PRE ANNUAL REPORT

2013

PRE
THE EUROPEAN REFRACTORIES
PRODUCERS FEDERATION
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Dear Members,

In 2013 PRE was pleased to celebrate its 60th anniversary. To mark the important year, the association was present at several international conferences and events. The PRE General Assembly was held in Berlin, Germany with over 60 participants. PRE represents 12 national associations in 16 European countries as well as the four multi-national groups which are direct members of PRE for their European activities.

Over the past year work continued on a wide range of policy issues such as energy, carbon footprinting, eco-design, Horizon 2020 and the research project to improve testing methods. In addition to regular meetings with PRE members and European institutions, PRE organised a number of ad-hoc meetings with downstream user representatives, especially in the field of its REACH and SPIRE activities.

PRE also upheld its policy of actively promoting the importance and strategic role of the European refractory industry both at European and global level. As a matter of fact, a large majority of the world-leading refractory companies are European.

In addition to regular meetings and conferences, PRE actively promoted the first worldwide refractory industry meeting alongside the 2013 UNITECR conference in Victoria, Canada. The meeting was attended by 20 representatives of continental or national associations as well as CEOs from world-leading companies. The meeting marked the creation of World Refractories Association (WRA). The aim of this association will be to exchange information on aggregated statistics, regulatory trade policies, regional and national policies in the fields of environment, energy, health and safety, industry standardisation activities and a possible revision of the HS codes.

These and other activities are further detailed within the report.

Last but not least, it is important to remember that the success of PRE relies on the manpower and expertise provided by its members. Thanks to the continued engagement of our national associations and direct members we are able to inform European institutions and regulators about the economic importance of the European refractory industry and promote the future development of the European refractory industry.

Thank you for your support, and I hope that you will appreciate this 2013 edition of the PRE annual report.

Yours sincerely,

François Wanecq
President PRE
PRE, the European Refractories Producers Federation, is the European refractory industry liaison office located in Brussels. It was founded in 1953 and offers a European platform on which its members can exchange views and experiences in the common interest.

PRE has no commercial aim. In the scope of EU legislation and standardisation, its mission is to promote the interests of European Refractory Producers. The activities of the federation are aimed at achieving these purposes through working with the European institutions (European Commission, European Parliament and the Council), and a wide range of stakeholders such as the European Committee for Standardization (CEN), the Confederation of European Business (BusinessEurope), and other EU associations such as Eurofer (steel industry), CEMBUREAU (cement industry), CEFIC (chemical industry), IMA-Europe (industrial minerals), Euromines (European mining industry), etc. Environmental and technical questions of importance are treated by the PRE Technical Committee and its various Working Groups.

PRE is a member of Cerame-Unie aislbl, the European Ceramic Industry Association. Through Cerame-Unie the interests and concerns common to the whole of the ceramics industry are communicated to the European institutions.
3. PRE Membership

PRE represents:

12 National Associations (representing 16 countries, 160 companies, half of which are Small and Medium sized Enterprises)

and

4 Direct Members (multinational groups):

Calderys
Magnesita
Refratechnik
Vesuvius

Austria
FACHVERBAND BERGBAU STAHL
Wiedner Hauptstrasse 63
A - 1045 WIEN
Mr R. STIFTNER
Tel. +43 5 90 900 3310
Fax +43 5 90 900 3378
office@bergbaustahl.at
www.bergbaustahl.at

FACHVERBAND DER STEIN- UND KERA-MISCHEN INDUSTRIE
Wiedner Hauptstrasse 63
A - 1045 WIEN
Mr C. HENNRICH
Tel. +43 5 90 900 3531
Fax +43 1 5056240
steine@wko.at
www.baustoffindustrie.at
www.keramikindustrie.at

