

aqua & waste International GmbH

INNOVATIVE. ENVIRONMENTAL. SOLUTIONS.



- *Project Presentation* -

M.Eng. Henning Zeich
zeich@aquawaste.de

10.02.2021

Supported by:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety



based on a decision of the German Bundestag

CONTENTS

1. Introduction & Background
2. Project team & initiators
3. Work packages
4. How to participate
5. Outlook
6. Discussion / Questions

INTRODUCTION

ShowCaseIN

Conceptual development of a transformation strategy for an existing wastewater treatment plant in India towards a Show Case plant for educational purposes by applying German technologies in a regional context

Acronym

- ShowCaseIN
- AKZ:
16EXI3039A

Project Term

- 08/2020 to
08/2022

Project Type

- Joint project
- Feasibility study

Budget

- € 200,367.00
(subsidy amount)

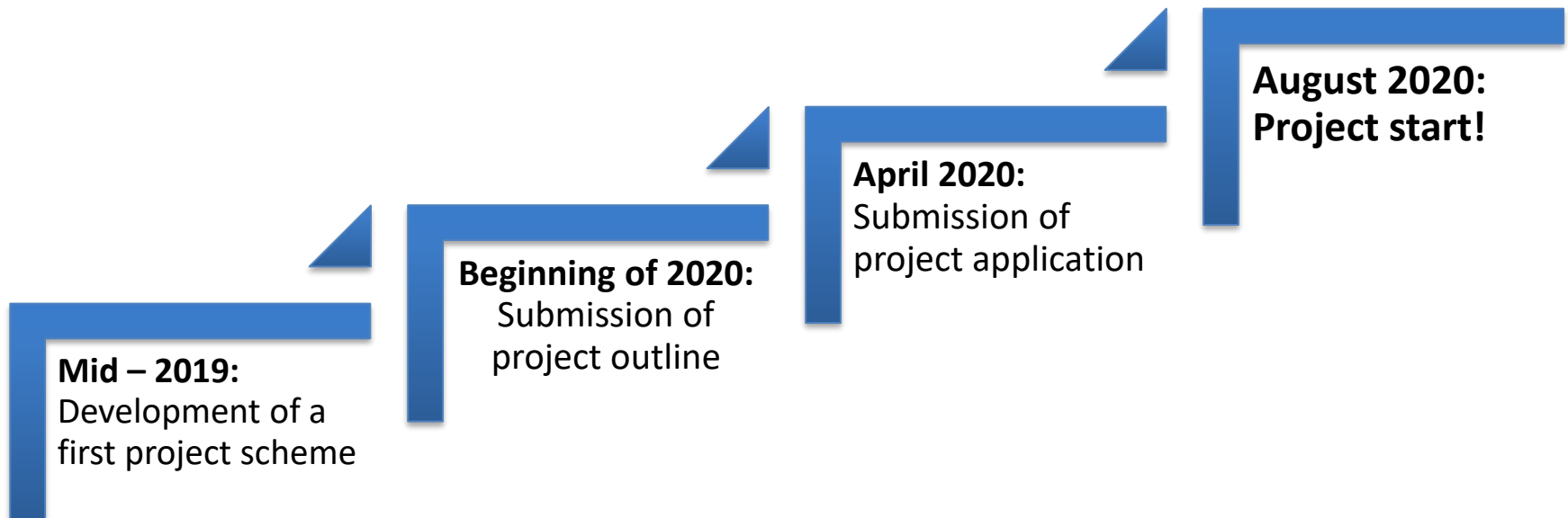
Funding

- “Exportinitiative Umwelttechnologien“ of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

BACKGROUND

German Water Partnership (GWP) Regional Section India

- Need for functioning & operational references India
- Focus on holistic treatment approach (interdependencies of different treatment steps)
- Knowledge transfer and anchoring about layout & design principles



AT A GLANCE

Technical Concept



Conceptual technical design of the ShowCase Wastewater Treatment Plant adapted to local conditions

Knowledge transfer



Development of a capacity building and training concept incorporated in the ShowCase Plant

Standardized Guideline



Development of a step-by-step guideline enabling a systematic transfer of the concept to other locations.

OBJECTIVES

Overall Objectives

- Functional non-profit application and establishment of sustainable wastewater treatment technologies in India.
- Improvement of the environmental conditions on-site and promotion of hygiene through modern wastewater treatment.
- Development of a holistic technical and educational concept adapted to the regional conditions for the upgrade of an existing wastewater treatment plant as a showcase.
- Use of the showcase wastewater treatment plant as a training center for knowledge transfer and knowledge anchoring in India.

