

# Report on the GEMex project website

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Version 1.0

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CNR

Work package 2

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Website: <http://www.gemex-h2020.eu>



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## The project website

This is to certify that the GEMex Project website (D2.2) is online and can be reached at the link <http://www.gemex-h2020.eu>

The website structure is complete, and the site is ready to be continuously upgraded.

The home page presents a main menu on the top to link the users to the main information related to the GEMex project:

- ‘What we do’ reports key points of the Enhanced Geothermal Systems and Super-Hot Geothermal System under characterization by the project
- ‘Project’ item describes the three pillars leading the GEMex project and the topics covered by the Work-packages.
- ‘Partners’ link drives the users to a map including all the participants in the GEMex project
- ‘Results’ reports a table with all the deliverables foreseen by the project. Each deliverable will be marked in green once it will be delivered. It will be available also a link to the executive summary of the deliverable.
- ‘Links’ lead the users to a special page that collects the key information of the running geothermal research and innovation project funded by the European Commission.
- ‘News’ will collect all the news from the project
- OADB allows users to get the Opea Access Database, which store the data collected and elaborated during the GEMex project
- ‘VRE’ is the connection to the Virtual Research Environment that acts as project partner’s area, which enables the continuous exchange of internal information between the consortia.

The home page hosts four dedicated links to the identified target group. By these links the users will get a dedicated page including the project results that they concern.

In the home page are also collected the most recent news as well as most important information on GEMex project as the ‘Ambition’ and the descriptions of the two geothermal sites under investigation.

Here below the home page (figure 1), project consortia page (figure 2), GEMex private part served by VRE (figure 3) as examples:



## Resource assessment

at two unconventional geothermal sites, for EGS development at Aboaculco and for a superhot resource near Los Humeros



### Public Authority

320x150

I'm from Public authority  
See results for this target group

### Industry

320x150

I'm from Industry  
See results for this target group

### Research centers

320x150

I'm from Research centers  
See results for this target group

### Citizens

320x150

I'm from Citizens  
See results for this target group

### News

## Kick off meeting in Morelia

GEMex kick off meeting took place in Morelia, Mexico on November 15, 2016. GEMex (Cooperation in Geothermal energy research Europe-Mexico for development of Enhanced Geothermal Systems and Superhot Geothermal Systems) brings together partners from Europe and Mexico to develop innovative methods for accessing geothermal resources in variable geological formations. The ultimate objective is to reduce costs for both geothermal electricity and heat production.

[Read more ...](#)

## Ambition



GEMex has the ambition to bring together the extended Mexican know how of discovering, developing, and deploying conventional geothermal energy systems with a variety of European expertise from similar geothermal energy systems (Italy, Iceland etc.), of developing EGS technology, and finding new approaches to make use of super-hot geothermal systems. The approach should lead to concepts for extended future deployment of geothermal energy in Europe and Mexico. This will be done by common site developments, one for hot-EGS (Enhanced Geothermal Systems) and one for SHGS (Super-Hot Geothermal Systems). This approach will open synergies of competencies and technologies and will lead to an acceleration of the learning curve for geothermal development. Potential drill paths will be redefined in the target areas in order to maximise the scientific output. The findings will be compared to extended experiences in EGS projects developed in the target areas in order to maximise the scientific output. The findings will be compared to extended experiences in EGS projects in Europe and elsewhere and with the few SHGS-projects in Europe (IDDP1) and Japan (Kakkonda).

[super hot system](#) [enhanced geothermal system](#) [commercial geothermal system](#)

## GEMex ID-CARD

Acronym	GEMex
Title	Cooperation in Geothermal energy research Europe-Mexico for development of Enhanced Geothermal Systems and Superhot Geothermal Systems
Topic	LCE-23-2016
Call identifier	H2020-LCE-2016-RES-CCS-RIA
Grant Agreement number	727550
Duration	36 Months
Start date	01/10/2016
Estimated project cost	9'999'792.50 €
Requested EU contribution	9'999'792.50 €

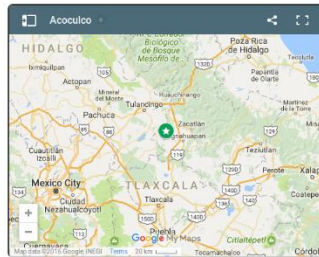


## Los Humeros

The geothermal system at Los Humeros is currently exploited. The northern part of the area, however, is much hotter (>380°C) than the wells used for production today. The development of this part of the reservoir presents a challenge, both because of the high temperature and because of the water chemistry. In addition, the area has only been poorly characterised by geophysical and geological surveys. Therefore our understanding required for the development and exploitation of this super-hot resource is limited. The uncertainty about the potential of this resource and the technical challenges involved with the development of such a super-hot geothermal system currently prevent its economic development.



