

International Brokerage Event  
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***CNRS - ICARE***  
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# Description of the Organization



- ICARE is a CNRS R&D institute located in Orléans, France and is active in various energy issues but mainly related to chemical conversion of energy from various fuels including organic waste
- The last EU project coordinated by ICARE (I. Gökalp) was the OPTIMASH project in FP7 on the optimization of the gasification of high ash coals (EU – India call)
- Previously coordinated EU projects were AFTUR on renewable fuels for industrial gas turbines; ACREVO on vegetable oil derived fuels for diesel engines, among others

# Description of the your research interest



- Chemical conversion to energy of gaseous and solid fuels including organic waste using clean and efficient technologies
- Renewable H<sub>2</sub> generation and conversion
- CO<sub>2</sub> capture and utilisation

- Integrated hydrothermal treatment of sewage sludge by hydrothermal carbonization (HTC) for hydrochar generation and by supercritical water oxidation (SCWO)
- The integrated process will generate hydrochars to be used for energy generation (using stand alone solid fuel combustion/ gasification systems or hybridized with CSP systems)
- SCWO treatment of the process water from HTC will further purify the water for various uses and also generate energy (to be used for the HTC process or for other uses)
- The HTC process can also be applied to generate intermediate bioenergy carriers with improved energy density and storage/ logistics characteristics from other organic waste and is in line with LC-SC3-RES-17-2019 concerning the sub-topic *Intermediate bioenergy carriers*.

# Consortium - profile of known partners *(if any)*



No	Partner Name	Type	Country	Role in the Project
01	ICARE CNRS	RTD	FR	CO
02	<b>IGDEAS A.S.</b>	SME	<b>TR</b>	<b>PARTNER</b>
03	PROSIS ENG Ltd.	SME	TR	PARTNER
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07				
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# Consortium - required partners



No	Expertise	Type	Country	Role in the project
01	HTC	SME	SPAIN	PARTNER
02	HTC	RTD	SPAIN	”
03	USED WATER MANAGEMENT	IND	VARIOUS	”
04	<b>MUNICIPALITIES</b>		<b>VARIOUS</b>	“
05	<b>CHP OPERATORS</b>	<b>IND</b>	<b>VARIOUS</b>	“
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- Optimization of the hybridization of CSP and biomass combustion/gasification systems & with geothermal power plants
- Hybridization of biomass and CSP for CHP systems will increase the availability of CSP (without storage) and allow a negative CO<sub>2</sub> CHP system and also retrofitting existing fossil-fuel driven CHP or power plants with a fully sustainable system
- Hybridization of biomass and/or CSP systems with geothermal power plants will increase the flexibility of the geothermal system and will reduce the CO<sub>2</sub> footprint for geothermal sources with high CO<sub>2</sub> emissions (such as in Turkey)

# Consortium - profile of known partners *(if any)*



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03	PROSIS ENG Ltd.	SME	TR	PARTNER
04				
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# Consortium - required partners



No	Expertise	Type	Country	Role in the project
01	BIOMASS BOILER COMPANY	SME	VARIOUS	PARTNER
02	CSP TECHNOLOGY PROVIDER	SME/ IND	SPAIN	”
03	<b>GEOHERMAL POWER PLANT OPERATOR</b>	IND	TURKEY	”
04	CHP OPERATORS	IND	VARIOUS	“
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# Recommendations

- The presentation **has to** last up to **4 minutes (maximum)**
- Do not overload your slides
- Provide weblinks to additional material
- Slides should be in English
- Do not use videos etc. – they might be not supported by the Infoday IT system
- Send your presentations in PDF format to: [CoF@turkeyinh2020.eu](mailto:CoF@turkeyinh2020.eu) until **23 September 2016.**