

CORNET/EraSME partnering event Maastricht – 20 January 2010

--- Project Idea ---

Proposal title and acronym	Gasifier for Access to Energy in Emerging and Developing Countries (GFE)
Coordinator:	XYLOWATT s.a. (Belgium)
Other applicant(s):	Université Catholique de Louvain (UCL, Belgium), Centre de coopération internationale en recherche agronomique pour le développement (CIRAD, France)
Sector	Small-scale cellulosic biomass gasification
Call of interest	<input type="checkbox"/> CORNET (cooperation between SME Associations and research organisations) <input checked="" type="checkbox"/> EraSME (cooperation between individual SMEs and research organisations)
Proposal summary:	<p>Cellulosic biomass gasification provides the highest efficiency in small-scale biomass to power applications. As such, it presents a high potential to satisfy both the electricity and heat needs of communities and small industries in rural areas in Southern Regions. This potential has however not yet materialized due to the shortcomings of the currently available technologies, in particular in terms of maintenance and environmental impact. The present project aims at overcoming these shortcomings by developing a cellulosic biomass gasifier and CHP plant adapted to the needs of emerging and developing countries: use of locally available biomass, 80% of the components manufactured locally, simple to maintain and operate, reduced emission levels and environmental impacts.</p> <p>The GFE gasifier will be developed on the basis of the experience acquired by XYLOWATT's team over the last 20 years, in particular during the development of the NOTAR® reactor (registered trademark, patents pending), a breakthrough in gasification technology that produces a high quality woodgas with very little residue (less than 50 mg/m³N tars).</p> <p>The produced gas will then be burned in engines available locally and adapted to the characteristics of the gas to produce heat and electricity, thereby providing a modular but comprehensive solution adapted to the local needs. The partners also aim at developing a business model that will be based on the participation of local counterparts and technology providers while securing the partners' interests as innovative, R&D-based SMEs.</p>

<p>Advantages for SMEs, trade or industry:</p>	<p>Increasing demand for sustainable decentralized energy solutions for the populations in emerging and developing countries ensure the market potential for the GFE.</p> <p>On the medium term, this simplified low-cost low-emission gasifier should also open new opportunities in markets in industrialized countries.</p>
<p>Profile of partners sought:</p>	<p>We are looking for partners in the following fields:</p> <ul style="list-style-type: none"> - <i>Small-scale cogeneration, engine adaptation, engine regulation:</i> Objective is to use gas or diesel engines available locally in the developing countries, adapt them to the use of woodgas if necessary, and make the link with the gasifier, which also implies the right regulation system. - <i>Open Source Business Models / Sustainable Business:</i> Objective is to ensure a fast and wide dissemination of the technology by implementing a business model that will be as open as possible, provide the highest benefits for the local populations and foster local development (including local manufacturing and operation of the gasifying and CHP units), while at the same time securing the partners' interests as innovative, R&D-based SMEs.
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