

CESAER

conference of european schools
for advanced engineering education
and research

CESAER Statement on the European Research Area

Presented on 20 June 2013

Accepted by the European Commissioner Maire Geoghegan-Quinn during the meeting with Stakeholder Organisations (SHO) on 17 July 2013

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Endorsements by partner organisations:

CLUSTER, Eurotech Universities, IDEA League, Nordic Five tech

CESAER Statement on the European Research Area

Presented to European Commissioner Máire Geoghegan-Quinn

Heverlee, 20 June 2013

CESAER

CESAER - the Conference of European Schools for Advanced Engineering Education and Research - is a not-for-profit international association of leading European universities of technology and engineering schools/faculties at comprehensive universities and university colleges¹. CESAER has a current membership of 55 institutions from 24 different countries (see ANNEX 1).

Maintaining and promoting the highest quality standards in knowledge creation and transfer CESAER stands for scientific excellence in engineering education and research, and the promotion of innovation through close cooperation with the private and the public sector in order to ensure the application of cutting-edge knowledge in industry and society. CESAER and its member institutions will contribute substantially to making the knowledge triangle² a reality in HORIZON 2020.

19 CESAER member institutions are among the top 50 higher education institutions participating in FP7 presenting 38% of the top 50 HEIs and 45% of the top 20 HEIs in FP7³ (see ANNEX 2). Thus, CESAER members form the strongest group among other European university associations.

Associations of universities of technology speaking with one voice on ERA

Since its inception in 1990, some of CESAER's member institutions have formed separate transborder associations - CLUSTER, EuroTech Universities, IDEA League and Nordic Five Tech (see ANNEX 3) - that are committed to long-term close cooperation as well as targeted initiatives such as e.g. human resource development for research, joint programmes and joint infrastructures.

This Statement is also endorsed by these other associations. They will carry out specific initiatives supporting the realisation of the ERA and sometimes also complement the implementation of the actions set out here. Their statements on ERA are presented on the same date as that of CESAER and are integral parts of the latter (see Attachments 1 to 4).

¹ In the following, the term "university of technology" is used covering all these types of institutions.

² See the presentations of CESAER members at the CESAER-DG EAC "Knowledge Triangle" Workshop, 8 March 2012

<http://www.cesaer.org/en/news-items/event/presentations-from-the-knowledge-triangle-workshop/>

³ European Commission: Fifth FP7 Monitoring Report 2011. Brussels, 29 August 2012, p. 12

In addition, the five associations decided to speak with one voice in matters of shared interest. To this end, they agreed that CESAER acts as umbrella organisation and interlocutor to the Commission when presenting jointly agreed common positions regarding EU education, research and innovation policies. On a case by case basis, CESAER and the other associations will join forces in contributing to EU initiatives with the present support of the ERA initiative as a first example. All associations will continue presenting specific individual initiatives to the Commission.

CESAER and ERA

CESAER has provided substantive inputs to past consultations regarding EU research, innovation and education issues (see ANNEX 4).

CESAER is committed towards contributing to the completion of the European Research Area (ERA) actively supporting initiatives along the lines presented in the ERA Communication from 17 July 2012. When starting and implementing its activities CESAER respects and capitalizes on the diversity of the different national approaches across Europe as well as the autonomy of member institutions.

CESAER subscribes to the MoU signed by the Commission and EUA in July 2012 and offers to join forces with the European Commission and with other stakeholders in the ERA process. The added value of CESAER contributing to the implementation European policies is that is a coherent grouping of universities of technology that presents critical mass for providing targeted promotion and stimulation of EU initiatives and achieving impact.

CESAER is a membership-based organisation for which this Statement constitutes an intentional agreement which has no legal basis under Belgian law. CESAER member institutions operate within national legal and administrative frameworks that define their autonomy and freedom of action.

In its meeting in Valencia on 1 March 2013, the CESAER Board of Directors has authorised the CESAER President, Professor Marco Gilli, to sign a Memorandum of Understanding or a Unilateral Statement on behalf of all CESAER member institutions.

CESAER actions towards ERA

CESAER will take targeted measures in order to encourage and support its members to start and carry out the actions that are set out below, as far as allowed by national legislation, and respecting the institutional autonomy and the resources of its member institutions.

Researchers and research careers

1. Join a CESAER support action promoting the application of the four step approach for implementing institutional human resource strategies for their researchers in line with the basic principles of the EC recommendation on the European Charter for Researchers and a Code of

Conduct for the Recruitment of Researchers⁴ and obtaining the EU Human Resource Excellence in Research logo⁵. This activity will build on the work of the CESAER Task Force Human Resources and the participation of CESAER in the 4th Cohort of the HRS4R Group.

2. Participate in experience sharing and mutual learning between CESAER member institutions that signed the Charter and Code and other CESAER member institutions in order to promote the implementation of the Charter and Code principles among more CESAER member institutions.
3. Start or continue to fill vacancies for first-stage, recognised, established, and leading researchers according to open, transparent and merit-based recruitment procedures, in line with the basic principles of the EC Recommendation on the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers. More CESAER member institutions advertising such vacancies on the EURAXESS Jobs portal will be a concrete result of this action.
4. Identify and analyse barriers, experienced by CESEAR members, for implementing ERA related activities that are stemming from national rules, regulations or practices and prepare an overview of the findings. Where appropriate, approach government authorities and/or research councils in a concerted initiative and request appropriate action towards developing more favourable frameworks at member state level contributing to the completion of ERA.
5. Develop and start, or continue and share implementation experiences with institutional gender strategies and Gender Equality Plans encompassing e.g. commitments from the CESAER member institutions' leadership, promoting the appropriate mix of gender-specific career development measures, or by ensuring monitoring of the implementation of Gender Equality Plans through the appropriate internal procedures.
6. Develop and start, or continue to provide structured programmes for doctoral training in line with the basic EU Principles for Innovative Doctoral Training⁶. These actions are underpinned by the CESAER document "Corner Stones for a Doctorate in Engineering"⁷.
7. Foster education and training in complementary skills especially in entrepreneurship in the knowledge triangle in order to promote the development of a new generation of engineering innovators and entrepreneurs. This is already high on the agenda of member institutions of CESAER⁸ and the other associations the individual member institutions.

⁴ See <http://ec.europa.eu/euraxess/index.cfm/rights>

⁵ See <http://ec.europa.eu/euraxess/index.cfm/rights/strategy4Researcher>

⁶ http://ec.europa.eu/euraxess/pdf/research_policies/Principles_for_Innovative_Doctoral_Training.pdf

⁷ See: http://www.cesaer.org/content/assets/docs/Corner_Stones_for_a_Doctorate_in_Engineering.pdf

⁸ See e.g. the 2013 CESAER Seminar will be devoted to the topic "Education and training for entrepreneurship", 17 October 2013, RWTH Aachen University.

8. Explore the possibility and feasibility of joining a Pan-European Supplementary Pension Fund for Researchers⁹, and support the on-going discussions on the portability of social security rights. CESAER is actively cooperating with and supporting DG RTD, Unit B2 on this issue.

Knowledge transfer and open access

9. Develop and further enhance as well as share, best practice in the areas of institutional research strategies and management as well as research support and knowledge transfer activities including collaboration with external partners based on common strategic research agendas. These actions should reflect the “open innovation” environment and build upon a wider use and application of the “Responsible Partnering Guidelines”¹⁰.
10. Explore, develop and start, or continue to implement comprehensive principles, standards and procedures for open access to publications and research data emanating from publicly-funded research, and participate in a new CESAER Task Force on Open Science that is being established. This Task Force will prepare a position paper on Open Access.

Cross border cooperation

11. Continue and enhance taking active roles in transnational and cross-sectoral multi-disciplinary partnership projects and initiatives¹¹ addressing societal challenges and enhancing competitiveness and work with national authorities and funding councils and agencies shaping ERA initiatives such as Joint Programming Initiatives possibly based on a CESAER-wide policy and approach contributing to the optimization of user-friendly implementation modalities
12. Explore possibilities of developing, in a cost-efficient way, research cooperation with universities ("twinning") and/or regions ("teaming") in other EU Member and Associated States, building on existing experience and taking advantage of research and innovation strategies for smart specialisation. With the help of Commission services CESAER is closely monitoring its member institutions' participation and their collaborative links in FP7 as a basis for strengthening the collaboration with high-quality partners from more remote or peripheral regions and thus widening FP7 partnerships and institutional linkages in ERA.

⁹ See:

<http://i3s.ec.europa.eu/commitment/8.html;i3sid=B23SQs5CYf4kZdNyy6jr3Jbv7ph2qHDycw8bZfYGcqXs7GMkhnLG!855751261>

¹⁰ Joining Forces in a world of Open Innovation. GUIDELINES for Collaborative Research and knowledge transfer between science and industry. EIRMA, EUA, EARTO, ProTon, October 2009

¹¹ European Commission: Partnering in Research and Innovation. COM(2011) 572 final, Brussels, 21.9.2011

CESAER working with the European Commission

CESAER is open for working closely with the European Commission and the other stakeholder organisations exchanging information on progress and experiences of the ERA related initiatives e.g. in the ERA Stakeholder Forum. CESAER will welcome the support of the European Commission when implementing the above activities and, in addition, is looking forward for working towards signing an ERA Memorandum of Understanding in the future to further develop and formalise the commitments of CESAER and of the European Commission.



Marco Gilli

President, CESAER

Annexes:

1. CESAER member institutions
2. Overview: Engineering networks
3. Table: University networks among top 50 HES in FP7
4. List of CESAER Position Papers

Enclosures: Endorsement letters/statements

1. CLUSTER Network
2. EuroTech Universities Alliance
3. IDEA League
4. Nordic 5 Tech

CC:

- For CLUSTER: Prof. Eberhard Umbach and Prof. Jürgen Becker
- For EuroTech Universities: Prof. Aarnout Brombacher and Dr. Andrew Sors
- For IDEA League: Prof. Ralph Eichler and Dr. Ulla Bidian
- For Nordic Five Tech (NST): Prof. Tuula Teeri and Prof. Mauri Airila

CESAER Member Institutions:

Austria

Technische Universität Wien

Belgium

Universiteit Gent, Faculteit Ingenieurswetenschappen
Katholieke Universiteit Leuven, Faculteit
Ingenieurswetenschappen
Université Catholique de Louvain, Faculté des
Sciences Appliquées

Czech Republic

Brno University of Technology
Czech Technical University in Prague

Denmark

Aalborg University, Faculty of Engineering and
Science
Technical University of Denmark

Estonia

Tallinn University of Technology

Finland

Aalto University

France

Ecole Centrale Paris
Institut National Polytechnique de Grenoble
Institut National des Sciences Appliquées de Lyon
ParisTech
GEA - Groupe des Ecoles Aéronautiques Françaises
Institut National des Sciences Appliquées de Toulouse
SUPELEC - Ecole Supérieure d'Electricité

