



Zero Carbon City International Forum
Thursday, March 18th 2021



Maximizing Urban Cooperation to Accelerate Decarbonization Activities City of Koriyama, Japan





City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

3. Selected in the IUC program sponsored by the EU in 2017

- Essen and Koriyama were selected as pairing cities in the International Urban Corporation (IUC) program in 2017



Essen & Koriyama were part of the city-to-city meetings in Brussels in Nov. 2018

4. Conclusion of agreement on continued cooperation in 2019

- Education & development of next generations were newly-included as additional cooperation fields



Essen & Koriyama concluded the agreement on the continued cooperation in Sep. 2019



Mayors of Essen and Koriyama signed the MoU in Dec. 2017

2. MoU between Essen & Koriyama in 2017

- City-to-city cooperation in the fields of renewable energy and medical device related industry to accelerate the revitalization

1. MoU between Fukushima Pref. & the State of NRW, Germany in 2014

- In the fields of renewable energy and medical device related industry to boost revitalization from the disasters in 2011

5. Join the IURC program sponsored by EU in 2021 (planned)

- Essen and Koriyama are considering to participate in the International Urban Regions and Cities (IURC).



Essen & Koriyama signing ceremony in Koriyama in Sep. 2019



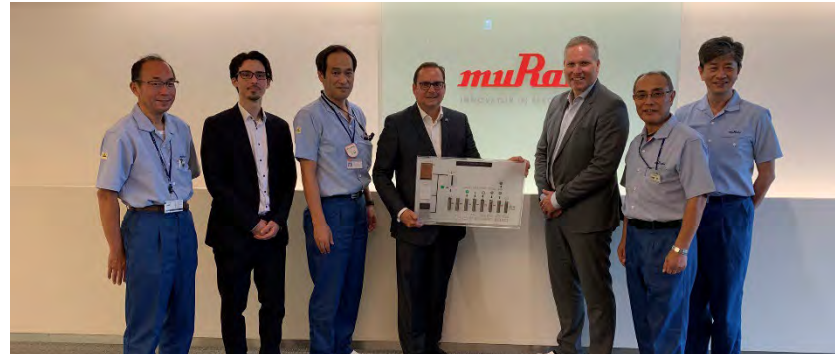
City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

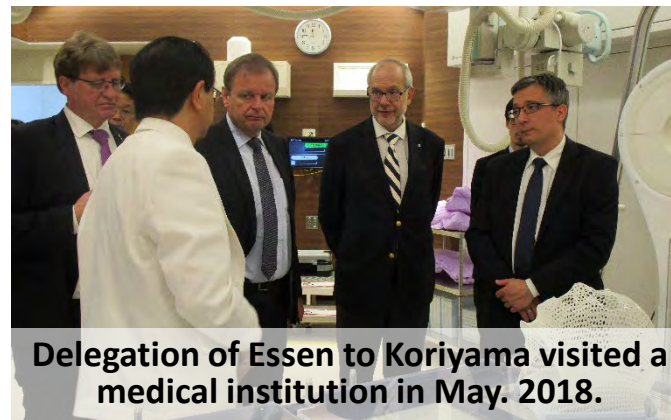
1. Study Tour in KORIYAMA



Site visit of newly-building rainwater detention facilities in Koriyama in May 2019