## Acoculco

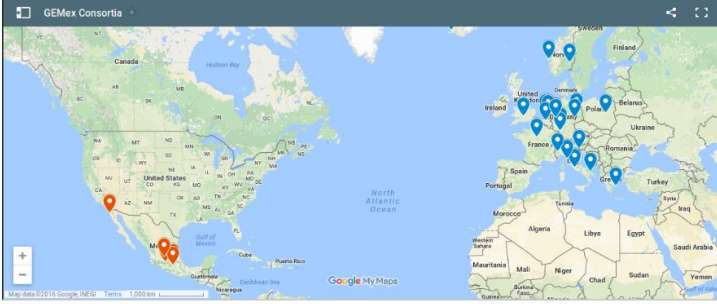


The site at Acoculco, foreseen for EGS development, has been explored by two deep wells drilled by the CFE (Comisión Federal de Electricidad). These wells found hardly any fluids but temperatures around 300°C at a depth of 2 km. The lack of fluids at depth is surprising, as this area of Mexico is subject to abundant precipitation. Nonetheless, the high temperature gradient makes it an interesting target for exploitation and the lack of a clear resource makes it an ideal region for testing our knowledge on how to constrain an area where EGS can be performed.

Main objective	Project info	EU coordinator	MEX coordinator
<ol style="list-style-type: none"> <li>To speed up the geothermal development in Mexico and beyond</li> <li>To reduce pre-drill mining risk by in depth understanding of the geological context of the resource</li> <li>To improve geophysical imaging and detection of deep reservoir structures by novel approaches</li> <li>To improve predictive models for reservoir characterisation and simulation</li> <li>To provide conceptual models for sustainable site development, including</li> </ol>	<p><b>EU info:</b>  <b>START DATE:</b> 01 Oct 2016  <b>DURATION:</b> 3 years  <b>EC CONTRIBUTION for EU consortium:</b> 9'999'792.50 euro  <b>MEX info:</b>  <b>START DATE:</b> 01 Oct 2016  <b>DURATION:</b> 4 years  <b>CONTRIBUTION for MEX consortium:</b> 0'000'000.00 euro</p>	<p>For any question on this project, please contact: <b>Dr. David Bruhn</b> (Scientific Coordinator)  <b>GFZ</b>  <b>HELMHOLTZ ZENTRUM POTSDAM</b>                      Telegrafenberg 17, Potsdam 14473, Germany                      Q +44 0000000000                      F +44 0000000000                      M +44 0000000000                      e-mail: dbruhn[at]gfz-potsdam[dot]de</p>	<p>For any question on this project, please contact: <b>Dr. Aida López Hernández</b> (Scientific Coordinator)  <b>UMSNH</b>  <b>Universidad Michoacana de San Nicolás de Hidalgo</b>                      Gral. Francisco J. Mugica S/N, Ciudad Universitaria, Fraccionamiento Real                      Universidad, 58030 Morelia, Mich., Mexico                      Q +52 443 322 3500                      F +52 0000000000                      M +52 0000000000                      e-mail: aidalopez[at]gmail[dot]com</p>
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Figure 1: Home page

