



MemBridge – Bridge between environment and industry designed by membrane technology

RTDCA-Project 7th FP, CA, Contract No. CSA-CA 233253

Start Date: 1st May 2009 - Duration: 24 months

Coordinator: Prof. Gilbert RIOS, CNRS

Tel: +33 (0) 4 67 14 91 40, Fax: -91 19

Email: Gilbert.Rios@iemm.univ-montp2.fr

Deliverable Report: D3.2 _WP3_YTI

“Data base”

PUBLIC

Organisation:	YTI	
Author(s):	Y.N.Karzhavin with the support of V.Nikonenko	
Deliverable No:	D 3.2	
Issue Date:	15 June 2011	
Number of pages:	7	
Identifier:	D3.2_WP3_YTI	
SUMMARY:	<p>This report presents the database on the industrial enterprises in South and other regions of Russia involved with membrane technologies, with their main interests and applications.</p>	
CIRCULATION:	<p>EMH: G.M. RIOS, EMH members – EC: H. WESSEL, P. CHANDLER – TIPS: V. VOLKOV, V. TEPLIAKOV, G. TERESHCHENKO, A. VOLKOV – VLADIPOR: V. G. DZYUBENKO – KUBSU: V. NIKONENKO, E. BELOVA, N. PISMENSKAYA – MEGA: L. NOVÁK, A. ČERNÍN – MTB: A. CHYBINSKI, W. PIATKIEWICZ – CTI: E. LOURADOUR, N. DELBIANCO, D. DHALER – DECHEMA: J. WEITKAMP, A. BAZZANELLA – YTI: Y. N. KARZHAVIN – SHUBNIKOV INSTITUTE: V. BEREZKIN, B. MCHEDLISHVILI – IGIC RAS: A.YAROSLAVTSEV – AQUAMARIJN BV: C Van RIJN – MTIE: V.ZABOLOTSKY - MTCA: A.TSKHAY – RTTN: O.TARASOVA, A.YANOWSKY – UM2: S. GUEDIDI, J.M.PORTEFAIX</p>	



Document history and validation

When	Who	Comments
<i>08-06-2011</i>	<i>V.N.Karzhavin</i>	<i>OK</i>
<i>10-06-2011</i>	<i>V.Nikonenko</i>	<i>OK</i>
<i>15-06-2011</i>	<i>S.Guedidi and G.M.Rios</i>	<i>OK</i>

Author(s): V.N.Karzhavin	Approved by the Coordinator <input checked="" type="checkbox"/>
Reviewer: <i>S.Guedidi and G.M.Rios</i>	Date: 15 June 2011



Beneficiaries acronym list

During the Membridge project, the different beneficiaries will be represented by the following acronyms:

Beneficiary Number	Beneficiary name	Beneficiary short name	Country
1 (Coordinator)	European Membrane House	EMH	Belgium
2	N.S. Kurnakov Institute of General and Inorganic Chemistry, Russian Academy of Sciences	IGIC RAS	Russia
3	A.V. Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences	TIPS	Russia
4	Joint Stock Company Scientific and Technical Centre Vladipor	VLADIPOR	Russia
5	A.V. Shubnikov Institute of Crystallography, Russian Academy of Sciences	SHUBNIKOV INSTITUTE	Russia
6	Kuban State University	KUBSU	Russia
7	MEGA a.s.	MEGA	Czech Republic
8	MTB Technologies Sp. Z o.o	MTB	Poland
9	Aquamarijn Micro Filtration BV	AQUARIJN	The Netherlands
10	Céramiques Techniques et Industrielles S.A.	CTI	France
11	Membrane Technology Innovation Enterprise	MTIE	Russia
12	Regional Inter-branch Centre Yugtechinform	YTI	Russia
13	Membrane Technologies C.A.	MTCA	Kazakhstan
14	DECHEMA Gesellschaft für Chemische Technik und Biotechnologie e.V.	DECHEMA	Germany
15	Russian Technology Transfer Network	RTNN	Russia
16	Université Montpellier 2 Sciences et Techniques	UM2	France



Report description

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1. Introduction

The data base of scientific and research institutes, manufacturing and agricultural enterprises and private entrepreneurs of the South of the Russian Federation, which are prospective consumers of membrane technologies, has been created by CJSC REGIONAL INTER-BRANCH CENTRE YUGTECHINFORM (YTI) according to the Task 3.1 with rubrics of EMH and EMS.