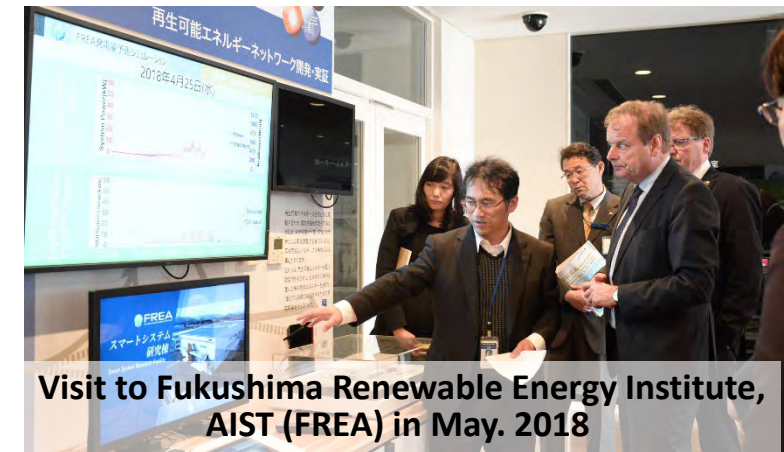
Visit to Tohoku Murata Manufacturing Co., Ltd. a global manufacture of lithium-ion rechargeable batteries in Sep. 2019



Delegation of Essen to Koriyama visited a medical institution in May. 2018.



Business seminar organized to introduce energy and healthcare industries in Essen in May. 2018



Visit to Fukushima Renewable Energy Institute, AIST (FREIA) in May. 2018

- Study tours include site visits, visits to companies, research institutes, universities, etc. Meetings with an aim to share good practices are arranged, and business seminars are organized to raise awareness on the newly-started intercity cooperation.



City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

2. Study Tour in ESSEN

Japanische Energie-Delegation zu Gast bei Oberbürgermeister Kufen

27.08.2019

Heute (27.8.) begrüßte Oberbürgermeister Thomas Kufen eine japanische Delegation im Essener Rathaus. In der 22. Etage hieß er die Delegierten rund um Prof. Dr. Ing. Yoshihito Ozawa, Vorsitzender der Delegation und Professor an der Fukushima University, und Yoshihiro Watanabe, zweiter Vorsitzender der Delegation und Generaldirektor des Umweltamtes der Stadt Koriyama, sowie die Gäste der Essener Wirtschaftsförderungsgesellschaft (EWG) willkommen.



Prof. Dr. Ing. Yoshihito Ozawa, Vorsitzender der Delegation und Professor an der Fukushima University, nimmt ein



Visit to one of the energy powerhouses in Essen paid by a business mission from Koriyama in Feb. 2020



Visit to the first fuel-cell sightseeing boat in Germany on a lake in Essen in Oct. 2018



Business seminar in renewable energy and healthcare in Essen Oct. 2018



Visit to the Gas- und Wärme-Institut Essen e.V.(GWI) in Oct. 2018

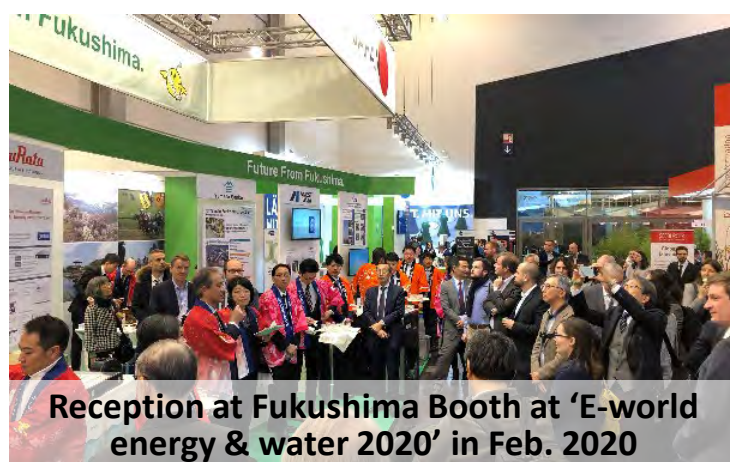
- The study tour on stadtwerke was an ideal learning opportunity to explore the possibilities of locally-produced and consumed energy in Koriyama.
- FREA initiated an ongoing relationship with the Gas- und Wärme-Institut Essen e.V.(GWI)



City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

3. Trade Fairs in ESSEN & KORIYAMA



Reception at Fukushima Booth at 'E-world energy & water 2020' in Feb. 2020



Joint presentation of Essen and Koriyama at a business seminar organized by Fukushima Pref. and the State of NRW in Feb. 2020

- Both ESSEN and KORIYAMA are actively participating trade fairs in each city.
- 'E-world energy & water,' the biggest trade fair in energy in Europe, is hosted by Essen, and 'REIF Fukushima,' one of the largest trade fairs in Tohoku region is hosted by Koriyama.



