



IUFRO TASK FORCE
ON EDUCATION
IN FOREST SCIENCES

Coordinator: prof. Piotr Paschalis-Jakubowicz
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A new IUFRO initiative to improve forest sciences study programmes: The task force EFS (Education in Forest Sciences)

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WHAT IS IUFRO ?

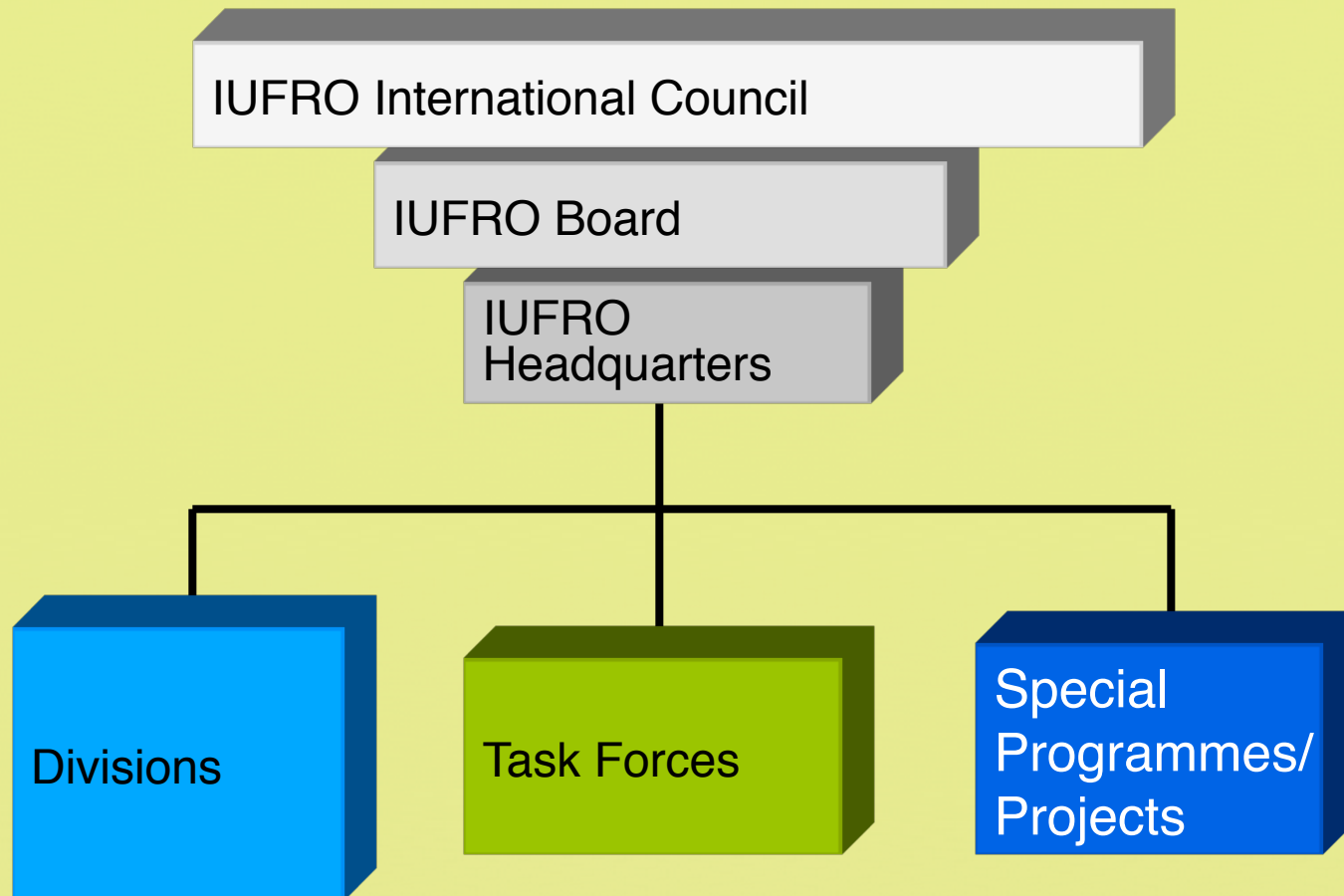
- IUFRO is the **global network** for forest science cooperation;
- IUFRO is the **only world-wide** international organization devoted to forest research;
- IUFRO unites more than **15,000 scientists** in almost **700 Member Organizations** in more than 110 countries;
- Founded in **1892**, IUFRO has a long history of international forest science cooperation.



