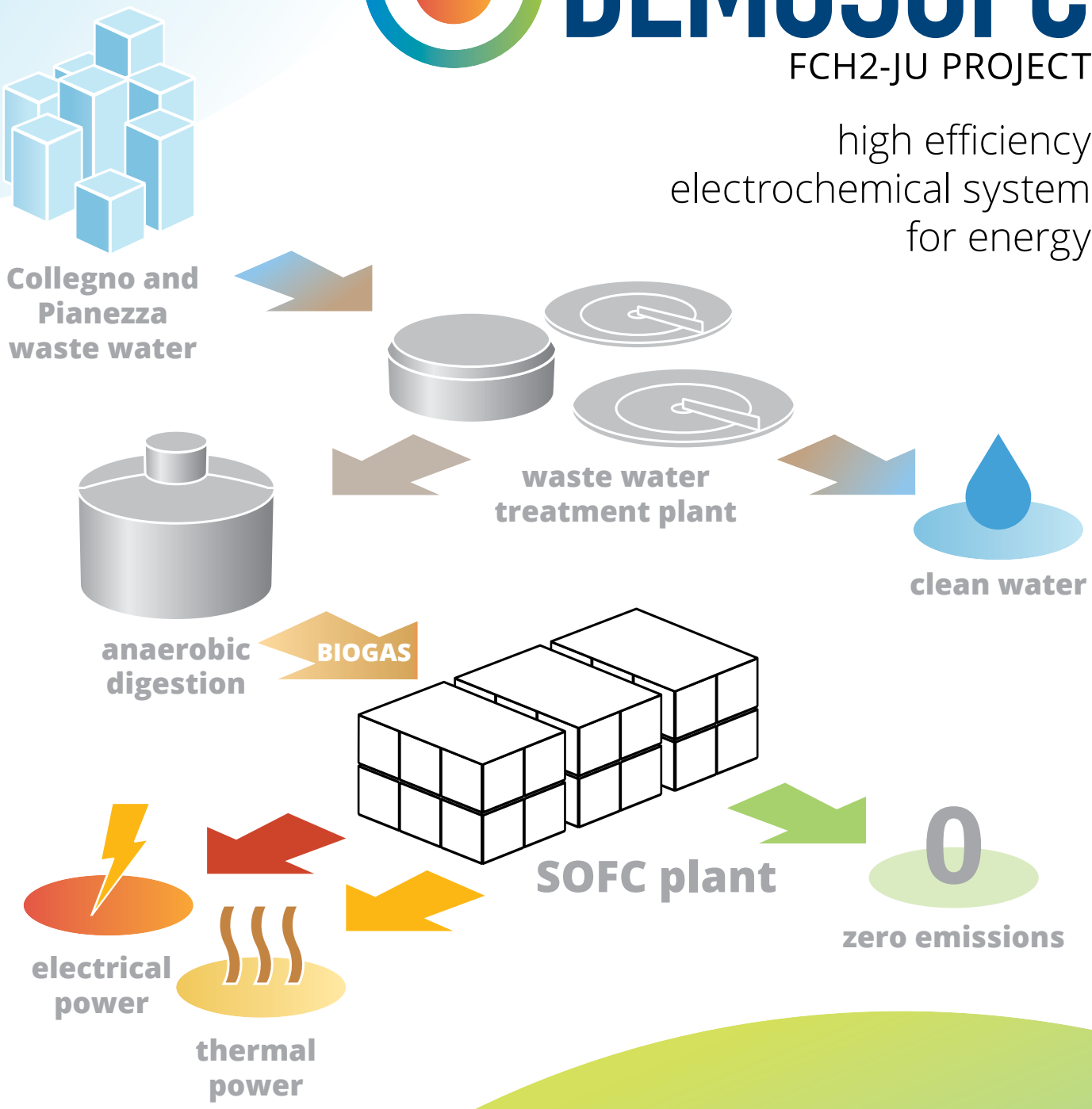
DEMOSOFC

FCH2-JU PROJECT

high efficiency
electrochemical system
for energy



OPEN WORKSHOP

September 24-25, 2015 - Turin

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OPEN WORKSHOP DEMOSOFC

BIOGAS FED FUEL CELL SYSTEMS FOR INDUSTRIAL APPLICATIONS

24th SEMPTEMBER 2015

2.00 – 6.00 P.M.