The virtual booth of Essen at REIF Fukushima in Oct. 2020, which was ran by a Koriyama city government officer for the first time due to the enduring pandemic of the coronavirus.

EWG - Essener Wirtschaftsförderung
2,745 followers
4mo · 🌐

Today: we attended the hybrid energy trade fair "Renewable Energy Industrial Fair (#REIF)" in Koriyama-City, #Japan.
The NRW-booth, perfectly organized by EnergieAgentur.NRW, was the only foreign joint stand participating in #REIF2020 this year. We are represented with our own EWG-stand at the NRW-booth. Due to travel restrictions, our "on-site presence" was managed by Yohei Watanabe, an employee of Koriyama City, who has visited us in Essen several times in the past and is always in close contact with us. This booth was supplemented by a virtual booth-option, which was managed from Essen and provides all information about the energy location.

As exhibitor, we presented the City of Essen as an important energy and #hydrogen location to the international specialist audience.

#Japan #Essen #international #internationalcooperation
#NRW #H2ThinkTank #NordreH2einWestfalen #H2 #Wasserstoff #nachhaltig
#Nachhaltigkeit #Umwelt #Umweltschutz #H2open #open #Ruhrvalley
#MetropoleRuhr #Ruhrgebiet #wenndannhier #sustainable #sustainability
#Energie #Energiewirtschaft #Wirtschaft





City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

4. Business Matching



The first online business matching event was held in Feb. 2021, three SMEs in Koriyama area gave pitches to medical institutions in Essen

- Online business matching events are eagerly planned and organized.
- The first matching was held under the theme of ‘Innovations in the age of the coronavirus’
- Collaborating with FREA, GWI implemented the first SOFC in Europe

EWG - Essener Wirtschaftsförderung
2,745 followers
2w • Edited •

We drive innovation - even in times of Corona. Innovations on an #international level - together with #KoriyamaCity from #Japan.

Since October 2020 we regularly organise digital formats for targeted innovation transfer with #Koriyama. A video match was held last week with representatives of the #healthcareindustry.

Two of the #medical #innovations presented can be understood as a reaction to the ongoing #Corona pandemic:
The first product, a pop-up room for indoor and outdoor use, which can be quickly converted into treatment rooms for patients with infectious diseases.

The second, **CYBERDYNE, INC.** introduced an autonomously driving robot that sprays disinfectant on its way. A helper that would be suitable for use in infection wards.

To conclude the video matching, from Hundred Inc., a young and promising start-up, demonstrated particularly gentle syringe needles. They are a proprietary development of the company and a worldwide patent application is currently being sought.

Universität Duisburg-Essen, JETRO - Japan External Trade Organization, Yohei Watanabe, WOLFGANG SAUERWEIN, Motoaki Komiya, Maren Schulze, Go Theisen, Markus PlieBnig
#medicaltechnology #Japan #Essen #digitalhealth #innovation #internationalbusiness #robotics #hospital #healthcare #Covid19 #ehealth



‘Utilizing ready-to-assemble & quick deploy ER made of honeycomb cardboard panels as care units for patients of COVID-19’ and ‘Autonomous Cleaning and Disinfection Robot’ were presented.

EWG - Essener Wirtschaftsförderung
1,904 followers
2d •

Wow! Fantastic success news: The First Solid Oxide Fuel Cell #SOFC in Europe will be installed in #Essen on the campus at **Gas- und Wärme-Institut Essen e.V.** It will be the first outside #Japan!