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IUFRO STRUCTURE - OVERVIEW





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IUFRO STRUCTURE (2)

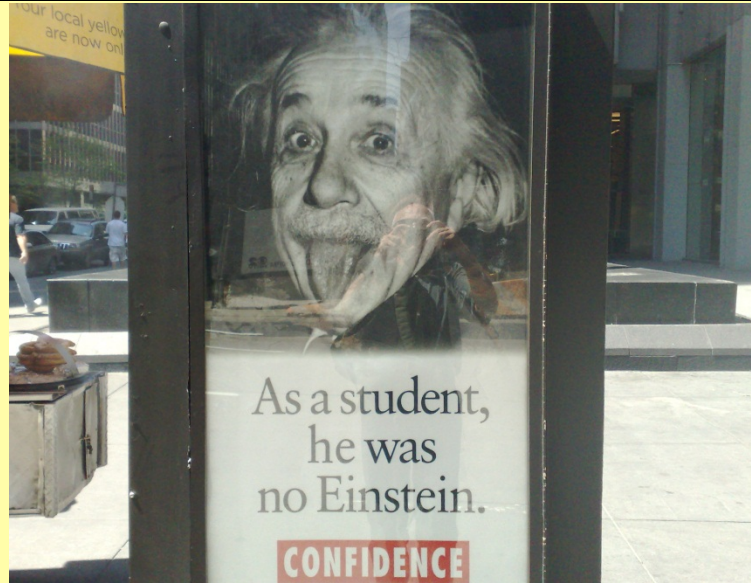
- **Task Forces** are established on a temporary basis for inter-disciplinary cooperation in inter-divisional forest research fields.

www.iufro.org



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The need to explore new fields of education stems not only from the requirement to find answers to the questions posed by our civilization,

but also from accumulated research knowledge and practical achievements of forestry and forest sciences that should be properly utilized.



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The system of higher education has been facing fundamental changes, triggered by globalization and global change, altering expectations of stakeholders and society from university graduates and novel insights of educational sciences:

– from teaching to learning



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We should also take into account that the competence profiles of forestry graduates do not always comply with the requirements posed by potential employer's, while emphasizing that the professional **attractiveness** of the forestry sector for graduates **is decreasing**.



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Sustainable Forest Management requires knowledge of the uncertainties and risks on a global scale not only identified as "risk management", but also of the consequences to forests and forestry caused, for example, by aging of populations in developed countries.



Consequently development of forest sciences curricula should move towards:

Focusing on generic and methodical competencies instead of contents and descriptive approaches, enabling graduates to tackle novel, complex problems;

Competencies to integrate and communicate knowledge across disciplinary borders and to analyze the existing interactions;

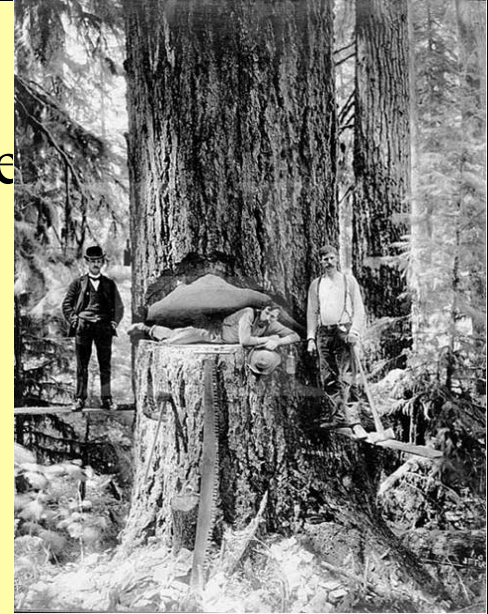
New learning units addressing challenges such as climate change, adaptive ecosystem management governance systems, gender issues, forests as source of energy, role of forests and forest products in rural development and poverty alleviation as well as the assessment of other environmental and social impacts.