Germany

Rheinisch-Westfälische Technische Hochschule
Technische Universität Berlin
Technische Universität Carolo-Wilhelmina zu
Braunschweig
Technische Universität Darmstadt
Technische Universität Dresden
Technische Universität Hamburg-Harburg
Gottfried Wilhelm Leibniz Universität Hannover
Technische Universität Ilmenau
Karlsruhe Institute of Technology
Technische Universität München

Greece

National Technical University of Athens
Technical University of Crete
Aristotle University of Thessaloniki, School of
Engineering

Hungary

Budapest University of Technology and Economics

Ireland

University College Dublin

Israel

*Technion, Israel Institute of Technology (associate
member)*

Italy

Politecnico di Milano
Politecnico di Torino

Lithuania

Kaunas University of Technology

Netherlands

Technische Universiteit Delft
Technische Universiteit Eindhoven
Universiteit Twente

Norway

The Norwegian University of Science and Technology

Poland

Politechnika Poznanska
Warsaw University of Technology

Portugal

Instituto Superior Técnico, Lisbon
Universidade do Porto, Faculty of Engineering (FEUP)

Romania

Universitatea Politehnica Bucuresti

Russia

Tomsk Polytechnic University

Spain

Universitat Politècnica de Catalunya
Universidad Politécnica de Madrid
Universidad Politécnica de Valencia

Sweden

Chalmers University of Technology
Lund University, Faculty of Engineering LTH
The Royal Institute of Technology (KTH)

Switzerland

Ecole Polytechnique Fédérale de Lausanne
Eidgenössische Technische Hochschule Zürich

Turkey

Istanbul Technical University

Number	HES Rank 2011	Rank total 2011	Institution Name	Country	Participations 2007-2011	Networks and alliances of research oriented universities									
						CESAER	LERU	CLUSTER	COIMBRA Group	IDEA League	EuroTech Universities	Nordic Five Tech	Santander Group	Other	
1	1	3	UNIVERSITY OF CAMBRIDGE	UK	446		X		X						
2	2	6	UNIVERSITY OF OXFORD	UK	384		X								
3	3	7	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK	377		X								
4	4	8	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH	349	X				X					
5	6	10	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	329	X	X	X							
6	5	9	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH	329	X		X			X				
7	7	13	UNIVERSITY COLLEGE LONDON	UK	313										
8	8	18	KØBENHAVNS UNIVERSITET	DK	237										X
9	9	19	DANMARKS TEKNISKE UNIVERSITET	DK	235	X					X	X			
10	10	20	UNIVERSITY OF EDINBURGH	UK	234		X		X						
11	11	21	KAROLINSKA INSTITUTET	SE	214										X
12	12	23	TECHNISCHE UNIVERSITEIT DELFT	NL	212	X				X					
13	13	24	LUNDS UNIVERSITET	SE	210	X	X								
14	14	25	UNIVERSITY OF MANCHESTER	UK	207										X
15	15	26	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE	198	X		X							
16	16	27	KUNGLIGA TEKNISKA HOEGSKOLAN	SE	195	X		X				X			
17	17	28	UNIVERSITY OF SOUTHAMPTON	UK	182										X
18	18	29	WAGENINGEN UNIVERSITEIT	NL	178										X
19	19	30	VERENIGING VU-WINDESHEIM	NL	173										X
20	20	31	UNIVERSITEIT GENT	BE	171	X							X		
21	21	33	UNIVERSITY OF NOTTINGHAM	UK	170										X
22	22	34	UNIVERSITY OF SHEFFIELD	UK	168										X
23	23	35	UNIVERSITY OF LEEDS	UK	165										X
24	23	37	UNIVERSIDAD POLITECNICA DE MADRID	ES	165	X									
25	24	40	AARHUS UNIVERSITET	DK	164				X						
26	25	41	UNIVERSITEIT UTRECHT	NL	162		X								
27	26	42	CHALMERS TEKNISKA HOEGSKOLA	SE	158	X						X			
28	27	43	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT	157				X						
29	28	44	HELSINGIN YLIOPISTO	FI	155										X
30	29	45	UNIVERSITY OF BRISTOL	UK	154				X						
31	30	46	UNIVERSITAET STUTTGART	DE	153										
32	31	49	HEBREW UNIVERSITY OF JERUSALEM	IL	150										
33	31	52	UNIVERSITY OF NEWCASTLE UPON TYNE	UK	150										
34	31	47	STICHTING KATHOLIEKE UNIVERSITEIT	NL	150										X
35	32	53	UNIVERSITAET ZUERICH	CH	148		X								
36	33	54	TECHNISCHE UNIVERSITAET MUENCHEN	DE	147	X					X				
37	34	56	UNIVERSITE DE GENEVE	CH	146		X								
38	35	58	KING'S COLLEGE LONDON	UK	145										X
39	36	61	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE	144	X				X					
40	36	60	UPPSALA UNIVERSITET	SE	144										X
41	37	64	POLITECNICO DI MILANO	IT	143	X									
42	37	62	UNIVERSITY OF BIRMINGHAM	UK	143										X
43	38	67	TECHNISCHE UNIVERSITAET WIEN	AT	139	X									
44	39	68	TECHNISCHE UNIVERSITAET DRESDEN	DE	137	X									
45	40	69	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT	136									X	
46	41	71	TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY	IL	133	X									
47	42	72	WEIZMANN INSTITUTE OF SCIENCE	IL	132										
48	43	73	TEL AVIV UNIVERSITY	IL	131										
49	44	74	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL	128	X		X			X			X	
50	45	76	TECHNISCHE UNIVERSITAT BERLIN	DE	127	X									
Number of institutions among top 50						19	9	5	5	3	4	3	3	14	
% of institutions among top 50						38,00	18,00	10,00	10,00	6,00	8,00	6,00	6,00	28,00	
Number of institutions among top 20						9	6	4	2	2	2	2	1	6	
% of institutions among top 20						45,00	30,00	20,00	10,00	10,00	10,00	10,00	5,00	30,00	
Total number of participations					9.617	2.939*	2.438	1.179	1.155	1.082	839	588	435	2.431	

* The number of participations of the data of KU Leuven and the Universities of Lund and Gent where only the Faculties of Engineering are CESAER members. Participation numbers of these faculties were not available.

	Country	CESAER Member institutions (55 - status 01.01.2013)	CLUSTER	IDEA League	Nordic Five Tech	Euro Tech Universities
1	Austria	Technische Universität Wien				
2	Belgium	Universiteit Gent, Faculteit Ingenieurswetenschappen				
3		Katholieke Universiteit Leuven, Faculteit Ingenieurswetenschappen	x			
4		Université Catholique de Louvain, Ecole Polytechnique	x			
5	Czech Republic	Brno University of Technology				
6		Czech Technical University in Prague				
7	Denmark	Aalborg University, Faculty of Engineering and Science				
8		Technical University of Denmark			x	x
9	Estonia	Tallinn University of Technology				
10	Finland	Aalto University	x		x	
11	France	Ecole Centrale Paris				
12		Institut National Polytechnique de Grenoble	x			
13		Institut National des Sciences Appliquées de Lyon				
14		ParisTech		x		
15		GEA - Groupe des Ecoles Aéronautiques Françaises				
16		Institut National des Sciences Appliquées de Toulouse				
17		SUPELEC - Ecole Supérieure d'Electricité				
18	Germany	Rheinisch-Westfälische Technische Hochschule		x		
19		Technische Universität Berlin				
20		Technische Universität Carolo-Wilhelmina zu Braunschweig				
21		Technische Universität Darmstadt	x			
22		Technische Universität Dresden				
23		Technische Universität Hamburg-Harburg				
24		Gottfried Wilhelm Leibniz Universität Hannover				
25		Technische Universität Ilmenau				
26		Karlsruhe Institute of Technology				
27		Technische Universität München				x
28	Greece	National Technical University of Athens				
29		Technical University of Crete				
30		Aristotle University of Thessaloniki, School of Engineering				
31	Hungary	Budapest University of Technology and Economics				
32	Ireland	University College Dublin				
33	Israel	<i>Technion, Israel Institute of Technology (associate member)</i>				
34	Italy	Politecnico di Milano				
35		Politecnico di Torino	x			
36	Lithuania	Kaunas University of Technology				
37	Netherlands	Technische Universiteit Delft		x		
38		Technische Universiteit Eindhoven	x			x
39		Universiteit Twente				
40	Norway	The Norwegian University of Science and Technology			x	
41	Poland	Politechnika Poznańska				
42		Warsaw University of Technology				
43	Portugal	Instituto Superior Técnico, Lisbon	x			
44		Universidade do Porto, Faculty of Engineering (FEUP)				
45	Romania	Universitatea Politehnica Bucuresti				
46	Russia	Tomsk Polytechnic University				
47	Spain	Universitat Politècnica de Catalunya	x			
48		Universidad Politécnica de Madrid				
49		Universidad Politécnica de Valencia				
50	Sweden	Chalmers University of Technology			x	
51		Lund University, Faculty of Engineering LTH				
52		The Royal Institute of Technology (KTH)	x		x	
53	Switzerland	Ecole Polytechnique Fédérale de Lausanne	x			x
54		Eidgenössische Technische Hochschule Zürich		x		
55	Turkey	Istanbul Technical University				

CESAER position papers in the areas of research and innovation and higher education

- Erasmus for All: The position of CESAER, June 2012
- CESAER position towards the Commission proposal for HORIZON 2020 The Framework Programme for Research and Innovation (2014 – 2020), February 2012
- CESAER Response to the Public Consultation on the ERA Framework: Areas of untapped potential for the development of the European Research Area, November 2011
- CESAER Response to Open Public Consultation on the European Institute for Innovation and Technology (EIT), June 2011
- CESAER Response consultation about the Green Paper on a common strategic framework for EU research and innovation funding, May 2011

President
Prof. Dr. Eberhard Umbach

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Date: June 12, 2013

CLUSTER endorsement letter to the CESAER Statement on the European Research Area

CLUSTER (Consortium Linking Universities of Science and Technology for Education and Research), founded in February 1990, is a consortium of 12 elite European Universities in Science and Engineering (and architecture) with associate members from around the world. During the last 23 years, the CLUSTER Consortium evolved from being focussed only on Engineering Education to be, nowadays, acting on the so called knowledge triangle comprising education, research and innovation.

In a world facing unprecedented challenges, engineering, science and technology play central roles. The wellbeing of our society depends on our answers to such challenges, that cannot be found by a single nation or engineering discipline. Instead, they call for truly international, multi-disciplinary collaboration and a new forward-looking mind set. It is thus largely in our hands to breed a new generation of engineers with leadership and entrepreneurial skills. CLUSTER is an active platform in the promotion and creation of frameworks aiming to tackle these societal issues.

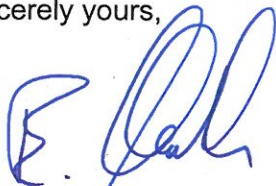
Europe hosts many excellent institutions in science and technology. Still, Europe is also lacking critical mass in comparison with the leading institutions of the US. Integrating different centres of excellence in Europe in key areas of Science and Technology, with a strong potential for future growth, is indeed a challenge for Europe.