Hybrid SOFC systems are very efficient power generators consisting of solid oxide fuel cells and micro gas turbines, which can proportionally use #hydrogen as fuel gas.

Once again proof that the #CityOfEssen is ideally suited as a sustainable location for the hydrogen market.

GW's good relations with the Japanese research center Fukushima Renewable Energy Institute (FREA) contribute to the success of the project. The contact between the two research institutions was established and deepened with our help during German-Japanese delegation trips between Essen and Koriyama in Fukushima Prefecture.

[IN4climate.NRW Mitsubishi Power Europe Stadt der Städte Business Metropole Ruhr GmbH](#)

#H2ThinkTank #mitsubishipower #fuelcell #energytransition #EssenInnovation #NordrH2einWestfalen #H2 #Wasserstoff #nachhaltig #Nachhaltigkeit #Umwelt #Umweltschutz #H2open #open #Ruhrvalley #MetropoleRuhr #Ruhrgebiet #wenndannhier #Essen #sustainability #Energie #Energiewirtschaft #Wirtschaft #greeneconomy #renewableenergy #greenddeal #Energy



the Gas- und Wärme-Institut Essen e.V.(GWI) implemented the first SOFC from Mitsubishi Power Europe



City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

5. Projects on Uses of Hydrogen



'Koriyama Study Group on Uses of Hydrogen' is a platform among industry, academia, financial institutions and government. The sessions have been held 5 times.

- Narrowing its focus on mobility, 'Koriyama Study Group on Uses of Hydrogen' consists of industry (transportation, auto industry, hydrogen manufacturer, etc.), academia, financial institutions and government promotes FCV and EV in the city.
- Online exchange between 'evety' a start-up consultant on hydrogen in Essen and FREA
- 'H2 week' held in Essen, Energy Agency. Fukushima presented the potential of hydrogen in Fukushima

evety

About us Services Magazine Contact English



Online meeting between FREA and 'evety', a start-up consultant in Essen on hydrogen in Oct. 2020



'H2 week' at Digital Campus Zollverein in Essen, Energy Agency. Fukushima presented.