The objective of the Task Force is an improved practice of Education in Forest Sciences worldwide.

TF therefore aims at contributing to development of standards of Education in Forest Sciences, which meet the requirements of today, using experiences and examples of good practice in the IUFRO community and cooperation with higher education experts.



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Activities of the TF in the attempt to reach this objective will be worked on in the course of the establishment of the TF and will include:



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- Survey of forest curricula ("state of practice") and a comprehensive analysis of challenges and opportunities facing Higher Education in Forest Sciences in different parts of the world.
- Development of a framework on required competences of graduates of education in forest sciences, to be characterized in terms of skill dimension, context, and level of mastery: focus group discussions on ELO
- IUFRO Learning Initiative (Summer Schools) to try and evaluate new methods of learning and teaching processes and also integrate students from different parts of the world under the IUFRO umbrella, jointly with IFSA. Development and testing assessment tools in cooperation with education specialists.



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Do course objectives and assessment match?

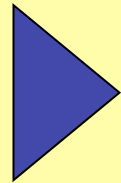
Expected learning outcomes (ELO) –
what students will know and be able to do as a
result of engaging in the learning process during
the course.

ELO represent statements of achievement
expressed from the learners' perspective:

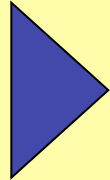
“at the end of the course learners will know ...
and be able to”



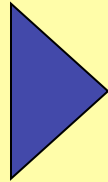
Focus group discussion



Forming a discussion group



Moderator and observer, recording



Summary – evaluation – www

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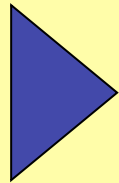
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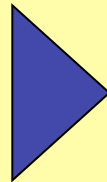
Three lead questions



What professional activity to prepare for?



Situation – competences now?
In Europe: Changes through Bologna?



Changes needed?
– role of mobility?



Table 1: EFS focus group discussions 2011

<i>conference</i>	<i>number of groups</i>	<i>number of participants</i>	<i>language / method of recording</i>
SILVA Network annual conference, St. Petersburg, Russia, September 2011	2	12/12	English (few native speakers)
IUFRO conference "Competence development for forestry", Freiburg, Germany, September 2011	2	9/10	English (some more native speakers)
RELAFOR session at Latin American Forest Congress; Lima, Peru, October 2011	1	ca. 50	Spanish (introduction in English, discussion with translation Spanish/English)



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EFS as IUFRO TF therefore aims at contributing to the development of standards of Education in Forest Sciences, which meet the requirements of today, using experiences and examples of good practice in the IUFRO community and cooperation with higher education specialists.

Achieving an adequate level of education is not just the develop of a good and innovative curriculum.

Learner orientation is essential. The outcomes of the learning and teaching process should be measurable.



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- **Seminars, workshops and other activities**

- **2011:** –review of the concept and methods of the IUFRO EFS Learning Initiative
- –first focus group discussions on ELO

- **2012:** –analysis of various curricula used in higher forest education

- –assessment of the outcomes of the first IUFRO EFS Learning Initiative, and further elaboration of methods

- **2013:** –formulation of principles of outcome and learner oriented curricula

- –curriculum assessment with participation of young teachers and employers in workshops

- **2014:** – final development and implementation of the principles and methods used in IUFRO EFS Learning Initiative

- **Annual conferences:**

- **2012:** – presentation and discussion on issues within TF scope in form of plenary sessions and poster presentations

- **2013:** – presentation and discussion on issues within TF scope in form of plenary sessions and poster presentations

- **2014:** – presentation and discussion of TF final findings and conclusions during IUFRO World Congress in Salt Lake City in form of plenary session



Members of the TF, now more than 40 people from all parts of the world represent different fields of knowledge of forest, both at university level education and the level of forestry experts and other scientific disciplines, including education experts.

Core group, of about 20 people, among others, Vice-rectors of universities, Deans of Forestry Faculties, Directors of Research Institutes, professors who work in various functions in the international educational networks as well as representatives of student organizations.

As the TF is working on a global scale, we seek close collaboration with other networks of education in forest sciences as SILVA Network, ANAFE, RELAFOR, IPFE, IFSA as well as other networks established in various countries (e.g. in Russia).



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