CLUSTER is a central player in the development of Knowledge & Innovation Communities (KIC) in Europe. Together, the network aims to enhance cooperation among the members to promote exchange, cooperation and interaction between students, faculty and administrative staff. By this CLUSTER provides a strategic platform for joint programmes within education, research and innovation. It develops interaction, cooperation and joint programmes with its associate members and builds partnerships with major European enterprises.

CLUSTER identifies the need of strengthening the position of European Technical Universities within the European Research Area (ERA) as an essential prerequisite for the reinforcement of ERA. Within this context, it supports the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, as they provide highly relevant contributions to the priorities outlined in the Commission Communication on ERA bringing relevant added value to existing stakeholder commitments.

Therefore, CLUSTER fully endorses CESAER's Unilateral Statement on ERA and its implementation by the CESAER President.

Sincerely yours,



Eberhard Umbach
President of KIT and CLUSTER President

Mr. Robert-Jan SMITS
Director-General
DG Research & Innovation
1049 Brussels

Brussels, 20.06.2013

Dear Director-General,
Dear Mr. Smits,

I am writing to you in my capacity as Chair of the EuroTech Universities Alliance Governing Board.

EuroTech is a strategic partnership of four leading Universities of Science and Technology in Europe: Danmarks Tekniske Universitet (DTU), Ecole Polytechnique Fédérale de Lausanne (EPFL), Technische Universiteit Eindhoven (TU/e) and Technische Universität München (TUM). The mission of EuroTech is to advance areas of common interest, including research into the grand societal challenges such as energy, climate, or economic growth. We recognize the importance of strengthening the European Research Area (ERA) and are convinced that the Universities of Science and Technology will play a particularly important role in relation to the aims of ERA.

The EuroTech Universities are all members of the Conference of European Schools for Advanced Engineering Education and Research (CESAER). EuroTech believes that the "CESAER actions towards ERA", specified in the CESAER Statement, offers crucial and indispensable contributions to the priorities outlined in the European Commission Communication on ERA (17.07.2012) and that these actions will add to already existing commitments on the part of other key ERA stakeholders. Therefore, EuroTech enthusiastically endorses the above mentioned CESAER actions and to confirm its intention to facilitate their implementation at the level of its members as well as by the Alliance as a whole.

The EuroTech Universities' own Statement on ERA, entitled "ERA in action", takes the "CESAER actions towards ERA" as its point of reference. The Alliance's own statement contains ERA related commitments which are consistent with the capabilities as well as the limitations of a small, in depth inter-institutional strategic partnership. Thus, "ERA in action" contributes and adds value to the platform of "technical universities associations speaking with one voice on ERA". The membership of this platform consists of the major associations of TU's in Europe, namely CLUSTER; IDEA League; Nordic 5 Tech and EuroTech Universities Alliance with CESAER providing the overall "umbrella."

Thank you for your attention.

Kind regards



Prof. Dr. Ir. Aarnout Brombacher
Chair of the EuroTech Universities Alliance Governing Board
Vice-rector for international relations, Technische Universiteit Eindhoven – TU/e

EuroTech Universities Alliance – ERA in action

INTRODUCTORY REMARKS

1. The EuroTech Universities Alliance is a strategic partnership of four leading universities of science, technology and engineering, namely:
 - Technical University of Denmark
 - Ecole Polytechnique Fédérale de Lausanne
 - Eindhoven University of Technology
 - Technische Universität München
2. The Alliance’s mission is to develop technical solutions which address grand societal challenges.
3. As members of the European University Association (EUA), the EuroTech Universities are already engaged in the implementation of the Memorandum of Understanding (MoU) between the EUA and the European Commission, signed on 17 July 2012. In their capacity as members of the Conference of European Schools for Advanced Engineering Education and Research (CESAER), the EuroTech Universities **fully endorse** the statement sent by the President of CESAER to the Director- General of DG Research and Innovation on March 2013.
4. The EuroTech Universities recognize that the structuring of the ERA will not be achieved through a “one size fits all” approach and cannot proceed as a single process. These simultaneous, multi-level, multi speed structuring processes also provide the rationale for member institutions of more thematically focused university associations, such as LERU and CESAER, undertaking ERA related commitments which are additional to commitments they have made as members of EUA.
5. Durable, transnational, inter-university strategic partnerships, such as the EuroTech Universities Alliance are only practicable across a relatively small number of institutions. These types of partnerships are complement and add value to the qualitatively different cooperation among members of larger networks.
6. The EuroTech Universities are determined that their strengthening partnership within the Alliance is used to promote cooperation with other institutions, stakeholder organizations and with societal actors.

ACTIONS BY ALL EUROTECH UNIVERSITIES AND BY THE EUROTECH UNIVERSITIES ALLIANCE IN RELATION TO THE REINFORCEMENT OF THE EUROPEAN RESEARCH AREA

Within each of its four member institutions and/or at the level of the Alliance as a whole, the EuroTech Universities hereby state their voluntary intent to carry out the actions set out below with a view to achieving measurable progress by end of 2014. Such progress to be monitored by the Alliance's Governing Board and published on the Alliance's website.

POST GRADUATE RECRUITMENT, TRAINING AND RESEARCH

The EuroTech Universities' excellence in research and education combined with their long-standing expertise in knowledge transfer ensure that their PhDs involve a thorough training in research accompanied by an appropriate orientation to industry's needs. The first Alliance level joint doctoral activities are underway.

The **EuroTech Universities** will actively promote:

- Open recruitment / selection process of doctoral candidates, systematically sharing and jointly advertizing open positions for PhD-candidates;
- Systematic sharing of information on open positions and publishing on all four partners' websites.

The **Alliance** is engaged in building shared educational and research platforms at the post graduate levels. It is committed to making measurable progress in relation to the following:

- Creation of a joint database on PhD courses;
- Cooperation and participation in Masters programmes on innovation, entrepreneurship and technology management;
- Joint doctoral education, including exchange schemes for PhD and PDEng students, and joint summer schools;
- Shared access to and creation of joint transferable skills courses (such as entrepreneurship, ethics, communication and industrial design) with a view to enhancing mobility between disciplines, between academy & industry and across borders;
- Depending on progress on above, development of a portfolio of interdisciplinary doctoral courses, taught by faculty across the members of the Alliance.

RESEARCH ATTRACTIVENESS, RESEARCH CAREERS

The EuroTech Universities are fully engaged in the continuing development, application, evaluation and exchanges of best practices in relation to attracting excellent researchers - especially but not exclusively the most promising young talent. Within this overall context, the Alliance has given careful consideration to the detailed contents of “Invitation to research stakeholders” in the ERA Communication (Section 2.3), under the heading “An open labour market for researchers.”

Based on these considerations the **EuroTech Universities**, individually and the Alliance as a whole, commit themselves to make measurable progress in relation to the following points of the ERA Communication:

- Use of open, transparent and merit based procedures for filling vacancies as well as exchanging best practices in recruitment and retention of top talent in universities of science & technology, including through family-friendly recruitment approaches;
- Encourage debate on career development in universities. The first contribution to this debate will be a high-level public event on Tenure Track will take place on 10 June 2013 in Brussels.
- To the extent appropriate and practicable, make full use of the instruments offered by the European Commission, such as advertising all researcher vacancies on EURAXESS in line with its common profiles from January 2014 onwards and exploring the use of HR Excellence in Research logo and the signing of the European Charter and Code of Conduct for Researchers;
- Promote mobility and exchange of academic and support staff across member institutions;
- Establish a joint network of young academic professionals (professors, postdocs e.g. “EuroTech Universities Academy of Young Professors”), aimed at creating linkages between researchers strengthening their professional skills, including through mentoring schemes.

ACADEMIA-INDUSTRY COOPERATION AND KNOWLEDGE TRANSFER

The EuroTech Universities are among the acknowledged leaders in various aspects of academia-industry cooperation, mobility and knowledge transfer. Based on their excellence in science, technology and innovation and on their societal mission, the EuroTech Universities play based a strong role in regional innovation ecosystems and business clusters.

The Alliance will create a **joint knowledge transfer and innovation platform** through which the EuroTech Universities partners will work together to:

- Facilitate cooperation between the innovation ecosystems and open up opportunities for innovative companies and academia to meet and exchange expertise and foresight;
- Further professionalize knowledge transfer activities and develop improved output indicators, including patents, spin-offs and joint university-industry publications;
- Promote best practices and principles for knowledge transfer and support of regional innovation ecosystems regarding issues such as standardized contracts, entrepreneurship stimuli and business development. Special attention will be paid to the needs and involvement of the new Member States. A high level public event on this issue will be held in November 2013.
- Building on the EuroTech Universities partners' integration in regional innovation ecosystems, the Alliance aims to strengthen the European scope of these ecosystems to exchange complementary expertise.

GENDER EQUALITY AND GENDER MAINSTREAMING IN RESEARCH

Universities of science and technology face special challenges in attracting female students and in recruiting female staff members. The EuroTech Universities are all currently engaged in addressing this challenge. Based on these foundations the **Alliance** is committed to making measurable progress in relation to the following:

- Based on exchanges of experience and best practice the Alliance will create a joint EuroTech Universities Gender Action Plan, with measurable targets, including support measures for various target groups (school age, students, researchers and teaching staff) as well as joint research and education projects. Measures will be jointly monitored, assessed and amended as appropriate.

OPEN ACCESS

The EuroTech Universities will work with academia, research organisations and networks on the national and international level to promote Open Access principles, standards, facilities and procedures

COMMUNICATING ERA

Targeted communications and dissemination activities are essential to promote the ERA and to make it more attractive and competitive on a global scale. The EuroTech Universities Alliance is committed to ensure that its communications and knowledge sharing activities contribute to these ERA objectives.

The **EuroTech Universities Alliance** will take action in:

- Developing a EuroTech Universities joint platform for communicating science and technology to a range of target audiences including researchers, innovators, entrepreneurs and decision-makers at EU and national level. The activities of the platform will include the development and dissemination of best practices guidelines and success stories (e.g. on academia-industry cooperation).
- Launching a EuroTech Universities on-line consolidated e-learning programme of Massive Open Online Courses (MOOCs) in relevant scientific and technological themes;
- Supporting cross-border exchange among researchers through a series of dedicated workshops, which offer an opportunity to discuss and pave the way for cooperation in fields of mutual interest.

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

Zürich, 12 June 2013

Endorsement of the Unilateral Statement concerning ERA between CESAER and the European Commission by IDEA League

Dear Director-General,
Dear Mr. Smits,

On behalf of the IDEA League, it is my pleasure to endorse the Unilateral Statement concerning the development of the European Research Area between CESAER and the European Commission.

The IDEA League is a network of leading European universities of technology and science. Founded in 1999, it is a highly selective university network based on excellence, reliance and trust. Our joint activities in education, research, innovation and quality assurance, as well as our joint participation in EU programmes and initiatives, make us a model of European cooperation. Together, we create added value by pooling resources for collaborative and complementary programmes for our students, researchers, and staff.