City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

6. Cooperation with FREA on Uses of Hydrogen

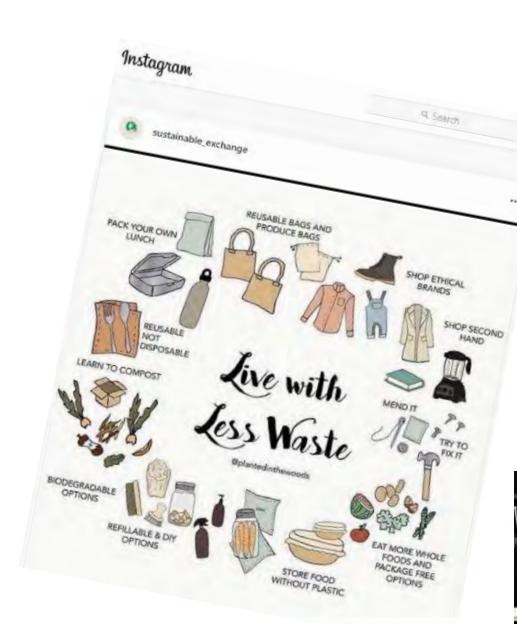
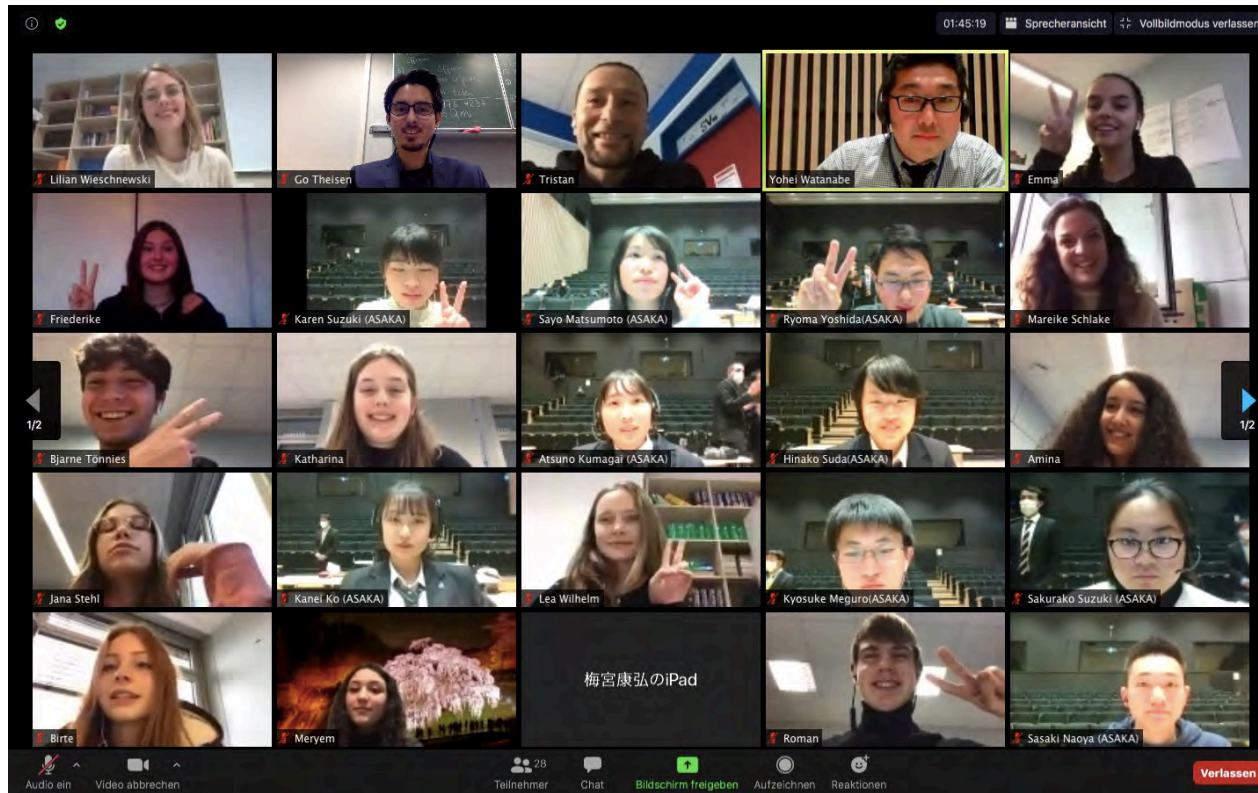


Hydrogen energy system for buildings at Koriyama City General Wholesale Market



- In close cooperation with the City of Koriyama, FREA and Shimizu Corporation conduct full-scale experimental operation of a hydrogen energy system for buildings at Koriyama City General Wholesale Market from July 2019.
- FREA is promoting collaborations with overseas organizations as well as domestic organizations including Fraunhofer in Germany.

7. Development of Next Generations



One of the groups created an Instagram account to give out information on sustainable life



German students participating in the online group discussions despite of the strict restrictions in Germany

- Online workshops between high school students in Essen and Koriyama were held for the first time, 7 groups of German and Japanese students are tackling the SDGs, shaping ideas into tangible projects.
- The final presentation session is scheduled on March 25th 2021.



City-to-city Cooperation with Essen, Germany

Maximizing Urban Cooperation to Accelerate Decarbonization Activities

8. Projects on Music in the age of Coronavirus

- Online music events are organized to share a sense of unity and encouragement in the age of Coronavirus
- The online concert commemorating the 10th anniversary of the Great East Japan Earthquake in 2011



Responding a proposal of 'Ode to Joy', a symbol of unity project from Essen, children in Koriyama recorded their performance and posted it on SNS in May 2020



The memorial concert planned and organized by the City of Essen was held at the Folkwang Museum Mar. 2021