PROJECT TEAM

Project coordinator



Prof. Dr.-Ing. Peter Hartwig
aqua & waste International GmbH
Mengendamm 16 D, D-30177 Hanover, Germany
Web: www.aquawaste.de
E-Mail: hartwig@aquawaste.de
Tel.: +49 (0) 511 / 132 221 – 80

Project partner



Dr.-Ing. Michael Kuhn
KUHN GmbH Technische Anlagen
Franz-Kuhn-Straße 1-3, D-74746 Höpfingen, Germany
Web: www.kuhn-gmbh.de
E-Mail: MKuhn@kuhn-gmbh.de
Tel.: +49 (0) 6283 / 2201 – 0

PROJECT TEAM



Peter Althaus

ENEXIO Water Technologies GmbH
Dieselweg 5, 48493 Wettringen, Germany
Web: www.enexio-water-technologies.com
E-Mail: peter.althaus@enexio.com
Tel: +49 2557 9390 39



German Water
Partnership

Julia Braune

German Water Partnership e.V.
Reinhardtstraße 32, 10117 Berlin, Germany
Web: www.germanwaterpartnership.de
E-Mail: braune@germanwaterpartnership.de
Tel.: +49 30 300199-1220



Fraunhofer
IGB

Dr.-Ing. Marius Mohr

Fraunhofer Institute for Interfacial Engineering and Biotechnology
IGB Nobelstraße 12, 70569 Stuttgart, Germany
Web: www.igb.fraunhofer.de
E-Mail: marius.mohr@igb.fraunhofer.de
Tel.: +49 711 970-4216

FURTHER INITIATORS



More Information: <https://showcaseindia.aquawaste.de/about-the-project/who-we-are/>

WORK PACKAGES

WP1 – PROJECT PREPARATION

- Kick-off meeting
- Establishment of communication platform / structure
- Clarification of competences / responsibilities
- Preliminary talks / coordination with potential Indian partners
- Planning of travel activities on site (flights, accommodation, transport etc.)
- Detailed schedule / resource planning

WORK PACKAGES

WP2 – INVENTORY / BASELINE ASSESSMENT

- On-site meetings with potential Indian partners / stakeholders
- Identification of potential locations for the show case plant
- Site visit / suitability analysis (Qualification analysis/pre-qualification)
- Recording of country-specific legal and financial regulations as well as framework conditions
- Identification/definition of framework conditions (assessment bases, operator models, etc.)
- Interim report on Inventory / basic data

WORK PACKAGES

WP3 – CONCEPTUAL DESIGN OF THE SHOWCASE PLANT

- Conceptual design or draft design of plant components
- Cost estimation and economic feasibility study
- Analysis of the various aspects of environmental and social compatibility
- Cost/Benefit analysis, sensitivity analysis
- Supporting financial planning for plant operators
- Development of financing models for possible follow-up project
- Completion of technical concept – interim report 2