All the information is given in English and partially in Russian languages.

The YTI's tasks included the search of new end-users; the dissemination of project results, in particular, bringing the information about novel technologies to regional authorities, enterprises and mass media; planning for further realization (within other projects) of partnering conference, summer schools, training events and other.

For that a data array was done.

2. Detailed description

The database that is proposed consists of 514 enterprises whose activities can be improved using membranes. Their location is mainly in the South of Russia: Astrakhan, Krasnodar, Rostov, Stavropol and Volgograd regions, Republics of Ciscaucasia: Adygei, Dagestan, Ingushetia, Kabardino-Balkaria, Kalmykia, Karachai-Cherkess, North Ossetia, Chechnya.

The database is divided into different sections according to the kind of activities: agriculture, dairy, wine production, water bottling, malting and brewing, sugar making, oil and gas processing, cement works, energy production, scientific researches, and etc. The accurate name of each company (English version /analog is given in column 3), address, form of its ownership, contact (telephone numbers and e-mail), website address (if there is any), name of the Head are given. When available, a description of the activity, a brief information about capacity / equipment and other achievements are mentioned too. In some cases there is a list of issues also that can be solved with the help of membrane technology.

A demo version is given at the Russian Membrane Network site (www.rusmembrane.net). The full information will be placed at YTI website ([//www.techresearch.ru/](http://www.techresearch.ru/)) later.

The database should be very useful for the consumers because it caps practically all spheres of activity in this region. Everybody will find here his contact point. Because in the South of Russia agriculture and related industries are strongly developed, in particular wine production, a lot of attention has been paid to this sector of economy (174 of the companies included in the database



are fabricators of a variety of drinks, vodka, brandy, beer, water, etc., 86 – wineries). Problems of wine industry, which could be solved by using membranes, are numerous:

1. Regulation of sugar concentration in wine
2. Improvement of organoleptic characteristics of wine
3. Preparation of aprotogenic water for cleaning bottles
4. Decrease of the iron concentration in wine
5. Microfiltration of liquids (water, wine, brandy)
6. Rejection of the use of preservatives
7. Lighting, deacidification of wine
8. Stabilization of wine
9. Removing of the excess of cream of tartar, mineral salts
10. Adjustment of pH and mineral composition
11. Treatment of wastewater obtained during cleaning containers and equipment. Creation of a water reuse technological cycle.

And there's scope for action. The same has been also done for others sectors: brewing, dairy, canning industry, water treatment, and etc.

(Note that the wine industry is quite sensible to innovations, and that most companies follow the old technologies. But time has made changes ; for example, about ten years ago in Krasnodar region the first tentative to apply French oenology technology was undertaken at some wineries. Now about 50% of wine volumes produced in Kuban are made according to this technology.)

3. Example of achievement

An example about the benefits of contacts (which should be amplified by a proper use of the database): the participation of Eurodia (the French company specialized for applications of membrane technologies to agro-chemical industry : [see//www.eurodia.com](http://www.eurodia.com)) at the first Membridge meeting in Tuapse (2009) has led to various positive outcomes. Since February 2010 a demonstrative electromembrane unit is working at Myskhako winery, not far from Novorossiysk city. A research-industry partnership is also developing between Eurodia and Krasnodar MemBridge partners , with two new projects: one with KubSU concerning the development of new anion-exchange membranes, and the other with Innovation Enterprise Membrane Technology



aimed at the development of new bipolar membranes and related electro dialysis modules for “green” chemistry. The latter will be financed jointly by OSEO (France) and FASIE (Russia) in the framework of a Russian-French program for supporting SMEs.