Salone di Onore, Castello del Valentino – Turin (IT)

DEMOSOFC is a new European Union financed project which involves the design and installation of a biogas fed fuel cell system, using the Solid Oxide Fuel Cell (SOFC) technology. Three modules will be installed, able to produced, in cogeneration mode, 175 kW electrical and 90 kW thermal, with a 53% electrical efficiency.

The system will be installed in the **SMAT Collegno waste water treatment plant (Turin),** where currently biogas is produced from the anaerobic digestion of sewage sludge. The fuel cell system will guarantee the supply of around 30% of the electrical needs of the site (currently covered by the grid) and 100% of the thermal needs.

The DEMOSOFC plant will be the **first example in Europe of a high efficiency cogeneration plant with a SOFC system of an industrial size fed by biogas**.

The project is coordinated by Prof. Massimo Santarelli of the Energy Department of Politecnico di Torino. The partners are, besides Politecnico, the SMAT group for Italy, the Finnish company Convion Oy, produced of SOFC systems, the Finnish research center VTT and finally the Imperial College of Science, Technology and Medicine (London).

The project has an overall budget of 5.9 million of euro and is financed by European Union with 4.2 million euro in the framework of the Horizon 2020 program, in the platform FCH-J (*Fuel Cell and Hydrogen Joint Undertaking*).

FCH FUEL CELLS AND HYDROGEN JOINT UNDERTAKING

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VTT

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The project represents a clean best practice of biogas energy exploitation thorough anaerobic digestion of urban waste water. The environmental achievements will also be fundamental, the fuel cell has near zero emissions (zero SOx, NOx, PM, VOC).

Preliminary Workshop Agenda

2.00 – 2.15 **Greetings and introduction** from the rector of Politecnico di Torino, Prof. Marco Gilli (*to be confirmed*)

2.15 – 2.45 **DEMOSOFC project presentation ,** Prof. Massimo Santarelli (project coordinator) – Politecnico di Torino, Energy Department

2.45 – 3.45 INTERNATIONAL KEYNOTE SPEAKERS

Kim Seung-Goo, manager of SOFC development at Posco energy, Korea

Mirela Atanasiu, Project Manager at Fuel Cells and Hydrogen Joint Undertaking of the European Commission

3.45 – 4.00 Coffee Break

4.00 – 5.00 NATIONAL KEYNOTE SPEAKERS AND AUTHORITY

Angelo Moreno, head of "Hydrogen and fuel cell" in ENEA

5.00 – 6.00 **Round Table**: Biogas fed Fuel Cell systems on industrial scale for Italy and Europe

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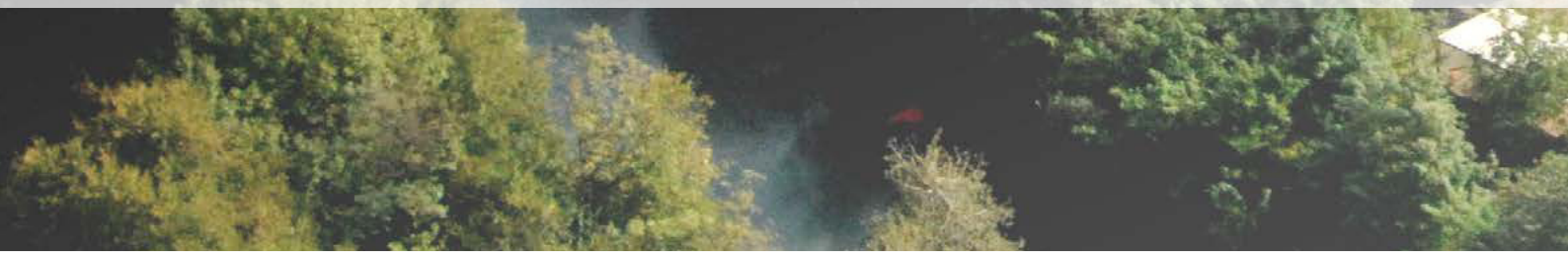

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