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CONSULTING & DEVELOPMENT

Innovative Kindly Unique Efficient

ADDIMIX®

Cement Additivs

# Addimix IM product line for Immobilization

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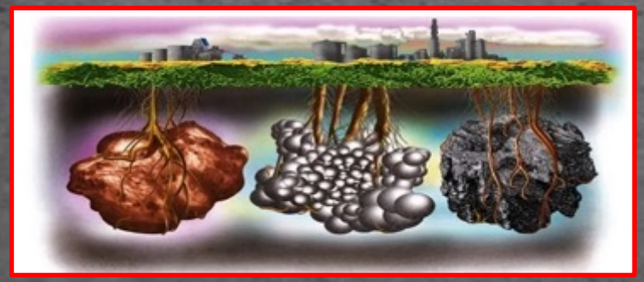


## Cement Additive for Immobilization

Our product **Additiv** IM is, besides **Addimix** ST, part of the Addtive product family. All Additivs products are the result of a consistent and market-orientated enhancement for more than 15 years. Various tests of independent institutes have proved that **AddtiX** IM meets all individual requirements in an optimal way.

**Additiv** IM is providing a solid contribution in protecting humans as well as nature from hazardous pollutants, where natural disasters or accidents with harmful substances have already happened. The application of **Addimix** IM is generally the same as with **Addimix** ST. The product will be mixed with Portland cement and the given soil. The exact proportion will be determined by the expected standard of performance.

**Addimix** IM can be used for almost all kinds of projects which require the immobilization of pollutants:

- Recultivation of former industrial grounds.
- Soil decontamination of pollutants within harbor facilities.
- Reconditioning of contaminated soils for new residential projects.
- Renaturation of polluted grounds.
- Structural maintenance after explosions or natural disasters.
- Removal of pollutants after accidents within the transportation of dangerous goods.

# Addimix IM Procedure for Immobilization

## Application procedure

Application procedure of **Addimix** IM in cases when there is a heavy polluted area with several meters down:

## Procedure for:

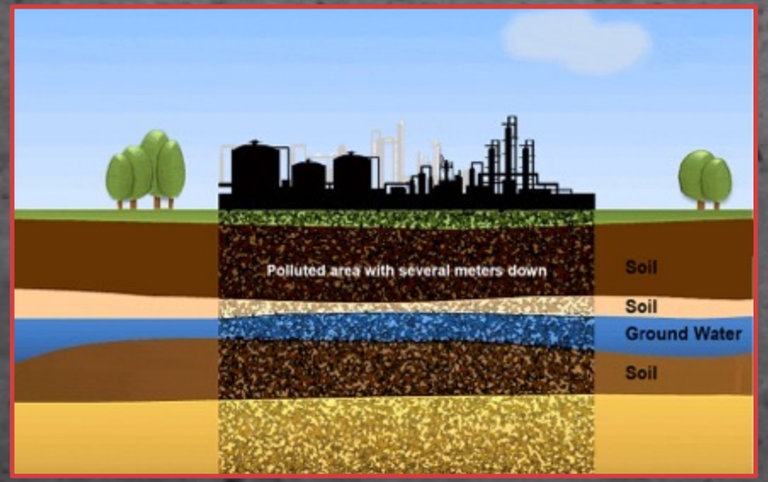
Removal of the polluted soil layer by layer, about 5 cm each time. There should be a few hours time gap between each removal so that the upper layer has the chance to dry off and get the moisture out. The dry soil will finally be evacuated and mixed with Addimix IM.

# Addimix IM Testing Procedure Step 1 for Immobilization

**Step1: Testing of the polluted material**

Testing of the polluted material of the site in our laboratory and matching it with the right proportion of **Addimix** IM in order to neutralize the pollutants like heavy metal or crude oil in the ground

# Addimix IM Procedure Example for Immobilization




**Example:**

Chevron Project with a polluted site of 14,7 million $m^3$. The contermination is up to 7 meters down

# Addimix IM Procedure Step 2 for Immobilization


**Step 2: Removal**

Removel of the polluted soil layer by layer,
about 5 cm each time.

# Addimix IM Final Testing Step 3 for Immobilization

## Step 3: Final testing

Final testing of the adapted mixture at a certified laboratory in the customers country in order to get the final approval for application at the polluted site

# Addimix IM Procedure Step 4 for Immobilization


## Step 4: After the removal

After the removal of the polluted soil has reached the depth of one meter the next step is to build a 10 cm platform on this ground level.