WORK PACKAGES

WP4 – DEVELOPMENT OF A LEARNING AND TRAINING CONCEPT

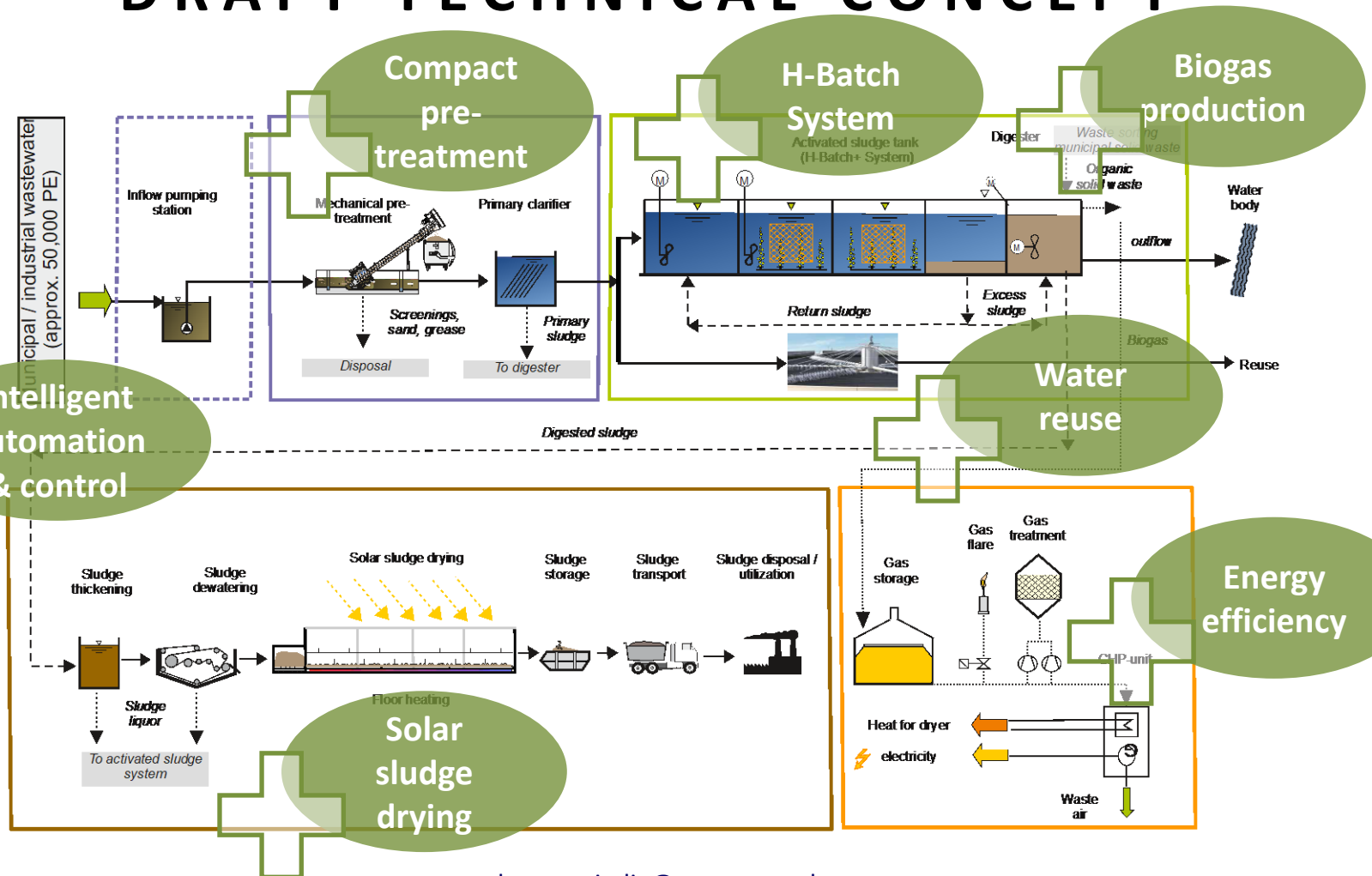
- Needs analysis
- Development of different learning and teaching formats
- Conceptual connection to existing training systems
- Brief description of a learning and training center

WORK PACKAGES

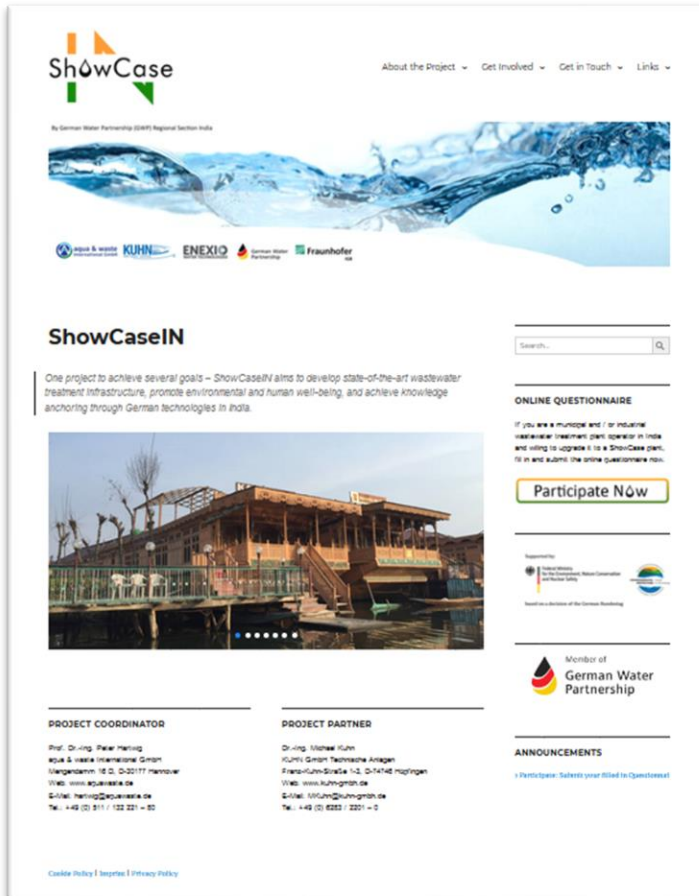
WP5 – OVERALL PROJECT MANAGEMENT

- Controlling
- Contract management and negotiations
- Documentation and accounting