We support the development of a European Research Area (ERA) and see a clear recognition for the leading role that universities of technology can play in this process. CESAER has identified four key areas for action: i) Researchers and Research Careers, ii) Knowledge Transfer and Open access, and iii) Cross Border Cooperation, in order to contribute to the development as set out in the communication *A Reinforced European Research Area Partnership for Excellence and Growth*.

As IDEA League our ambition is to drive the agenda for excellence in education and research. Our main concern is a high level of quality and its continuous improvement through our joint actions and activities. It is this agenda that we bring to CESAER together with the determination to make the step from statements to implementation. Examples of our current involvement in bringing forward the ERA with tangible projects are listed below:

Active Membership: As in IDEA League, we expect the membership in CESAER to be carried out in an active way in which our partner universities take on responsibility in actions and activities. The IDEA League members are actively involved in CESAER, its various boards and task forces. For example, all partners are represented in the Task Force Human Resources, in order to share our knowledge on institutional human resource strategies, as this will be a key issue for the free mobility of researchers across Europe. Moreover, the president-elect of CESAER is Karel Luyben, the rector of the IDEA League partner university TU Delft.

Educating the researchers of the future: In 2004 the IDEA League has established a grant scheme for Bachelor, Master and PhD students of our partner universities. Over 500 monthly stipends have been awarded for a research exchange at the partner universities. In addition, each year the IDEA League offers a summer school programme topics ranging from entrepreneurship education to ethical problem solving workshops all the way to research on the global challenges. Furthermore, the IDEA League supports the collaboration of the students of the partner universities by funding their activities from a central budget. In 2005, the IDEA League partners have developed one of the first trilateral Master programmes in Europe- the Master in Geophysics. Course material will soon be made available via Open Courseware or Massive Open Online Courses.

Cooperation without boundaries: The IDEA League has designed a Doctoral School which combines the search for solutions for global challenges with innovative Doctoral training. For 2012-13, the pilot programme was on Ageing and Sustainability. For 2013-14, the programme will be on Sustainable Urban Systems. The selected PhD students have the chance to take up the research issue as a collaborative and interdisciplinary project, in an international environment. The programmes of our Doctoral School are unique, integrated partnerships, conducted in close cooperation with our Asian partner network ASPIRE with the members Hong Kong University of Science and Technology, KAIST, Nanyang, TokyoTech and Tsinghua University for whom we are serving as a model of European cooperation.

Sincerely,



Ralph Eichler
President of IDEA League
President of ETH Zürich

NORDIC FIVE TECH

Helsinki, 13 June 2013

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

The Nordic Five Tech endorsement letter of the CESAER Statement on the European Research Area

Nordic Five Tech (N5T) is an exclusive, strategic alliance of the five leading technical universities in Denmark, Finland, Norway and Sweden. The goal of the alliance is to utilize shared and complementary strengths and create synergy within education, research and innovation.

The Nordic Five Tech universities - Aalto University, Chalmers University of Technology, Technical University of Denmark (DTU), KTH Royal Institute of Technology and Norwegian University of Science and Technology (NTNU) - are active individual members of CESAER. In partnership with all members of CEASER they are committed to the implementation of its Statement on ERA sent to the Commissioner by CEASER President Marco Gilli.

N5T is a strategic partnership of the above mentioned universities and is based on Nordic values and a common mission to serve the society through technological and scientific development and the education of high class engineers.

The specific aims of N5T are to become the Nordic check point for Nordic and international M.Sc. students in engineering, to increase the mobility of staff and students within N5T, to improve the competitive edge and acknowledgement for high quality in education, research and innovation, and to take advantage of the "N5T extended campus" in terms of activities, infrastructure and competence available within the alliance.

The N5T ambition is supported by the establishment of joint international M.Sc. programmes, shared recognition of bachelors' degrees, mutual learning and peer evaluation activities, and network activities to stimulate collaboration in research and education.

The N5T network is fully aware that the strengthening of the European Research Area is an essential prerequisite to achieve its goals. N5T recognizes the key role of TU's across Europe in the reinforcement of ERA. Within this context, it considers that the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, provides ambitious and highly relevant contributions to the priorities outlined in the Commission Communication on ERA which bring important added value to existing stakeholder commitments. Therefore, the N5T university network wishes to enthusiastically endorse the above mentioned CESAER actions and to state its intentions to facilitate its implementation through its own collaborative activities.

Sincerely yours,



Tuula Teeri
President, Nordic Five Tech (N5T)

Mr. Robert-Jan Smits
Director-General for Research and Innovation
European Commission
Square Orban, 10 (ORBN)
B-1049 Brussels
Belgium

Heverlee, June 21, 2013

Dear Mr. Smits,

please find attached the CESAER Unilateral Statement specifying our commitments towards supporting the ERA initiatives of Commissioner Máire Geoghegan Quinn and the endorsements letters and statements of our partner associations CLUSTER, EuroTech Universities, IDEA League and Nordic Five Tech.

We would appreciate the opportunity presenting our commitments and plans for implementation to the Commissioner hopefully on 17 July 2013.

We are looking forward working together with the Commissioner and the Commission services towards our common objective of making the European Research Area a reality.

Yours sincerely,



Prof. Marco Gilli
CESAER President

Cc Mr. Octavi Quintas-Trias, Director ERA
Ms Fabienne Gautier, Head of Unit, ERA Policy
Ms. Jacques Verraes, Assistant to the Deputy Director General

Enclosures: CESAER Unilateral Statement and endorsement letters

CESAER Statement on the European Research Area

Presented to European Commissioner Máire Geoghegan-Quinn

Heverlee, 20 June 2013

CESAER

CESAER - the Conference of European Schools for Advanced Engineering Education and Research - is a not-for-profit international association of leading European universities of technology and engineering schools/faculties at comprehensive universities and university colleges¹. CESAER has a current membership of 55 institutions from 24 different countries (see ANNEX 1).

Maintaining and promoting the highest quality standards in knowledge creation and transfer CESAER stands for scientific excellence in engineering education and research, and the promotion of innovation through close cooperation with the private and the public sector in order to ensure the application of cutting-edge knowledge in industry and society. CESAER and its member institutions will contribute substantially to making the knowledge triangle² a reality in HORIZON 2020.

19 CESAER member institutions are among the top 50 higher education institutions participating in FP7 presenting 38% of the top 50 HEIs and 45% of the top 20 HEIs in FP7³ (see ANNEX 2). Thus, CESAER members form the strongest group among other European university associations.

Associations of universities of technology speaking with one voice on ERA

Since its inception in 1990, some of CESAER's member institutions have formed separate transborder associations - CLUSTER, EuroTech Universities, IDEA League and Nordic Five Tech (see ANNEX 3) - that are committed to long-term close cooperation as well as targeted initiatives such as e.g. human resource development for research, joint programmes and joint infrastructures.

This Statement is also endorsed by these other associations. They will carry out specific initiatives supporting the realisation of the ERA and sometimes also complement the implementation of the actions set out here. Their statements on ERA are presented on the same date as that of CESAER and are integral parts of the latter (see Attachments 1 to 4).

¹ In the following, the term "university of technology" is used covering all these types of institutions.

² See the presentations of CESAER members at the CESAER-DG EAC "Knowledge Triangle" Workshop, 8 March 2012

<http://www.cesaer.org/en/news-items/event/presentations-from-the-knowledge-triangle-workshop/>

³ European Commission: Fifth FP7 Monitoring Report 2011. Brussels, 29 August 2012, p. 12

In addition, the five associations decided to speak with one voice in matters of shared interest. To this end, they agreed that CESAER acts as umbrella organisation and interlocutor to the Commission when presenting jointly agreed common positions regarding EU education, research and innovation policies. On a case by case basis, CESAER and the other associations will join forces in contributing to EU initiatives with the present support of the ERA initiative as a first example. All associations will continue presenting specific individual initiatives to the Commission.

CESAER and ERA

CESAER has provided substantive inputs to past consultations regarding EU research, innovation and education issues (see ANNEX 4).

CESAER is committed towards contributing to the completion of the European Research Area (ERA) actively supporting initiatives along the lines presented in the ERA Communication from 17 July 2012. When starting and implementing its activities CESAER respects and capitalizes on the diversity of the different national approaches across Europe as well as the autonomy of member institutions.

CESAER subscribes to the MoU signed by the Commission and EUA in July 2012 and offers to join forces with the European Commission and with other stakeholders in the ERA process. The added value of CESAER contributing to the implementation European policies is that is a coherent grouping of universities of technology that presents critical mass for providing targeted promotion and stimulation of EU initiatives and achieving impact.

CESAER is a membership-based organisation for which this Statement constitutes an intentional agreement which has no legal basis under Belgian law. CESAER member institutions operate within national legal and administrative frameworks that define their autonomy and freedom of action.

In its meeting in Valencia on 1 March 2013, the CESAER Board of Directors has authorised the CESAER President, Professor Marco Gilli, to sign a Memorandum of Understanding or a Unilateral Statement on behalf of all CESAER member institutions.

CESAER actions towards ERA

CESAER will take targeted measures in order to encourage and support its members to start and carry out the actions that are set out below, as far as allowed by national legislation, and respecting the institutional autonomy and the resources of its member institutions.

Researchers and research careers

1. Join a CESAER support action promoting the application of the four step approach for implementing institutional human resource strategies for their researchers in line with the basic principles of the EC recommendation on the European Charter for Researchers and a Code of

Conduct for the Recruitment of Researchers⁴ and obtaining the EU Human Resource Excellence in Research logo⁵. This activity will build on the work of the CESAER Task Force Human Resources and the participation of CESAER in the 4th Cohort of the HRS4R Group.

2. Participate in experience sharing and mutual learning between CESAER member institutions that signed the Charter and Code and other CESAER member institutions in order to promote the implementation of the Charter and Code principles among more CESAER member institutions.
3. Start or continue to fill vacancies for first-stage, recognised, established, and leading researchers according to open, transparent and merit-based recruitment procedures, in line with the basic principles of the EC Recommendation on the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers. More CESAER member institutions advertising such vacancies on the EURAXESS Jobs portal will be a concrete result of this action.
4. Identify and analyse barriers, experienced by CESEAR members, for implementing ERA related activities that are stemming from national rules, regulations or practices and prepare an overview of the findings. Where appropriate, approach government authorities and/or research councils in a concerted initiative and request appropriate action towards developing more favourable frameworks at member state level contributing to the completion of ERA.
5. Develop and start, or continue and share implementation experiences with institutional gender strategies and Gender Equality Plans encompassing e.g. commitments from the CESAER member institutions' leadership, promoting the appropriate mix of gender-specific career development measures, or by ensuring monitoring of the implementation of Gender Equality Plans through the appropriate internal procedures.
6. Develop and start, or continue to provide structured programmes for doctoral training in line with the basic EU Principles for Innovative Doctoral Training⁶. These actions are underpinned by the CESAER document "Corner Stones for a Doctorate in Engineering"⁷.
7. Foster education and training in complementary skills especially in entrepreneurship in the knowledge triangle in order to promote the development of a new generation of engineering innovators and entrepreneurs. This is already high on the agenda of member institutions of CESAER⁸ and the other associations the individual member institutions.