## Procedure

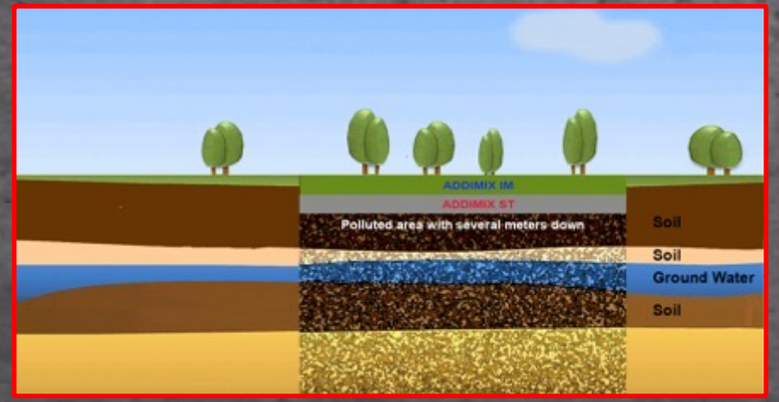
The procedure is similar to the process for road construction with our special cement additive:
Water, Portland Cement and additive will be mixed together in order to shape a strong and solid layer that no rainwater can go through anymore. Therefore the pollutants in the soil underneath the platform will not be washed out in the future and finally harm the ground water.

# Addimix IM Procedure Step 4 - 6 for Immobilization


## Step 5: Return of the treaded soil

After 24 hours the intercaleted removed soil that was treated with **Addimix** IM can be brought back to the site to be filled in the 1 meter hole.

# Addimix IM Procedure Step 4 - 6 for Immobilization




**Step 6: Plantation**

Finally all kind of plantation can be realized again on the now treated site.

# Addimix IM procedure for Immobilization

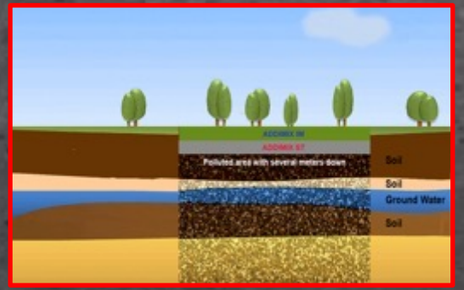
**Step1: Testing of the polluted material**


Step 2: Removal of the polluted soil layer by layer, about 5 cm each time.


Step 3: Build a 10 cm platform to protect the ground water

Step 4: Final testing


Step 5: Removed the soil back to the site to be filled in the 1 meter hole.




Step 6: Realize a new plantation.

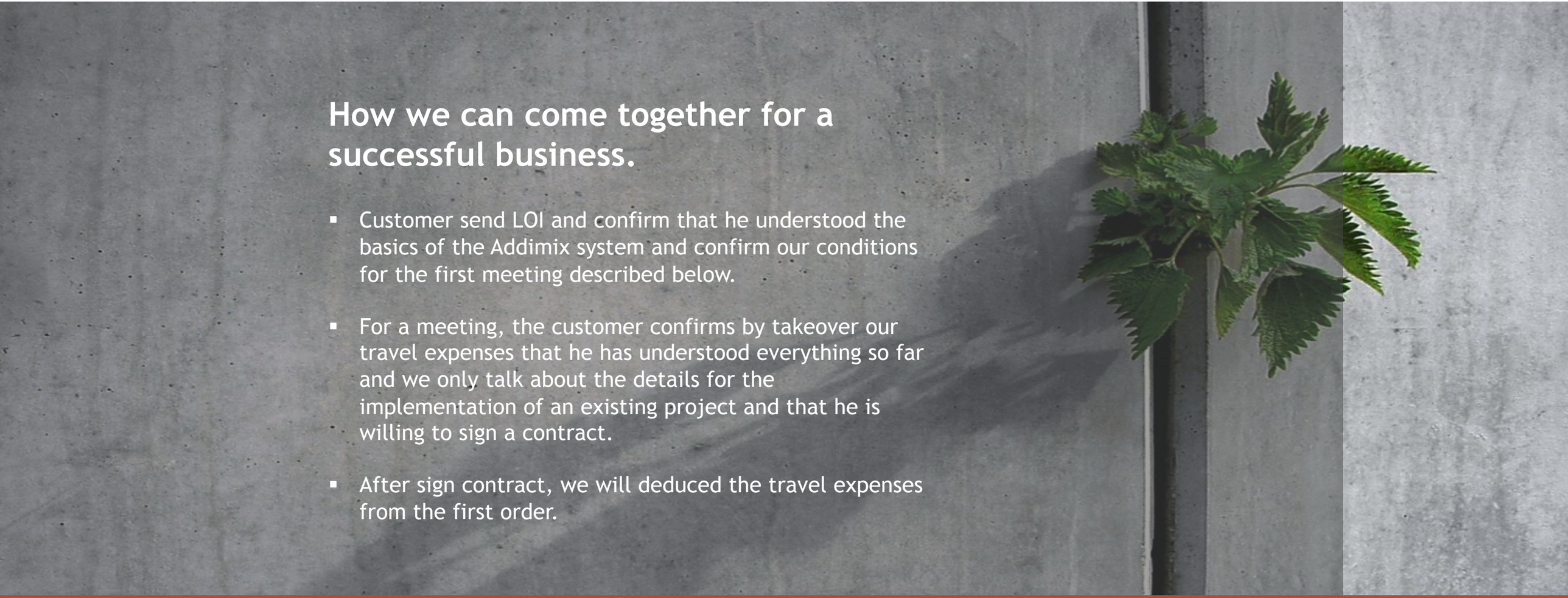
# Worldwide references from our customers:

In the following you will find a small selection of the latest global projects where our customers used Addimix ST within their construction projects for private, state or military contractors:

- Construction of a new subsidiary for BWM (Germany)
- Construction of a logistics center for Adam Opel AG (Germany)
- Reconditioning of a test track for Daimler Benz (USA)
- Construction of railway track (Nigeria)
- Construction of a oil storage for ENERGY company (Russia)
- Construction of harbor facilities for the Armed Forces (Sweden)
- Parking Areas in Mumbai (India)
- Road construction for Thyssen Krupp (Brazil)
- Construction of drainage and irrigation canal (Malaysia)
- Construction of windmill park (Australia)
- Construction of biogas plants (Thailand)

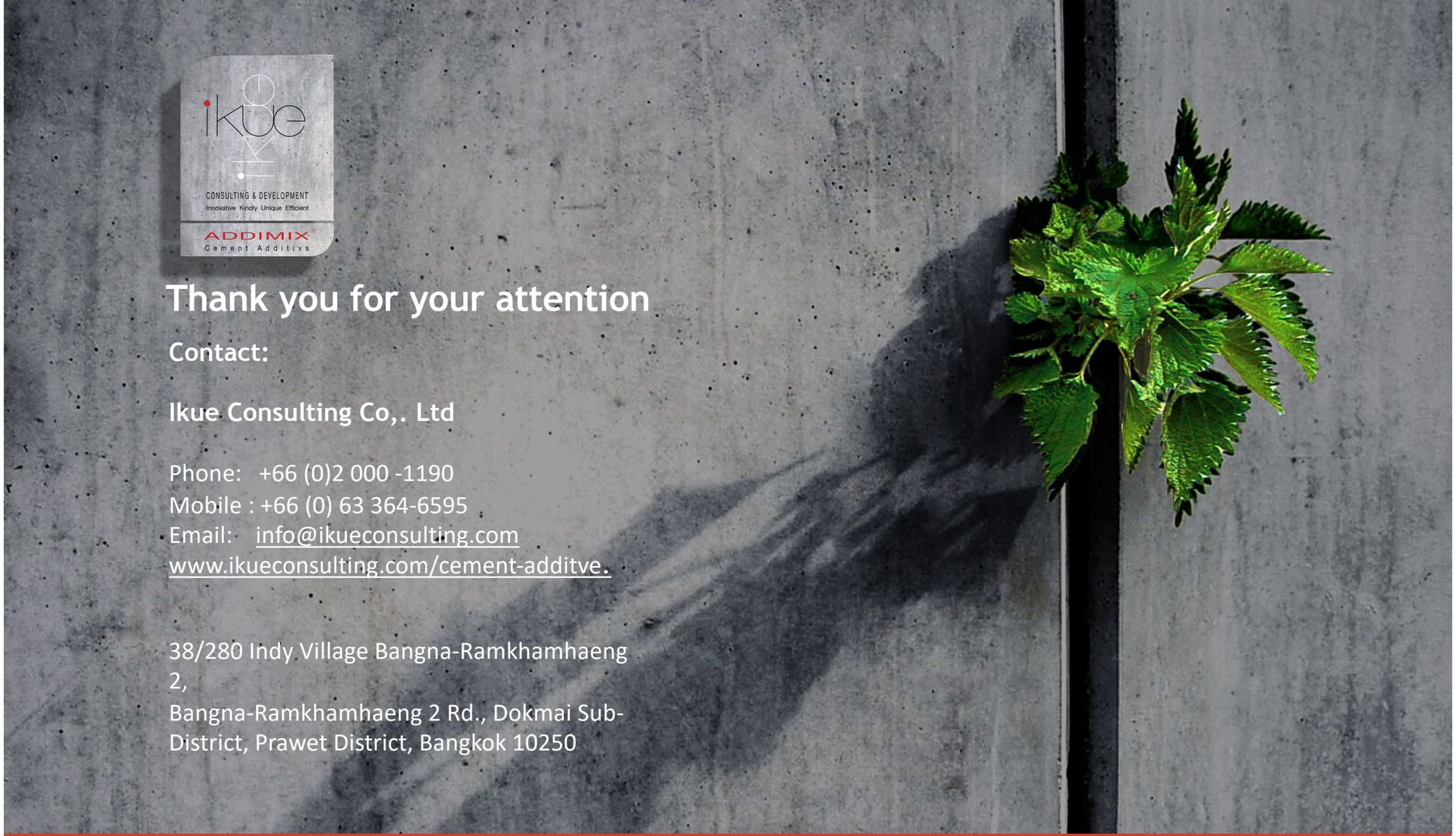
We can provide detailed site reports on this and other projects by request!

Comming together is a beginning...
Working together is success...



## How we can come together for a successful business.

- Customer send LOI and confirm that he understood the basics of the Addimix system and confirm our conditions for the first meeting described below.
- For a meeting, the customer confirms by takeover our travel expenses that he has understood everything so far and we only talk about the details for the implementation of an existing project and that he is willing to sign a contract.
- After sign contract, we will deduced the travel expenses from the first order.




# Thank you for your attention

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