## Consortia



Symbol	Country	Partner	Legal Address	Role
	Germany	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHES GEOFORSCHUNGSZENTRUM - (GFZ)	Telegrafenberg 17, Potsdam 14473, Germany	Coordinator
	Iceland	ISLENSKAR ORKURANNISKNIR - (ISOR)	Grensasveg 9, Reykjavik 108	Partner
	Netherlands	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - (TNO)	Anna Van Buerenplein 1, Den Haag 2595 DA	Partner
	Italy	UNIVERSITA DEGLI STUDI DI BARI ALDO MORO - (UNIBA)	Piazza Umberto I 1, Bari 70121	Partner
	Netherlands	UNIVERSITEIT UTRECHT - (UU)	Heidelberglaan 8, Utrecht 3584 CS	Partner
	Germany	RHEINISCH-WESTFÄLISCHE TECHNISCHE HOCHSCHULE AACHEN - (RWTH)	Templergraben 55, Aachen - 52062, Germany	Partner
	Italy	NATIONAL RESEARCH COUNCIL OF ITALY - (CNR)	Piazzale Aldo Moro 7, ROMA - 00185, Italy	Partner
	Germany	TECHNISCHE UNIVERSITÄT DARMSTADT - (TUDA)	Karolinerplatz 5, Darmstadt 64289	Partner
	France	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES - (BRGM)	3 Av. Claude Guillemin, Orleans 45060	Partner
	Norway	INSTITUTT FOR ENERGITEKNIKK - (IFE)	Instituttveien 18, Kjeller 2027	Partner
	Greece	CENTRE FOR RENEWABLE ENERGY SOURCESAND SAVING FONDATION - (CRES)	Marathons 19th km, Pikermi 19009	Partner
	Italy	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE - (OGS)	Borgo Grotta Gigante 42/C, Sgonico-Trieste 34010	Partner
	Norway	UNI RESEARCH AS - (GIPRI)	Thormøhlens Gate 55, Bergen 5008	Partner
	Italy	UNIVERSITA DEGLI STUDI ROMA TRE - (UROMA3)	Via Ostense 159, Roma 00154	Partner
	Italy	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE - (ENEA)	Lungotevere Grande Ammiraglio Thaon di Revel 76	Partner
	Italy	SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO SANT'ANNA - (SSSA)	Piazza Martiri Della Libertà 33, Pisa 56127	Partner
	Germany	KARLSRUHER INSTITUT FUER TECHNOLOGIE - (KIT)	Kaiserstrasse 12, Karlsruhe 76131	Partner
	United Kingdom	NATURAL ENVIRONMENT RESEARCH COUNCIL - (NERC)	Polaris House, North Star Avenue, Swindon Wiltshire SN2 1EU	Partner
	Germany	HOCHSCHULE BOCHUM - (HBO)	Lennershofstrasse 140, Bochum 44801	Partner
	Italy	UNIVERSITA DEGLI STUDI DI TORINO - (UNITO)	Via Giuseppe Verdi 8, Torino 10124	Partner
	Poland	PANSTWOWY INSTYTUT GEOLOGICZNY - PANSTWOWY INSTYTUT BADAWCZY - (PIG)	Rakowiecka 4, Warszawa 00975	Partner
	Belgium	EUROPEAN GEOTHERMAL ENERGY COUNCIL,EGEC AISBL - (EGEC)	Rue D'arlon 63-67, Bruxelles 1040	Partner
	Germany	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - (UFZ)	Pemroseer Strasse 15, Leipzig 04318	Partner
	Germany	IGA SERVICE GMBH - (IGA)	Lennershofstr. 140, Bochum 44801	Partner

Figure 2: Consortia page.



The screenshot displays the GEMex private part interface. At the top, there is a navigation bar with a search box for the News Feed, a user profile for Eugenio Trumpy, and a logo for D4SCIENCE INFRASTRUCTURE. Below this is a main navigation menu with options like GEMex, Administration, Members, and Activity Tracker.

The main content area is divided into several sections:

- Statistics:** Shows 'Your Stats in GEMex' with a profile picture and activity metrics (17, 2, 0, 1, 0).
- Share updates:** A form to share updates or links, with a dropdown menu for sharing options (GEMex + Notification to members) and a 'Share' button.
- Recent Documents:** A list of documents including 'Template KOM GEMex.ppt', 'Arellano\_etal\_2015\_WGC.pdf', 'A statistics-based method f...', and 'Norini rt al 2015 JVGR Stru...'. A 'Show all ...' link is provided.
- Top Topics:** A section stating 'No Topics found in News Feed'.
- News feed:** A central feed of updates. The first update is from Katrin Kieling, dated December 13, 8:17 AM, sharing a link to 'UMSNH participa en proyecto geotérmico. En iniciativa de cooperación México-Europa - nuestravision.com.mx'. The second update is also from Katrin Kieling, dated December 02, 8:58 AM, discussing health insurance eligibility for the Project Officer. The third update is from Paromita Deb, dated December 01, 12:11 PM, mentioning uploaded papers regarding general geology of Acoculco Caldera.
- About:** A section describing the GEMex project as 'Cooperation in Geothermal energy research Europe-Mexico for development of Enhanced Geothermal Systems and Superhot Geothermal Systems'. It mentions the deployment of a Virtual Research Environment (VRE) and provides a 'See more' link.
- VRE Managers and Groups:** A section titled 'View Managers' and 'Groups in this VRE:' listing groups: BRGM, CFE, CICESE, and CIPR.

A vertical 'Report an Issue' button is located on the right side of the page.

**Figure 3:** GEMex private part serving as VRE access



Coordination Office, GEMex project

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