⁴ See <http://ec.europa.eu/euraxess/index.cfm/rights>

⁵ See <http://ec.europa.eu/euraxess/index.cfm/rights/strategy4Researcher>

⁶ http://ec.europa.eu/euraxess/pdf/research_policies/Principles_for_Innovative_Doctoral_Training.pdf

⁷ See: http://www.cesaer.org/content/assets/docs/Corner_Stones_for_a_Doctorate_in_Engineering.pdf

⁸ See e.g. the 2013 CESAER Seminar will be devoted to the topic "Education and training for entrepreneurship", 17 October 2013, RWTH Aachen University.

8. Explore the possibility and feasibility of joining a Pan-European Supplementary Pension Fund for Researchers⁹, and support the on-going discussions on the portability of social security rights. CESAER is actively cooperating with and supporting DG RTD, Unit B2 on this issue.

Knowledge transfer and open access

9. Develop and further enhance as well as share, best practice in the areas of institutional research strategies and management as well as research support and knowledge transfer activities including collaboration with external partners based on common strategic research agendas. These actions should reflect the “open innovation” environment and build upon a wider use and application of the “Responsible Partnering Guidelines”¹⁰.
10. Explore, develop and start, or continue to implement comprehensive principles, standards and procedures for open access to publications and research data emanating from publicly-funded research, and participate in a new CESAER Task Force on Open Science that is being established. This Task Force will prepare a position paper on Open Access.

Cross border cooperation

11. Continue and enhance taking active roles in transnational and cross-sectoral multi-disciplinary partnership projects and initiatives¹¹ addressing societal challenges and enhancing competitiveness and work with national authorities and funding councils and agencies shaping ERA initiatives such as Joint Programming Initiatives possibly based on a CESAER-wide policy and approach contributing to the optimization of user-friendly implementation modalities
12. Explore possibilities of developing, in a cost-efficient way, research cooperation with universities ("twinning") and/or regions ("teaming") in other EU Member and Associated States, building on existing experience and taking advantage of research and innovation strategies for smart specialisation. With the help of Commission services CESAER is closely monitoring its member institutions' participation and their collaborative links in FP7 as a basis for strengthening the collaboration with high-quality partners from more remote or peripheral regions and thus widening FP7 partnerships and institutional linkages in ERA.

⁹ See:

<http://i3s.ec.europa.eu/commitment/8.html;i3sid=B23SQs5CYf4kZdNyy6jr3Jbv7ph2qHDycw8bZfYGcqXs7GMkhnLG!855751261>

¹⁰ Joining Forces in a world of Open Innovation. GUIDELINES for Collaborative Research and knowledge transfer between science and industry. EIRMA, EUA, EARTO, ProTon, October 2009

¹¹ European Commission: Partnering in Research and Innovation. COM(2011) 572 final, Brussels, 21.9.2011

CESAER working with the European Commission

CESAER is open for working closely with the European Commission and the other stakeholder organisations exchanging information on progress and experiences of the ERA related initiatives e.g. in the ERA Stakeholder Forum. CESAER will welcome the support of the European Commission when implementing the above activities and, in addition, is looking forward for working towards signing an ERA Memorandum of Understanding in the future to further develop and formalise the commitments of CESAER and of the European Commission.



Marco Gilli

President, CESAER

Annexes:

1. CESAER member institutions
2. Overview: Engineering networks
3. Table: University networks among top 50 HES in FP7
4. List of CESAER Position Papers

Enclosures: Endorsement letters/statements

1. CLUSTER Network
2. EuroTech Universities Alliance
3. IDEA League
4. Nordic 5 Tech

CC:

- For CLUSTER: Prof. Eberhard Umbach and Prof. Jürgen Becker
- For EuroTech Universities: Prof. Aarnout Brombacher and Dr. Andrew Sors
- For IDEA League: Prof. Ralph Eichler and Dr. Ulla Bidian
- For Nordic Five Tech (NST): Prof. Tuula Teeri and Prof. Mauri Airila

CESAER Member Institutions:

Austria

Technische Universität Wien

Belgium

Universiteit Gent, Faculteit Ingenieurswetenschappen
Katholieke Universiteit Leuven, Faculteit
Ingenieurswetenschappen
Université Catholique de Louvain, Faculté des
Sciences Appliquées

Czech Republic

Brno University of Technology
Czech Technical University in Prague

Denmark

Aalborg University, Faculty of Engineering and
Science
Technical University of Denmark

Estonia

Tallinn University of Technology

Finland

Aalto University

France

Ecole Centrale Paris
Institut National Polytechnique de Grenoble
Institut National des Sciences Appliquées de Lyon
ParisTech
GEA - Groupe des Ecoles Aéronautiques Françaises
Institut National des Sciences Appliquées de Toulouse
SUPELEC - Ecole Supérieure d'Electricité

Germany

Rheinisch-Westfälische Technische Hochschule
Technische Universität Berlin
Technische Universität Carolo-Wilhelmina zu
Braunschweig
Technische Universität Darmstadt
Technische Universität Dresden
Technische Universität Hamburg-Harburg
Gottfried Wilhelm Leibniz Universität Hannover
Technische Universität Ilmenau
Karlsruhe Institute of Technology
Technische Universität München

Greece

National Technical University of Athens
Technical University of Crete
Aristotle University of Thessaloniki, School of
Engineering

Hungary

Budapest University of Technology and Economics

Ireland

University College Dublin

Israel

*Technion, Israel Institute of Technology (associate
member)*

Italy

Politecnico di Milano
Politecnico di Torino

Lithuania

Kaunas University of Technology

Netherlands

Technische Universiteit Delft
Technische Universiteit Eindhoven
Universiteit Twente

Norway

The Norwegian University of Science and Technology

Poland

Politechnika Poznanska
Warsaw University of Technology

Portugal

Instituto Superior Técnico, Lisbon
Universidade do Porto, Faculty of Engineering (FEUP)

Romania

Universitatea Politehnica Bucuresti

Russia

Tomsk Polytechnic University

Spain

Universitat Politècnica de Catalunya
Universidad Politécnica de Madrid
Universidad Politécnica de Valencia

Sweden

Chalmers University of Technology
Lund University, Faculty of Engineering LTH
The Royal Institute of Technology (KTH)

Switzerland

Ecole Polytechnique Fédérale de Lausanne
Eidgenössische Technische Hochschule Zürich

Turkey

Istanbul Technical University

Number	HES Rank 2011	Rank total 2011	Institution Name	Country	Participations 2007-2011	Networks and alliances of research oriented universities										
						CESAER	LERU	CLUSTER	COIMBRA Group	IDEA League	EuroTech Universities	Nordic Five Tech	Santander Group	Other		
1	1	3	UNIVERSITY OF CAMBRIDGE	UK	446		X		X							
2	2	6	UNIVERSITY OF OXFORD	UK	384		X									
3	3	7	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK	377		X									
4	4	8	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH	349	X				X						
5	6	10	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	329	X	X	X								
6	5	9	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH	329	X		X			X					
7	7	13	UNIVERSITY COLLEGE LONDON	UK	313											
8	8	18	KØBENHAVNS UNIVERSITET	DK	237										X	
9	9	19	DANMARKS TEKNISKE UNIVERSITET	DK	235	X					X	X				
10	10	20	UNIVERSITY OF EDINBURGH	UK	234		X		X							
11	11	21	KAROLINSKA INSTITUTET	SE	214										X	
12	12	23	TECHNISCHE UNIVERSITEIT DELFT	NL	212	X				X						
13	13	24	LUNDS UNIVERSITET	SE	210	X	X									
14	14	25	UNIVERSITY OF MANCHESTER	UK	207										X	
15	15	26	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE	198	X		X								
16	16	27	KUNGLIGA TEKNISKA HOEGSKOLAN	SE	195	X		X				X				
17	17	28	UNIVERSITY OF SOUTHAMPTON	UK	182										X	
18	18	29	WAGENINGEN UNIVERSITEIT	NL	178										X	
19	19	30	VERENIGING VU-WINDESHEIM	NL	173										X	
20	20	31	UNIVERSITEIT GENT	BE	171	X							X			
21	21	33	UNIVERSITY OF NOTTINGHAM	UK	170										X	
22	22	34	UNIVERSITY OF SHEFFIELD	UK	168										X	
23	23	35	UNIVERSITY OF LEEDS	UK	165										X	
24	23	37	UNIVERSIDAD POLITECNICA DE MADRID	ES	165	X										
25	24	40	AARHUS UNIVERSITET	DK	164				X							
26	25	41	UNIVERSITEIT UTRECHT	NL	162		X									
27	26	42	CHALMERS TEKNISKA HOEGSKOLA	SE	158	X						X				
28	27	43	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT	157				X							
29	28	44	HELSINGIN YLIOPISTO	FI	155										X	
30	29	45	UNIVERSITY OF BRISTOL	UK	154				X							
31	30	46	UNIVERSITAET STUTTGART	DE	153											
32	31	49	HEBREW UNIVERSITY OF JERUSALEM	IL	150											
33	31	52	UNIVERSITY OF NEWCASTLE UPON TYNE	UK	150											
34	31	47	STICHTING KATHOLIEKE UNIVERSITEIT	NL	150										X	
35	32	53	UNIVERSITAET ZUERICH	CH	148		X									
36	33	54	TECHNISCHE UNIVERSITAET MUENCHEN	DE	147	X					X					
37	34	56	UNIVERSITE DE GENEVE	CH	146		X									
38	35	58	KING'S COLLEGE LONDON	UK	145										X	
39	36	61	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE	144	X				X						
40	36	60	UPPSALA UNIVERSITET	SE	144										X	
41	37	64	POLITECNICO DI MILANO	IT	143	X										
42	37	62	UNIVERSITY OF BIRMINGHAM	UK	143										X	
43	38	67	TECHNISCHE UNIVERSITAET WIEN	AT	139	X										
44	39	68	TECHNISCHE UNIVERSITAET DRESDEN	DE	137	X										
45	40	69	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT	136									X		
46	41	71	TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY	IL	133	X										
47	42	72	WEIZMANN INSTITUTE OF SCIENCE	IL	132											
48	43	73	TEL AVIV UNIVERSITY	IL	131											
49	44	74	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL	128	X		X			X			X		
50	45	76	TECHNISCHE UNIVERSITAT BERLIN	DE	127	X										
Number of institutions among top 50						19	9	5	5	3	4	3	3	14		
% of institutions among top 50						38,00	18,00	10,00	10,00	6,00	8,00	6,00	6,00	28,00		
Number of institutions among top 20						9	6	4	2	2	2	2	1	6		
% of institutions among top 20						45,00	30,00	20,00	10,00	10,00	10,00	10,00	5,00	30,00		
Total number of participations					9.617	2.939*	2.438	1.179	1.155	1.082	839	588	435	2.431		

* The number of participations of the data of KU Leuven and the Universities of Lund and Gent where only the Faculties of Engineering are CESAER members. Participation numbers of these faculties were not available.