Czech Republic, Slovak Republic
ASSOCIATION OF THE CZECH AND SLOVAK REFRACTORIES PRODUCERS, AČSVŽ
P-D Refractories CZ
Nádražní 218
CZ-679 93 VELKÉ OPATOVICE
Mr L. KAŠPAR
Tel. +420 516 493 111
Fax +420 516 477 334
kaspar@mslz.cz
www.acsvz.eu

Germany
VERBAND DER DEUTSCHEN FEUERFEST-INDUSTRIE e.V. VDFI
An der Elisabethkirche 27
D - 53113 BONN
Mr E. SENK
Tel. +49 228 91508 21
Fax +49 228 91508 55
info@feuerfest-bonn.de
www.feuerfest-bonn.de
France
SYNDICAT NATIONAL DES INDUSTRIES FRANCAISES DE PRODUITS REFRACTAIRES, SNIFPR
114, rue La Boétie
F - 75008 PARIS
Mrs D. PALOUX-HUSSON
Tel. +33 1 58 18 30 40
Fax +33 1 42 66 09 00
snifpr@ceramique.org
www.refractaire.org

Italy
CONFINDUSTRIA CERAMICA
Settore Refrattari
Viale Monte Santo 40
I - 41049 SASSUOLO (Mo)
Mr L. GALASSINI
Tel. +39 0536 818 111
Fax +39 0536 806 828
info@confindustriaceramica.it
www.confindustriaceramica.it

Nordic (Denmark, Finland, Norway, Sweden)
PRE NORDIC GROUP
Sibelco Nordic Oy Ab
Ågatan 48
PO Box 14142
SE - 40020 GOTHENBURG
Mr B. POKORNY - Secretary
Tel. +46 31 733 2238
Fax +46 31 733 2202
info.molndal@sibelco.com

Poland
STOWARZYSZENIE PRODUCENTOW MATERIAŁOW OGNIOTRwałYCH, SPMO
Ul. Toszecka 99
PL - 44 101 GLIWICE
Mr J. CZECHOWSKI
Tel. +48 32 270 1919
Fax +48 32 270 1934
spmo@imo.gliwice.pl
www.spmo.gliwice.pl

Slovenia
GOSPODARSKO INTERESNO ZDRUŽENJE PROIZVJALCEV OGNJEVZDRŽNE KERAMIKE , ZPOK
Kolodvorska ulica 3A,
SI - 6215 Divača
Mr E. ZOBEC
Tel. +386 5 739 57 60
Fax +386 5 763 02 35
info@sevenrefractories.com

Spain, Portugal
ASOCIACION NACIONAL DE FABRICANTES DE REFRACTARIOS, ANFRE
c/. Ferraz n° 11-3° Dcha.
E - 28008 MADRID
Mr J. de LUIS FERRERAS
Tel. +34 91 559 05 75
Fax +34 91 559 05 75
anfre@anfre.com
www.anfre.com

Turkey
TÜRKIYE SERAMİK FEDERASYONU, SEREF
Buyukdere Cad. No :85 Stad Han
Kat :4 Mecidiyekoy
T - ISTANBUL
Mr G. SAATCIÖGLÜ
Tel. +90 212 266 52 54
Fax +90 212 266 51 23
germiyan@serfed.com
www.serfed.com