DRAFT TECHNICAL CONCEPT



H O M E P A G E



- Today: Official launch of the project website
- <https://showcaseindia.aquawaste.de/>



GET INVOLVED

German Water Sector

- Member companies of German Water Partnership
- Submit your Expression of Interest to showcaseindia@aquawaste.de
- Additional requisite information: Short company profile, description of products and/or services, relevant references, future commitment within the GWP Regional Section India, contact person from your company, and company logo (e.g., jpg)
- After thorough and positive assessment, your company name and logo will be listed on the project homepage
- Consideration for actual implementation of the ShowCase plant

GET INVOLVED

Indian Water Sector – We offer ...

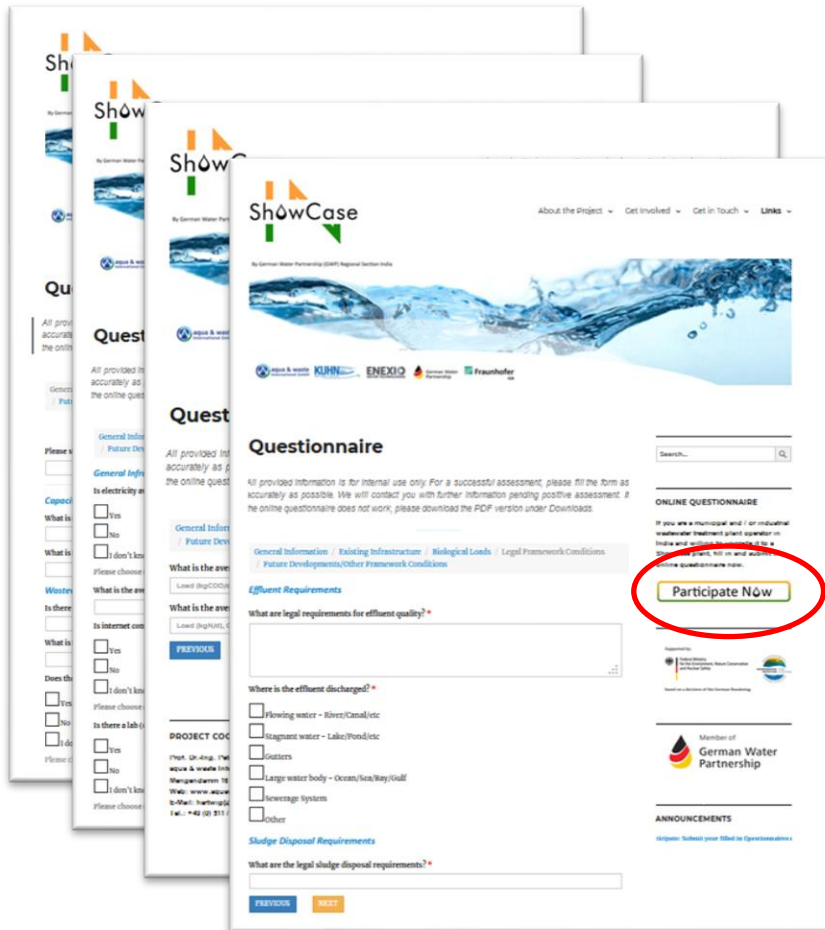
- Individual and holistic upgrading concept for an existing wastewater treatment plant in India, based on state-of-the-art German best-practice treatment technologies
- Innovative approach towards energy efficiency, water reuse, automation and control, biogas production, sewage sludge treatment & utilization
- Personal technical and project support through on-site visits from German wastewater experts at your treatment plant
- Expansion of your professional network in the German and Indian Water Sectors

GET INVOLVED

Indian Water Sector – What we are looking for ...

- Existing municipal and/or industrial Wastewater Treatment Plant (WWTP) with a capacity of around 50.000 PE (approx. 6 MLD)
- A WWTP with extensive potential for upgrades/need for overall technical improvement
- Willingness for long-term cooperation and trustful partnership
- Willingness to use the future ShowCase Wastewater Treatment plant as a learning and training center

QUESTIONNAIRE - ONLINE



- Use “Participate Now” – button at website
- General Information, Existing Infrastructure, Biological Loads, Legal Framework Conditions, Future Development/Framework conditions
- We are looking forward to your entries!