	Country	CESAER Member institutions (55 - status 01.01.2013)	CLUSTER	IDEA League	Nordic Five Tech	Euro Tech Universities
1	Austria	Technische Universität Wien				
2	Belgium	Universiteit Gent, Faculteit Ingenieurswetenschappen				
3		Katholieke Universiteit Leuven, Faculteit Ingenieurswetenschappen	x			
4		Université Catholique de Louvain, Ecole Polytechnique	x			
5	Czech Republic	Brno University of Technology				
6		Czech Technical University in Prague				
7	Denmark	Aalborg University, Faculty of Engineering and Science				
8		Technical University of Denmark			x	x
9	Estonia	Tallinn University of Technology				
10	Finland	Aalto University	x		x	
11	France	Ecole Centrale Paris				
12		Institut National Polytechnique de Grenoble	x			
13		Institut National des Sciences Appliquées de Lyon				
14		ParisTech		x		
15		GEA - Groupe des Ecoles Aéronautiques Françaises				
16		Institut National des Sciences Appliquées de Toulouse				
17		SUPELEC - Ecole Supérieure d'Electricité				
18	Germany	Rheinisch-Westfälische Technische Hochschule		x		
19		Technische Universität Berlin				
20		Technische Universität Carolo-Wilhelmina zu Braunschweig				
21		Technische Universität Darmstadt	x			
22		Technische Universität Dresden				
23		Technische Universität Hamburg-Harburg				
24		Gottfried Wilhelm Leibniz Universität Hannover				
25		Technische Universität Ilmenau				
26		Karlsruhe Institute of Technology				
27		Technische Universität München				x
28	Greece	National Technical University of Athens				
29		Technical University of Crete				
30		Aristotle University of Thessaloniki, School of Engineering				
31	Hungary	Budapest University of Technology and Economics				
32	Ireland	University College Dublin				
33	Israel	<i>Technion, Israel Institute of Technology (associate member)</i>				
34	Italy	Politecnico di Milano				
35		Politecnico di Torino	x			
36	Lithuania	Kaunas University of Technology				
37	Netherlands	Technische Universiteit Delft		x		
38		Technische Universiteit Eindhoven	x			x
39		Universiteit Twente				
40	Norway	The Norwegian University of Science and Technology			x	
41	Poland	Politechnika Poznanska				
42		Warsaw University of Technology				
43	Portugal	Instituto Superior Técnico, Lisbon	x			
44		Universidade do Porto, Faculty of Engineering (FEUP)				
45	Romania	Universitatea Politehnica Bucuresti				
46	Russia	Tomsk Polytechnic University				
47	Spain	Universitat Politècnica de Catalunya	x			
48		Universidad Politécnica de Madrid				
49		Universidad Politécnica de Valencia				
50	Sweden	Chalmers University of Technology			x	
51		Lund University, Faculty of Engineering LTH				
52		The Royal Institute of Technology (KTH)	x		x	
53	Switzerland	Ecole Polytechnique Fédérale de Lausanne	x			x
54		Eidgenössische Technische Hochschule Zürich		x		
55	Turkey	Istanbul Technical University				

CESAER position papers in the areas of research and innovation and higher education

- Erasmus for All: The position of CESAER, June 2012
- CESAER position towards the Commission proposal for HORIZON 2020 The Framework Programme for Research and Innovation (2014 – 2020), February 2012
- CESAER Response to the Public Consultation on the ERA Framework: Areas of untapped potential for the development of the European Research Area, November 2011
- CESAER Response to Open Public Consultation on the European Institute for Innovation and Technology (EIT), June 2011
- CESAER Response consultation about the Green Paper on a common strategic framework for EU research and innovation funding, May 2011

President

Prof. Dr. Eberhard Umbach

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E-Mail: eberhard.umbach@kit.edu
Web: www.kit.edu

Date: June 12, 2013

CLUSTER endorsement letter to the CESAER Statement on the European Research Area

CLUSTER (Consortium Linking Universities of Science and Technology for Education and Research), founded in February 1990, is a consortium of 12 elite European Universities in Science and Engineering (and architecture) with associate members from around the world. During the last 23 years, the CLUSTER Consortium evolved from being focussed only on Engineering Education to be, nowadays, acting on the so called knowledge triangle comprising education, research and innovation.

In a world facing unprecedented challenges, engineering, science and technology play central roles. The wellbeing of our society depends on our answers to such challenges, that cannot be found by a single nation or engineering discipline. Instead, they call for truly international, multi-disciplinary collaboration and a new forward-looking mind set. It is thus largely in our hands to breed a new generation of engineers with leadership and entrepreneurial skills. CLUSTER is an active platform in the promotion and creation of frameworks aiming to tackle these societal issues.

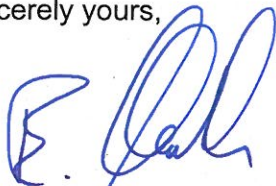
Europe hosts many excellent institutions in science and technology. Still, Europe is also lacking critical mass in comparison with the leading institutions of the US. Integrating different centres of excellence in Europe in key areas of Science and Technology, with a strong potential for future growth, is indeed a challenge for Europe.

CLUSTER is a central player in the development of Knowledge & Innovation Communities (KIC) in Europe. Together, the network aims to enhance cooperation among the members to promote exchange, cooperation and interaction between students, faculty and administrative staff. By this CLUSTER provides a strategic platform for joint programmes within education, research and innovation. It develops interaction, cooperation and joint programmes with its associate members and builds partnerships with major European enterprises.

CLUSTER identifies the need of strengthening the position of European Technical Universities within the European Research Area (ERA) as an essential prerequisite for the reinforcement of ERA. Within this context, it supports the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, as they provide highly relevant contributions to the priorities outlined in the Commission Communication on ERA bringing relevant added value to existing stakeholder commitments.

Therefore, CLUSTER fully endorses CESAER's Unilateral Statement on ERA and its implementation by the CESAER President.

Sincerely yours,



Eberhard Umbach
President of KIT and CLUSTER President

Mr. Robert-Jan SMITS
Director-General
DG Research & Innovation
1049 Brussels

Brussels, 20.06.2013

Dear Director-General,
Dear Mr. Smits,

I am writing to you in my capacity as Chair of the EuroTech Universities Alliance Governing Board.

EuroTech is a strategic partnership of four leading Universities of Science and Technology in Europe: Danmarks Tekniske Universitet (DTU), Ecole Polytechnique Fédérale de Lausanne (EPFL), Technische Universiteit Eindhoven (TU/e) and Technische Universität München (TUM). The mission of EuroTech is to advance areas of common interest, including research into the grand societal challenges such as energy, climate, or economic growth. We recognize the importance of strengthening the European Research Area (ERA) and are convinced that the Universities of Science and Technology will play a particularly important role in relation to the aims of ERA.

The EuroTech Universities are all members of the Conference of European Schools for Advanced Engineering Education and Research (CESAER). EuroTech believes that the "CESAER actions towards ERA", specified in the CESAER Statement, offers crucial and indispensable contributions to the priorities outlined in the European Commission Communication on ERA (17.07.2012) and that these actions will add to already existing commitments on the part of other key ERA stakeholders. Therefore, EuroTech enthusiastically endorses the above mentioned CESAER actions and to confirm its intention to facilitate their implementation at the level of its members as well as by the Alliance as a whole.

The EuroTech Universities' own Statement on ERA, entitled "ERA in action", takes the "CESAER actions towards ERA" as its point of reference. The Alliance's own statement contains ERA related commitments which are consistent with the capabilities as well as the limitations of a small, in depth inter-institutional strategic partnership. Thus, "ERA in action" contributes and adds value to the platform of "technical universities associations speaking with one voice on ERA". The membership of this platform consists of the major associations of TU's in Europe, namely CLUSTER; IDEA League; Nordic 5 Tech and EuroTech Universities Alliance with CESAER providing the overall "umbrella."

Thank you for your attention.

Kind regards



Prof. Dr. Ir. Aarnout Brombacher
Chair of the EuroTech Universities Alliance Governing Board
Vice-rector for international relations, Technische Universiteit Eindhoven – TU/e

EuroTech Universities Alliance – ERA in action

INTRODUCTORY REMARKS

1. The EuroTech Universities Alliance is a strategic partnership of four leading universities of science, technology and engineering, namely:
 - Technical University of Denmark
 - Ecole Polytechnique Fédérale de Lausanne
 - Eindhoven University of Technology
 - Technische Universität München
2. The Alliance’s mission is to develop technical solutions which address grand societal challenges.
3. As members of the European University Association (EUA), the EuroTech Universities are already engaged in the implementation of the Memorandum of Understanding (MoU) between the EUA and the European Commission, signed on 17 July 2012. In their capacity as members of the Conference of European Schools for Advanced Engineering Education and Research (CESAER), the EuroTech Universities **fully endorse** the statement sent by the President of CESAER to the Director- General of DG Research and Innovation on March 2013.
4. The EuroTech Universities recognize that the structuring of the ERA will not be achieved through a “one size fits all” approach and cannot proceed as a single process. These simultaneous, multi-level, multi speed structuring processes also provide the rationale for member institutions of more thematically focused university associations, such as LERU and CESAER, undertaking ERA related commitments which are additional to commitments they have made as members of EUA.
5. Durable, transnational, inter-university strategic partnerships, such as the EuroTech Universities Alliance are only practicable across a relatively small number of institutions. These types of partnerships are complement and add value to the qualitatively different cooperation among members of larger networks.
6. The EuroTech Universities are determined that their strengthening partnership within the Alliance is used to promote cooperation with other institutions, stakeholder organizations and with societal actors.

ACTIONS BY ALL EUROTECH UNIVERSITIES AND BY THE EUROTECH UNIVERSITIES ALLIANCE IN RELATION TO THE REINFORCEMENT OF THE EUROPEAN RESEARCH AREA

Within each of its four member institutions and/or at the level of the Alliance as a whole, the EuroTech Universities hereby state their voluntary intent to carry out the actions set out below with a view to achieving measurable progress by end of 2014. Such progress to be monitored by the Alliance's Governing Board and published on the Alliance's website.

POST GRADUATE RECRUITMENT, TRAINING AND RESEARCH

The EuroTech Universities' excellence in research and education combined with their long-standing expertise in knowledge transfer ensure that their PhDs involve a thorough training in research accompanied by an appropriate orientation to industry's needs. The first Alliance level joint doctoral activities are underway.

The **EuroTech Universities** will actively promote:

- Open recruitment / selection process of doctoral candidates, systematically sharing and jointly advertizing open positions for PhD-candidates;
- Systematic sharing of information on open positions and publishing on all four partners' websites.