Great Britain
BRITISH CERAMIC CONFEDERATION, BCC
Federation House
Station Road
ST4 2SA STOKE-ON-TREND
Mrs L. COHEN
Tel. +44 1782 744 631
Fax +44 1782 744 102
bcc@ceramfed.co.uk
www.ceramfed.co.uk
Yearly statistics on workforce, production and sales in the refractory industry in Europe are compiled by the PRE Secretariat with the data supplied by the national associations, and are presented at the PRE General Assembly. These statistics provide information on the different product groups on a country level and are available for members only.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce (long-term)</strong></td>
<td>21.074</td>
<td>18.879</td>
<td>18.929</td>
<td>19.794</td>
<td>18.023</td>
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<tr>
<td><strong>Production (1,000 tons)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total production</td>
<td>4.618</td>
<td>3.520</td>
<td>4.122</td>
<td>4.388</td>
<td>3.918</td>
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<tr>
<td>Shaped products</td>
<td>2.654</td>
<td>2.015</td>
<td>2.312</td>
<td>2.434</td>
<td>2.187</td>
</tr>
<tr>
<td>Unshaped products</td>
<td>1.964</td>
<td>1.505</td>
<td>1.810</td>
<td>1.954</td>
<td>1.731</td>
</tr>
<tr>
<td><strong>Sales (Mln €)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sales</td>
<td>3.351</td>
<td>2.688</td>
<td>3.170</td>
<td>3.535</td>
<td>3.360</td>
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<tr>
<td>Shaped products</td>
<td>2.231</td>
<td>1.717</td>
<td>2.074</td>
<td>2.284</td>
<td>2.201</td>
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<tr>
<td>Unshaped products</td>
<td>977</td>
<td>835</td>
<td>961</td>
<td>1.118</td>
<td>1.026</td>
</tr>
<tr>
<td>Unspecified</td>
<td>143</td>
<td>136</td>
<td>135</td>
<td>133</td>
<td>133</td>
</tr>
</tbody>
</table>

*The data presented are those of the PRE members only, PRE non-members are estimated to account for a further 20% of the workforce and 15% of the turnover.*

**End-use in tons**

*Total 2012: 3.6 million tons*
5. PRE Activities

PRE Annual Congress and General Assembly

The 2013 PRE Congress took place in Berlin from 5 to 7 June, kindly organised by the German Refractories Association. More than 60 participants from 13 different countries attended the Congress on the occasion of PRE’s 60th anniversary. At the PRE Economic Committee Mr Kerkhoff, President of the German Steel Federation and Chairman of the Steel Institute VDEh, gave a keynote presentation on “The steel industry in Germany – opportunities and threats”. The General Assembly then discussed a wide variety of topics ranging from trade over environment to organisational and financial matters. Special attention was paid to the work of the PRE Technical Committee and particularly the outcome of the PRE carbon footprint exercise as well as the latest Cerame-Unie activities. The gala dinner at the Schloss Charlottenburg, a visit to the Egyptian Museum and boat tour on the river Spree completed the social programme.

PRE Executive Committee

The PRE Executive Committee meets several times a year and is composed of representatives of the six largest national associations and the four direct members. This Committee sets the priorities for the PRE work plan, follows-up on the activities of the different PRE Working Groups and Committees and prepares the financial and regulatory aspects of the PRE General Assembly. The PRE Executive Committee is chaired by the PRE President.

In 2013, members of the PRE Executive Committee were:

- François Wanecq - PRE President / Vesuvius plc
- Astrid Volckaert - PRE Secretary-General
- Giorgio Cappelli/Franz Buxbaum - Austria (RHI AG)
- Didier Pessiot - France (IFB Refractories)
- Thomas Seger - Germany (RHI Urmitz AG & Co. KG)
- Cesare Pegoraro - Italy (Keratech S.p.A.)
- Janusz Suszczyński - Poland (SPMO)
- José Maria Dominguez - Spain (Refractarios Alfran S.A.)
- Grant Rennison - Calderys Refractory Solutions
- Michael Oberhummer - Magnesita Refractories GmbH
- Bernd Scheubel - Refratechnik Holding GmbH

PRE Technical Committee and Environment WG

European funding for research: In March 2013, the European Commission accepted to fund a refractory research project under the 7th Framework Programme funding scheme for research for the benefit of SME associations. The overall budget for the project is € 1.6 million, of which the EU contributes € 1.25 million. The awarded project brings together 13 partners including RTDs and SME companies. The project will be coordinated by ECREF, the European Centre for Refractories, located in Germany. PRE will be responsible for the dissemination of the results of the project.
The central objective of the project is to improve, promote and ensure the reliability, precision and efficiency of the current European testing standards that form the base of the technical data sheets for refractory products. The key approach will be an extensive investigation of the current EN testing methods, the design of experiments and execution of interlaboratory tests, more specifically collaborative tests. In a first step, the project focuses on the five most commonly used testing methods used to measure six physical properties of refractories: bulk density, open porosity, cold crushing strength, modulus of rupture, permanent linear change and refractories under load.