QUESTIONNAIRE - PDF

- Editable PDF File
- Download from website
- Please submit the filled in form via E-Mail to showcaseindia@aquawaste.de

Questionnaire

Page - 4

Please enter the contact details of the responsible person for future communication. *

Name, Phone, Email

What is the current staff infrastructure? *

Technicians (number)

Engines (number)

Existing Infrastructure

General Infrastructure

Is electricity available at all times? *

Yes No I don't know

What is the average number of (electric) blackouts per month? *

Is internet connection easily accessible? *

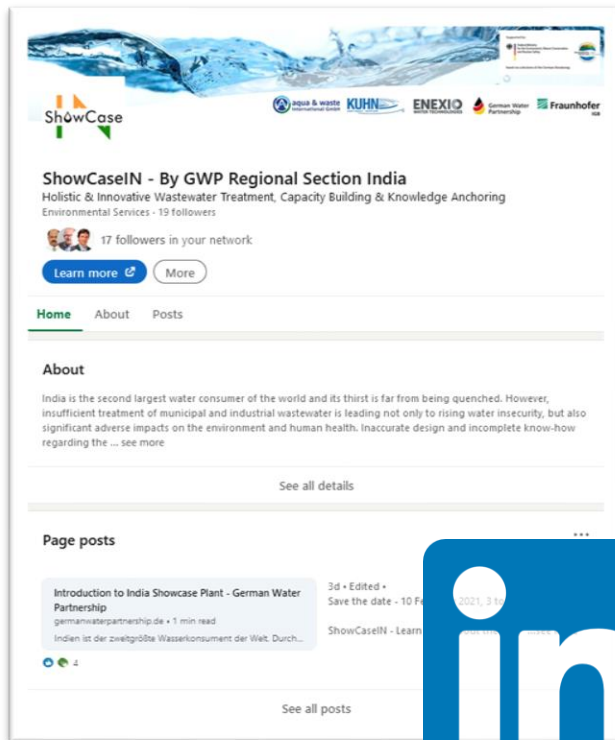
Yes No I don't know

Is there a laboratory on site for wastewater analysis? *

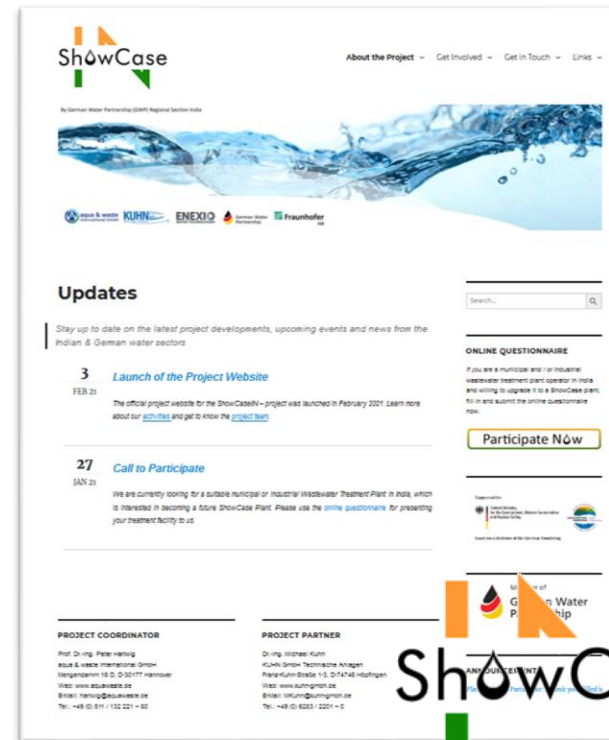
Yes No I don't know

aqua & waste International GmbH KUHN ENEXIO German Water Partnership Fraunhofer

UPDATES



<https://www.linkedin.com/showcase/showcasein>



<https://showcaseindia.aquawaste.de/about-the-project/updates/>

OUTLOOK

- Finalization of project flyer (German / English)
- Distribution of the questionnaire in the GWP network in India
- Involvement of further stakeholders from the German and Indian water sector
- Evaluation of questionnaires and selection of a WWTP

aqua & waste International GmbH

INNOVATIVE. ENVIRONMENTAL. SOLUTIONS.



- *Thank You!* -

M.Eng. Henning Zeich
zeich@aquawaste.de

10.02.2021

Supported by:



based on a decision of the German Bundestag