The **Alliance** is engaged in building shared educational and research platforms at the post graduate levels. It is committed to making measurable progress in relation to the following:

- Creation of a joint database on PhD courses;
- Cooperation and participation in Masters programmes on innovation, entrepreneurship and technology management;
- Joint doctoral education, including exchange schemes for PhD and PDEng students, and joint summer schools;
- Shared access to and creation of joint transferable skills courses (such as entrepreneurship, ethics, communication and industrial design) with a view to enhancing mobility between disciplines, between academy & industry and across borders;
- Depending on progress on above, development of a portfolio of interdisciplinary doctoral courses, taught by faculty across the members of the Alliance.

RESEARCH ATTRACTIVENESS, RESEARCH CAREERS

The EuroTech Universities are fully engaged in the continuing development, application, evaluation and exchanges of best practices in relation to attracting excellent researchers - especially but not exclusively the most promising young talent. Within this overall context, the Alliance has given careful consideration to the detailed contents of “Invitation to research stakeholders” in the ERA Communication (Section 2.3), under the heading “An open labour market for researchers.”

Based on these considerations the **EuroTech Universities**, individually and the Alliance as a whole, commit themselves to make measurable progress in relation to the following points of the ERA Communication:

- Use of open, transparent and merit based procedures for filling vacancies as well as exchanging best practices in recruitment and retention of top talent in universities of science & technology, including through family-friendly recruitment approaches;
- Encourage debate on career development in universities. The first contribution to this debate will be a high-level public event on Tenure Track will take place on 10 June 2013 in Brussels.
- To the extent appropriate and practicable, make full use of the instruments offered by the European Commission, such as advertising all researcher vacancies on EURAXESS in line with its common profiles from January 2014 onwards and exploring the use of HR Excellence in Research logo and the signing of the European Charter and Code of Conduct for Researchers;
- Promote mobility and exchange of academic and support staff across member institutions;
- Establish a joint network of young academic professionals (professors, postdocs e.g. “EuroTech Universities Academy of Young Professors”), aimed at creating linkages between researchers strengthening their professional skills, including through mentoring schemes.

ACADEMIA-INDUSTRY COOPERATION AND KNOWLEDGE TRANSFER

The EuroTech Universities are among the acknowledged leaders in various aspects of academia-industry cooperation, mobility and knowledge transfer. Based on their excellence in science, technology and innovation and on their societal mission, the EuroTech Universities play based a strong role in regional innovation ecosystems and business clusters.

The Alliance will create a **joint knowledge transfer and innovation platform** through which the EuroTech Universities partners will work together to:

- Facilitate cooperation between the innovation ecosystems and open up opportunities for innovative companies and academia to meet and exchange expertise and foresight;
- Further professionalize knowledge transfer activities and develop improved output indicators, including patents, spin-offs and joint university-industry publications;
- Promote best practices and principles for knowledge transfer and support of regional innovation ecosystems regarding issues such as standardized contracts, entrepreneurship stimuli and business development. Special attention will be paid to the needs and involvement of the new Member States. A high level public event on this issue will be held in November 2013.
- Building on the EuroTech Universities partners' integration in regional innovation ecosystems, the Alliance aims to strengthen the European scope of these ecosystems to exchange complementary expertise.

GENDER EQUALITY AND GENDER MAINSTREAMING IN RESEARCH

Universities of science and technology face special challenges in attracting female students and in recruiting female staff members. The EuroTech Universities are all currently engaged in addressing this challenge. Based on these foundations the **Alliance** is committed to making measurable progress in relation to the following:

- Based on exchanges of experience and best practice the Alliance will create a joint EuroTech Universities Gender Action Plan, with measurable targets, including support measures for various target groups (school age, students, researchers and teaching staff) as well as joint research and education projects. Measures will be jointly monitored, assessed and amended as appropriate.

OPEN ACCESS

The EuroTech Universities will work with academia, research organisations and networks on the national and international level to promote Open Access principles, standards, facilities and procedures

COMMUNICATING ERA

Targeted communications and dissemination activities are essential to promote the ERA and to make it more attractive and competitive on a global scale. The EuroTech Universities Alliance is committed to ensure that its communications and knowledge sharing activities contribute to these ERA objectives.

The **EuroTech Universities Alliance** will take action in:

- Developing a EuroTech Universities joint platform for communicating science and technology to a range of target audiences including researchers, innovators, entrepreneurs and decision-makers at EU and national level. The activities of the platform will include the development and dissemination of best practices guidelines and success stories (e.g. on academia-industry cooperation).
- Launching a EuroTech Universities on-line consolidated e-learning programme of Massive Open Online Courses (MOOCs) in relevant scientific and technological themes;
- Supporting cross-border exchange among researchers through a series of dedicated workshops, which offer an opportunity to discuss and pave the way for cooperation in fields of mutual interest.

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

Zürich, 12 June 2013

Endorsement of the Unilateral Statement concerning ERA between CESAER and the European Commission by IDEA League

Dear Director-General,
Dear Mr. Smits,

On behalf of the IDEA League, it is my pleasure to endorse the Unilateral Statement concerning the development of the European Research Area between CESAER and the European Commission.

The IDEA League is a network of leading European universities of technology and science. Founded in 1999, it is a highly selective university network based on excellence, reliance and trust. Our joint activities in education, research, innovation and quality assurance, as well as our joint participation in EU programmes and initiatives, make us a model of European cooperation. Together, we create added value by pooling resources for collaborative and complementary programmes for our students, researchers, and staff.

We support the development of a European Research Area (ERA) and see a clear recognition for the leading role that universities of technology can play in this process. CESAER has identified four key areas for action: i) Researchers and Research Careers, ii) Knowledge Transfer and Open access, and iii) Cross Border Cooperation, in order to contribute to the development as set out in the communication *A Reinforced European Research Area Partnership for Excellence and Growth*.

As IDEA League our ambition is to drive the agenda for excellence in education and research. Our main concern is a high level of quality and its continuous improvement through our joint actions and activities. It is this agenda that we bring to CESAER together with the determination to make the step from statements to implementation. Examples of our current involvement in bringing forward the ERA with tangible projects are listed below:

Active Membership: As in IDEA League, we expect the membership in CESAER to be carried out in an active way in which our partner universities take on responsibility in actions and activities. The IDEA League members are actively involved in CESAER, its various boards and task forces. For example, all partners are represented in the Task Force Human Resources, in order to share our knowledge on institutional human resource strategies, as this will be a key issue for the free mobility of researchers across Europe. Moreover, the president-elect of CESAER is Karel Luyben, the rector of the IDEA League partner university TU Delft.

Educating the researchers of the future: In 2004 the IDEA League has established a grant scheme for Bachelor, Master and PhD students of our partner universities. Over 500 monthly stipends have been awarded for a research exchange at the partner universities. In addition, each year the IDEA League offers a summer school programme topics ranging from entrepreneurship education to ethical problem solving workshops all the way to research on the global challenges. Furthermore, the IDEA League supports the collaboration of the students of the partner universities by funding their activities from a central budget. In 2005, the IDEA League partners have developed one of the first trilateral Master programmes in Europe- the Master in Geophysics. Course material will soon be made available via Open Courseware or Massive Open Online Courses.

Cooperation without boundaries: The IDEA League has designed a Doctoral School which combines the search for solutions for global challenges with innovative Doctoral training. For 2012-13, the pilot programme was on Ageing and Sustainability. For 2013-14, the programme will be on Sustainable Urban Systems. The selected PhD students have the chance to take up the research issue as a collaborative and interdisciplinary project, in an international environment. The programmes of our Doctoral School are unique, integrated partnerships, conducted in close cooperation with our Asian partner network ASPIRE with the members Hong Kong University of Science and Technology, KAIST, Nanyang, TokyoTech and Tsinghua University for whom we are serving as a model of European cooperation.

Sincerely,



Ralph Eichler
President of IDEA League
President of ETH Zürich

NORDIC FIVE TECH

Helsinki, 13 June 2013

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

The Nordic Five Tech endorsement letter of the CESAER Statement on the European Research Area

Nordic Five Tech (N5T) is an exclusive, strategic alliance of the five leading technical universities in Denmark, Finland, Norway and Sweden. The goal of the alliance is to utilize shared and complementary strengths and create synergy within education, research and innovation.

The Nordic Five Tech universities - Aalto University, Chalmers University of Technology, Technical University of Denmark (DTU), KTH Royal Institute of Technology and Norwegian University of Science and Technology (NTNU) - are active individual members of CESAER. In partnership with all members of CEASER they are committed to the implementation of its Statement on ERA sent to the Commissioner by CEASER President Marco Gilli.

N5T is a strategic partnership of the above mentioned universities and is based on Nordic values and a common mission to serve the society through technological and scientific development and the education of high class engineers.

The specific aims of N5T are to become the Nordic check point for Nordic and international M.Sc. students in engineering, to increase the mobility of staff and students within N5T, to improve the competitive edge and acknowledgement for high quality in education, research and innovation, and to take advantage of the "N5T extended campus" in terms of activities, infrastructure and competence available within the alliance.

The N5T ambition is supported by the establishment of joint international M.Sc. programmes, shared recognition of bachelors' degrees, mutual learning and peer evaluation activities, and network activities to stimulate collaboration in research and education.

The N5T network is fully aware that the strengthening of the European Research Area is an essential prerequisite to achieve its goals. N5T recognizes the key role of TU's across Europe in the reinforcement of ERA. Within this context, it considers that the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, provides ambitious and highly relevant contributions to the priorities outlined in the Commission Communication on ERA which bring important added value to existing stakeholder commitments. Therefore, the N5T university network wishes to enthusiastically endorse the above mentioned CESAER actions and to state its intentions to facilitate its implementation through its own collaborative activities.

Sincerely yours,



Tuula Teeri
President, Nordic Five Tech (N5T)

President
Prof. Dr. Eberhard Umbach

Kaiserstraße 12
76131 Karlsruhe

KIT | Präsidium | 76128 Karlsruhe

To whom it may concern

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Fax: +49 721 608-26123
E-Mail: eberhard.umbach@kit.edu
Web: www.kit.edu

Date: June 12, 2013

CLUSTER endorsement letter to the CESAER Statement on the European Research Area

CLUSTER (Consortium Linking Universities of Science and Technology for Education and Research), founded in February 1990, is a consortium of 12 elite European Universities in Science and Engineering (and architecture) with associate members from around the world. During the last 23 years, the CLUSTER Consortium evolved from being focussed only on Engineering Education to be, nowadays, acting on the so called knowledge triangle comprising education, research and innovation.

In a world facing unprecedented challenges, engineering, science and technology play central roles. The wellbeing of our society depends on our answers to such challenges, that cannot be found by a single nation or engineering discipline. Instead, they call for truly international, multi-disciplinary collaboration and a new forward-looking mind set. It is thus largely in our hands to breed a new generation of engineers with leadership and entrepreneurial skills. CLUSTER is an active platform in the promotion and creation of frameworks aiming to tackle these societal issues.