The project started in the second half of 2013 and will run for 24 months. It is the first multinational refractory project supporting SMEs that has been accepted for European funding.

**Carbon footprint for refractories:** PRE presented the results of its first product carbon footprint exercise in September 2013. The outcome is based on data collected from 40 individual sites, representing over 40% of the total annual turnover of the PRE membership. This exercise is a gate-to-gate exercise, focusing on the different refractory product production stages. The product carbon footprint was calculated for five product groups. The final report is available on the PRE website.

The results documented in the report show that the product carbon footprint shows a direct correlation with the energy intensity, which in turn is mainly dependent on the kiln load. The exercise also demonstrated the significant impact of environmental requirements, such as mandatory post-process combustion of waste gas, which can increase energy intensity by up to 30%.

The UK consultancy Carbon Trust supported the development of this report. This important exercise increases general knowledge of the European refractories industry and helps to analyse their individual environmental positions. It will also support PRE members in their communication with refractory-using industries and help these industries in turn to accurately calculate a carbon footprint for their products. It is therefore important to note that the specific resource consumption of European refractory products is very low, with only 10 kg of refractories required per tonne of steel.

**ESTEP meeting:** PRE members and technical institutes met with representatives of the European Steel Association (Eurofer) and the European Steel Technology Platform (ESTEP) in June 2013. The aim of the meeting was to present the different associations and get a better understanding of the research and innovation strategy of the steel sector. The steel industry and the refractory industry (through Cerame-Unie) are partners in SPIRE, a Public-Private Partnership (PPP) proposal focusing on research and innovation in the process industries. This PPP will run from 2014 to 2020 and will fund cross-sectoral projects. In 2012, ESTEP updated its strategic research agenda which can be found on their website. There was also an open invitation for refractory companies to join the ESTEP working groups.

**Refractory Ceramic Fibres:** In June 2013, ECHA published its fifth draft recommendation for the inclusion of substances in the REACH Annex XIV, the authorisation list. (Zirconia-) Aluminosilicate Refractory Ceramic Fibres (RCF) are among the substances put forward for prioritisation. As many ceramic companies use RCF in their kilns, they are affected by this prioritisation. PRE/Cerame-Unie provided its input during the 3-month consultation. PRE/Cerame-Unie also organised a number of meetings with various downstream user industry associations affected by the prioritisation of RCF and helped them to submit their comments.

In December the ECHA Member State Committee recommended prioritising both types of Refractory Ceramic Fibres. However, the UK, Austria, Hungary and the Czech Republic stated that this recommendation might be flawed for several reasons. The dossier is now in the hands of the European Commission and Member State authorities who will the final decision.
PRE Events and communication

Five newsletters were published and circulated to PRE members in 2013. These newsletters contain information on PRE and Cerame-Unie events, EU policy developments and interesting publications.

PRE contributed to a number of articles in the specialised press:

- Interview with PRE President Mr Wanecq - Refractories Worldforum - March 2013
- PRE calculates European carbon footprint for refractory products - Refractories Worldforum November 2013

In 2013 PRE celebrated its 60th anniversary and participated in a number of activities to mark the occasion:

- In May PRE participated in the 15th International Scientific Conference, organised every other year in Wisla-Jawornik, Poland, on “Refractory materials: manufacture, methods of testing, application”.
- PRE and ECREF (European Centre for Refractories) jointly organised the 1st common European seminar on refractories entitled, “Refractories–key technologies and its applications”, in early September. The three-day seminar welcomed experts from the field and targeted new employees in the refractories and related industries.
- The 13th UNITECR Conference, a technical conference on refractories, took place in Victoria, Canada in September. UNITECR stands for Unified International Technical Conference on Refractories and attracts between 600 and 900 technical experts from the refractory and downstream industries. PRE participated with a presentation entitled, “Raw materials for refractories: the European perspective”.
- PRE also gave a presentation on the association and on raw materials for refractories in October 2013 at a conference on raw materials in Castellón, Spain organised by the Spanish refractory association ANFRE.

