

*WP aims **to define the best way to provide neutron instrumentation, associated characterisation methods and analysis tools** in a strategic and coordinated fashion to the European user community and beyond.*

a timely opportunity to define **a new partnership between the users of the neutron facilities and stakeholders funding, operating and managing these infrastructures.** The neutron facilities and the European Neutron Scattering association (ENSA) will look at the best way to provide neutron instrumentation, associated characterisation methods and analysis tools in a strategic and coordinated fashion to the European user community and beyond. This will be done in close collaboration with representatives of neutron user



Wish List

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Promote multi- and **interdisciplinarity**, create networks, **integrate smaller groups**, with **Trans National Access** for the European user communities

Supporting associations and promoting gender policy

Establish the basis for a **pan-European network for education and training** of future generations of scientists.

The evolution of the European community is correlated to **a better geographical distribution of neutron sources**

by Integrating current small neutron sources

by conceiving and building new international network of accelerator based sources





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Welcome to St. Petersburg at the ECNS 2019!



**European Conference
on Neutron Scattering
ECNS 2019**

*July 1–5, 2019
St. Petersburg
RUSSIA*

First Announcement



**Thank you
for your attention**