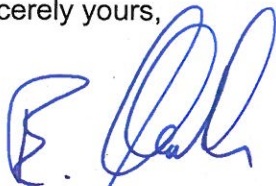
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CLUSTER identifies the need of strengthening the position of European Technical Universities within the European Research Area (ERA) as an essential prerequisite for the reinforcement of ERA. Within this context, it supports the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, as they provide highly relevant contributions to the priorities outlined in the Commission Communication on ERA bringing relevant added value to existing stakeholder commitments.

Therefore, CLUSTER fully endorses CESAER's Unilateral Statement on ERA and its implementation by the CESAER President.

Sincerely yours,



Eberhard Umbach
President of KIT and CLUSTER President

Mr. Robert-Jan SMITS
Director-General
DG Research & Innovation
1049 Brussels

Brussels, 20.06.2013

Dear Director-General,
Dear Mr. Smits,

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EuroTech is a strategic partnership of four leading Universities of Science and Technology in Europe: Danmarks Tekniske Universitet (DTU), Ecole Polytechnique Fédérale de Lausanne (EPFL), Technische Universiteit Eindhoven (TU/e) and Technische Universität München (TUM). The mission of EuroTech is to advance areas of common interest, including research into the grand societal challenges such as energy, climate, or economic growth. We recognize the importance of strengthening the European Research Area (ERA) and are convinced that the Universities of Science and Technology will play a particularly important role in relation to the aims of ERA.

The EuroTech Universities are all members of the Conference of European Schools for Advanced Engineering Education and Research (CESAER). EuroTech believes that the "CESAER actions towards ERA", specified in the CESAER Statement, offers crucial and indispensable contributions to the priorities outlined in the European Commission Communication on ERA (17.07.2012) and that these actions will add to already existing commitments on the part of other key ERA stakeholders. Therefore, EuroTech enthusiastically endorses the above mentioned CESAER actions and to confirm its intention to facilitate their implementation at the level of its members as well as by the Alliance as a whole.

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Thank you for your attention.

Kind regards



Prof. Dr. Ir. Aarnout Brombacher
Chair of the EuroTech Universities Alliance Governing Board
Vice-rector for international relations, Technische Universiteit Eindhoven – TU/e

EuroTech Universities Alliance – ERA in action

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- Use of open, transparent and merit based procedures for filling vacancies as well as exchanging best practices in recruitment and retention of top talent in universities of science & technology, including through family-friendly recruitment approaches;
- Encourage debate on career development in universities. The first contribution to this debate will be a high-level public event on Tenure Track will take place on 10 June 2013 in Brussels.
- To the extent appropriate and practicable, make full use of the instruments offered by the European Commission, such as advertising all researcher vacancies on EURAXESS in line with its common profiles from January 2014 onwards and exploring the use of HR Excellence in Research logo and the signing of the European Charter and Code of Conduct for Researchers;
- Promote mobility and exchange of academic and support staff across member institutions;
- Establish a joint network of young academic professionals (professors, postdocs e.g. “EuroTech Universities Academy of Young Professors”), aimed at creating linkages between researchers strengthening their professional skills, including through mentoring schemes.

ACADEMIA-INDUSTRY COOPERATION AND KNOWLEDGE TRANSFER

The EuroTech Universities are among the acknowledged leaders in various aspects of academia-industry cooperation, mobility and knowledge transfer. Based on their excellence in science, technology and innovation and on their societal mission, the EuroTech Universities play based a strong role in regional innovation ecosystems and business clusters.

The Alliance will create a **joint knowledge transfer and innovation platform** through which the EuroTech Universities partners will work together to:

- Facilitate cooperation between the innovation ecosystems and open up opportunities for innovative companies and academia to meet and exchange expertise and foresight;
- Further professionalize knowledge transfer activities and develop improved output indicators, including patents, spin-offs and joint university-industry publications;
- Promote best practices and principles for knowledge transfer and support of regional innovation ecosystems regarding issues such as standardized contracts, entrepreneurship stimuli and business development. Special attention will be paid to the needs and involvement of the new Member States. A high level public event on this issue will be held in November 2013.
- Building on the EuroTech Universities partners' integration in regional innovation ecosystems, the Alliance aims to strengthen the European scope of these ecosystems to exchange complementary expertise.

GENDER EQUALITY AND GENDER MAINSTREAMING IN RESEARCH

Universities of science and technology face special challenges in attracting female students and in recruiting female staff members. The EuroTech Universities are all currently engaged in addressing this challenge. Based on these foundations the **Alliance** is committed to making measurable progress in relation to the following:

- Based on exchanges of experience and best practice the Alliance will create a joint EuroTech Universities Gender Action Plan, with measurable targets, including support measures for various target groups (school age, students, researchers and teaching staff) as well as joint research and education projects. Measures will be jointly monitored, assessed and amended as appropriate.

OPEN ACCESS

The EuroTech Universities will work with academia, research organisations and networks on the national and international level to promote Open Access principles, standards, facilities and procedures

COMMUNICATING ERA

Targeted communications and dissemination activities are essential to promote the ERA and to make it more attractive and competitive on a global scale. The EuroTech Universities Alliance is committed to ensure that its communications and knowledge sharing activities contribute to these ERA objectives.

The **EuroTech Universities Alliance** will take action in:

- Developing a EuroTech Universities joint platform for communicating science and technology to a range of target audiences including researchers, innovators, entrepreneurs and decision-makers at EU and national level. The activities of the platform will include the development and dissemination of best practices guidelines and success stories (e.g. on academia-industry cooperation).
- Launching a EuroTech Universities on-line consolidated e-learning programme of Massive Open Online Courses (MOOCs) in relevant scientific and technological themes;
- Supporting cross-border exchange among researchers through a series of dedicated workshops, which offer an opportunity to discuss and pave the way for cooperation in fields of mutual interest.

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

Zürich, 12 June 2013

Endorsement of the Unilateral Statement concerning ERA between CESAER and the European Commission by IDEA League

Dear Director-General,
Dear Mr. Smits,

On behalf of the IDEA League, it is my pleasure to endorse the Unilateral Statement concerning the development of the European Research Area between CESAER and the European Commission.

The IDEA League is a network of leading European universities of technology and science. Founded in 1999, it is a highly selective university network based on excellence, reliance and trust. Our joint activities in education, research, innovation and quality assurance, as well as our joint participation in EU programmes and initiatives, make us a model of European cooperation. Together, we create added value by pooling resources for collaborative and complementary programmes for our students, researchers, and staff.

We support the development of a European Research Area (ERA) and see a clear recognition for the leading role that universities of technology can play in this process. CESAER has identified four key areas for action: i) Researchers and Research Careers, ii) Knowledge Transfer and Open access, and iii) Cross Border Cooperation, in order to contribute to the development as set out in the communication *A Reinforced European Research Area Partnership for Excellence and Growth*.

As IDEA League our ambition is to drive the agenda for excellence in education and research. Our main concern is a high level of quality and its continuous improvement through our joint actions and activities. It is this agenda that we bring to CESAER together with the determination to make the step from statements to implementation. Examples of our current involvement in bringing forward the ERA with tangible projects are listed below:

Active Membership: As in IDEA League, we expect the membership in CESAER to be carried out in an active way in which our partner universities take on responsibility in actions and activities. The IDEA League members are actively involved in CESAER, its various boards and task forces. For example, all partners are represented in the Task Force Human Resources, in order to share our knowledge on institutional human resource strategies, as this will be a key issue for the free mobility of researchers across Europe. Moreover, the president-elect of CESAER is Karel Luyben, the rector of the IDEA League partner university TU Delft.

Educating the researchers of the future: In 2004 the IDEA League has established a grant scheme for Bachelor, Master and PhD students of our partner universities. Over 500 monthly stipends have been awarded for a research exchange at the partner universities. In addition, each year the IDEA League offers a summer school programme topics ranging from entrepreneurship education to ethical problem solving workshops all the way to research on the global challenges. Furthermore, the IDEA League supports the collaboration of the students of the partner universities by funding their activities from a central budget. In 2005, the IDEA League partners have developed one of the first trilateral Master programmes in Europe- the Master in Geophysics. Course material will soon be made available via Open Courseware or Massive Open Online Courses.

Cooperation without boundaries: The IDEA League has designed a Doctoral School which combines the search for solutions for global challenges with innovative Doctoral training. For 2012-13, the pilot programme was on Ageing and Sustainability. For 2013-14, the programme will be on Sustainable Urban Systems. The selected PhD students have the chance to take up the research issue as a collaborative and interdisciplinary project, in an international environment. The programmes of our Doctoral School are unique, integrated partnerships, conducted in close cooperation with our Asian partner network ASPIRE with the members Hong Kong University of Science and Technology, KAIST, Nanyang, TokyoTech and Tsinghua University for whom we are serving as a model of European cooperation.

Sincerely,



Ralph Eichler
President of IDEA League
President of ETH Zürich

NORDIC FIVE TECH

Helsinki, 13 June 2013

Director-General Robert-Jan Smits
Directorate-General Research and Innovation
European Commission
Square Frère Orban, 10 (ORBN)
B-1049 Brussels
Belgium

The Nordic Five Tech endorsement letter of the CESAER Statement on the European Research Area

Nordic Five Tech (N5T) is an exclusive, strategic alliance of the five leading technical universities in Denmark, Finland, Norway and Sweden. The goal of the alliance is to utilize shared and complementary strengths and create synergy within education, research and innovation.

The Nordic Five Tech universities - Aalto University, Chalmers University of Technology, Technical University of Denmark (DTU), KTH Royal Institute of Technology and Norwegian University of Science and Technology (NTNU) - are active individual members of CESAER. In partnership with all members of CEASER they are committed to the implementation of its Statement on ERA sent to the Commissioner by CEASER President Marco Gilli.

N5T is a strategic partnership of the above mentioned universities and is based on Nordic values and a common mission to serve the society through technological and scientific development and the education of high class engineers.

The specific aims of N5T are to become the Nordic check point for Nordic and international M.Sc. students in engineering, to increase the mobility of staff and students within N5T, to improve the competitive edge and acknowledgement for high quality in education, research and innovation, and to take advantage of the "N5T extended campus" in terms of activities, infrastructure and competence available within the alliance.

The N5T ambition is supported by the establishment of joint international M.Sc. programmes, shared recognition of bachelors' degrees, mutual learning and peer evaluation activities, and network activities to stimulate collaboration in research and education.

The N5T network is fully aware that the strengthening of the European Research Area is an essential prerequisite to achieve its goals. N5T recognizes the key role of TU's across Europe in the reinforcement of ERA. Within this context, it considers that the "CESAER actions towards ERA", specified in the CESAER Statement addressed to the Commissioner, provides ambitious and highly relevant contributions to the priorities outlined in the Commission Communication on ERA which bring important added value to existing stakeholder commitments. Therefore, the N5T university network wishes to enthusiastically endorse the above mentioned CESAER actions and to state its intentions to facilitate its implementation through its own collaborative activities.

Sincerely yours,



Tuula Teeri
President, Nordic Five Tech (N5T)