The worldwide refractory industry held a first meeting on 12 September 2013 in Victoria, Canada, in conjunction with the UNITECR technical conference. The meeting was organised by PRE and attended by 20 representatives of continental or national associations from the US, Latin America, Europe, India, China and Japan as well as CEOs from world-leading companies. At the meeting the creation of a World Refractories Association (WRA) was agreed. Such an association can exchange information on aggregated statistics, regulatory trade policies, regional and national policies in the fields of environment, energy, health and safety, industry standardisation activities and a possible revision of the HS codes. A second preparatory meeting took place in April 2014 in Brussels.
CU Meetings
Throughout the year, Cerame-Unie strengthened its contacts with European policy makers. Commission representatives participated in CU Committee meetings, CU Presidents met with the Commission in April, regular bilateral meetings on specific dossiers were held with DG Trade, members of the European Parliament and Council. Last but not least, on 12 March 2013 Cerame-Unie organised a dinner debate on EU research policy between a Head of Unit at DG Research and Innovation and representatives from the ceramic industry.

European Parliament Ceramics Forum (EPCF)
Cerame-Unie and six other trade associations co-organised a European Parliament Ceramics Forum origin marking breakfast debate in Strasbourg in July 2013. Members of the European Parliament and colleagues from other European industries attended this event alongside CU members from concerned sectors.

On 17 September 2013 more than 50 representatives from industry and EU institutions participated in the European Parliament Ceramics Forum dinner debate “Empowering ceramic competitiveness—the challenge of energy prices for the European ceramic industry”. The event provided a good opportunity to discuss several important EU initiatives in the field of climate and energy.

The 14th Plenary meeting of the EPCF, which took place in November, covered key topics such as the EU climate and energy policy, the Product Safety and Market Surveillance Package and the competitiveness of SMEs. MEPs, Commission officials and industry representatives discussed these significant questions and what they mean for the ceramic industry. The EPCF, chaired by MEPs Malcolm Harbour and Michael Cashman, was concluded with a discussion on the future of the Forum after the 2014 Parliamentary elections. A reception took place following the EPCF where keynote speeches were given by Commissioner for Energy Mr Oettinger and Director General of BUSINESSEUROPE Mr Beyrer. The report is available online.

CU Ceramic Days and General Assembly
Cerame-Unie’s Ceramic Days 2013 took place in Brussels from 25 to 27 November and welcomed 150 participants from EU institutions, industry and relevant stakeholders. The Ceramic Days centred around 26 November, a day featuring the Cerame-Unie General Assembly, public conferences on trade and construction and the 14th Plenary meeting of the EPCF.

CU Communication
2013 was an active year for Cerame-Unie in terms of communication. The association published its first Newsletter in July 2013. The CU newsletter is published twice a year, in January and July. To subscribe, please do so on the CU website.

On top of a more frequently updated website, Cerame-Unie has also opened an account on Twitter. Tweets range from reporting on events and projects where CU is involved to communicating relevant EU policy developments and news from CU members or alliances. Follow us @CerameUnie.
PRE

Refractory products are a vital element in all high-temperature processes, such as metals making, the production of cement, petrochemical processes, glass and ceramics. Without refractories there would be no cars, no planes, no trains, no gas or electricity, and we would be eating from wooden plates and living in mud-brick huts.

PRE promotes the interests of European Refractory Producers and offers a platform to exchange views and experiences in the common interest.

PRE is a member of Cerame-Unie AISBL.