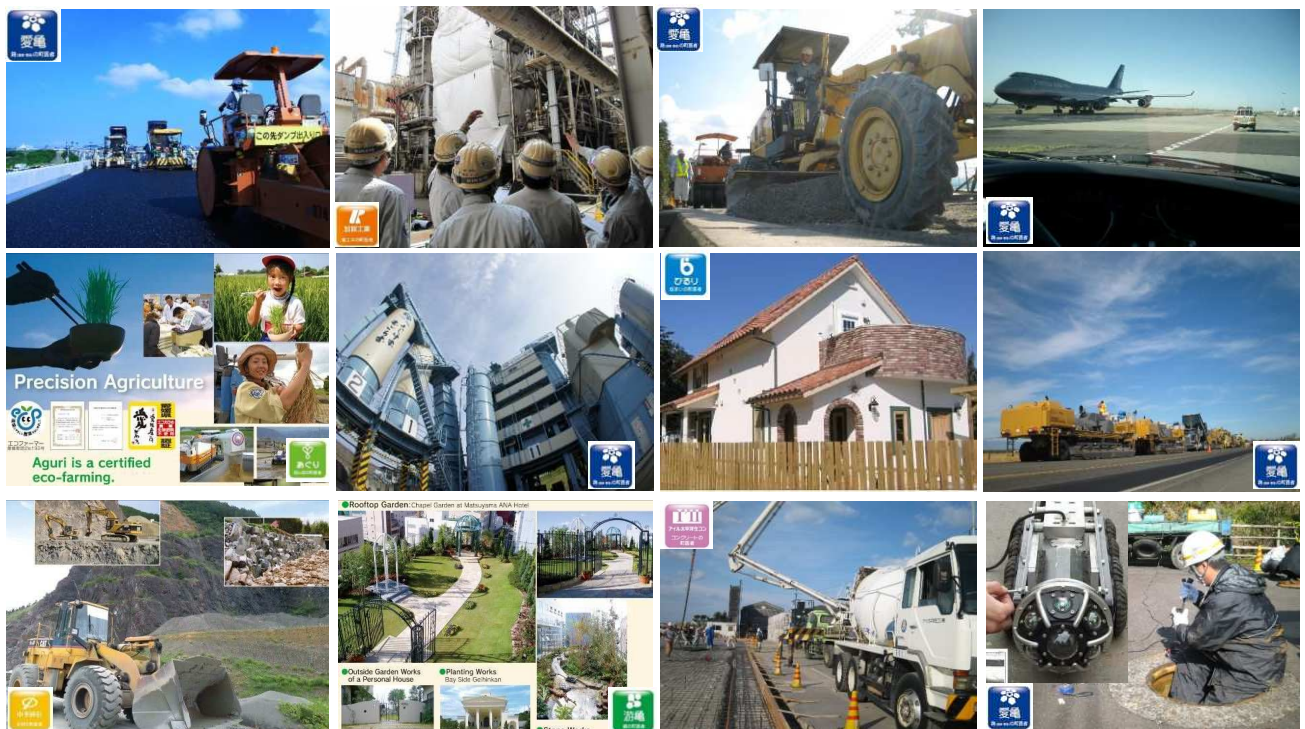




## The Advanced Infrastructure Activists



C1

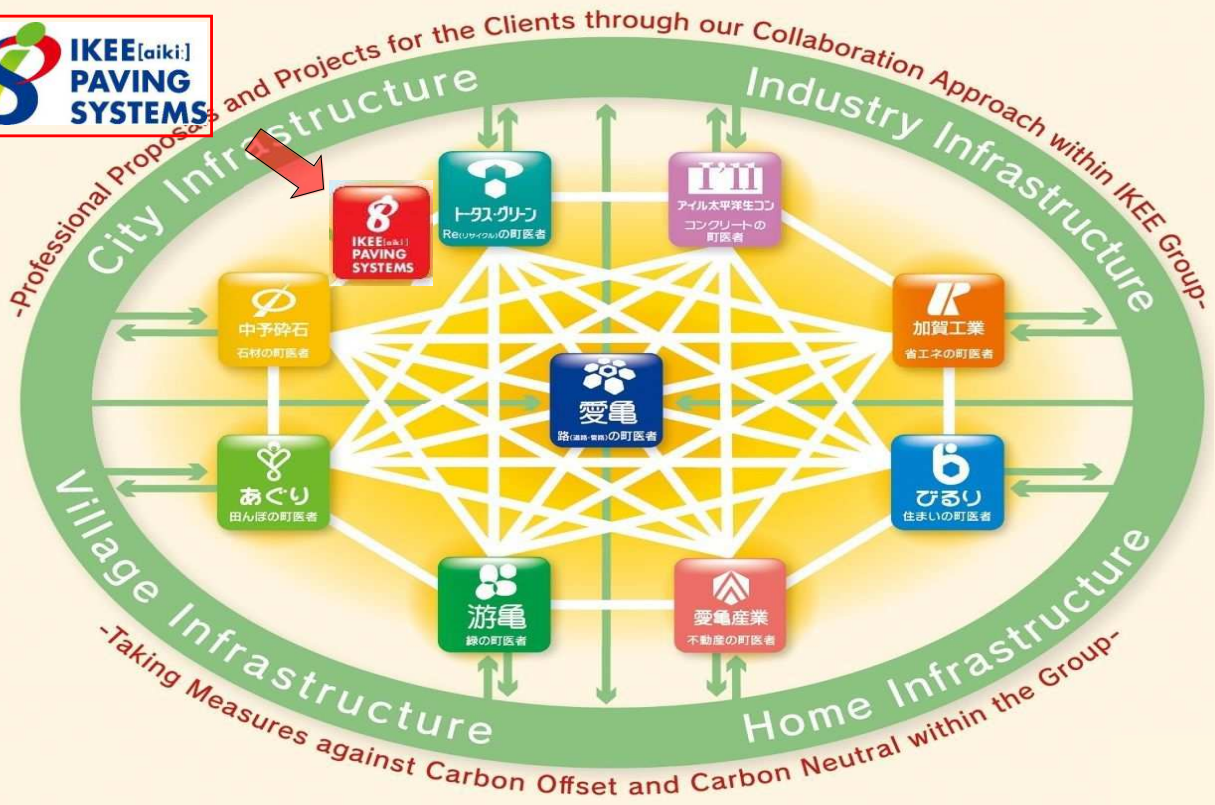


## The Advanced Infrastructure Activists



C2





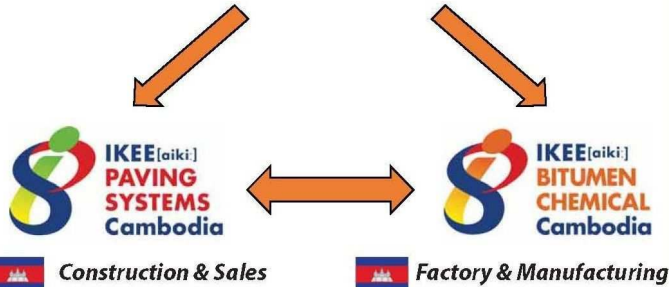
## Towns are Alive!

The infrastructure is the social fundamental systems which is needed for a town, that everyone utilizes. In this way the infrastructure is a source of life support for people and town. But, how is the maintenance of this infrastructure performed?

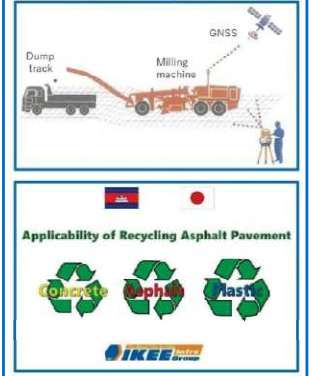




**ODA(Japan) Project  
-NR5 Improvement Project-**



**New Technology  
- ICT and  
Recycle (waste plastic)-**



**Products and Construction technology**



CS



**EXCEL**

The Permanent Cold Patch

**Japan Initiative Made**

The pavement  
repair materials

**For all weather type**

**Dangerous Pothole Ahead!** **Pothole Buster**  
**Excel Patch** **Fast Solution!**  
**Try First!**



**Long-Life Storable**



**All-Weather Available**



**Easy Laying**



**Foot Compaction**



The Infra Activists



**www.ikee.jp**  
Matsuyama JAPAN

E6



## Characteristics of “EXCEL PATCH”

- It is suitable for urgent and dangerous pothole repair
- It helps the reduction of the road maintenance cost
- Tack coat or any other adhesives are not required
- It can be used at any temperature, any weather
- There is no need to block off or plate over the area. The road will be repaired soon with the traffic because Excel is a pressure-sensitive product
- Excel, which come in a special bag, has a long shelf life (up to 1 year)



Long-Life Storable  
20kg/bag



All-Weather  
Available



Foot  
Compaction



Easy Laying



Zip the Bag  
for Using Again

E7



### Examples of Using #1 Cambodia



Before



After



1 month



3 month



### Examples of Using #2 Bangladesh



E8





## Examples of Using #3 Kyrgyz



E9

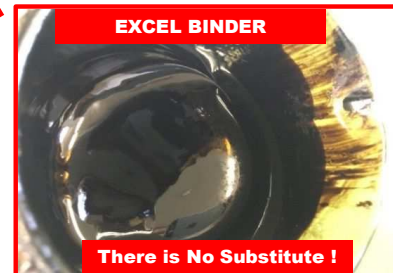
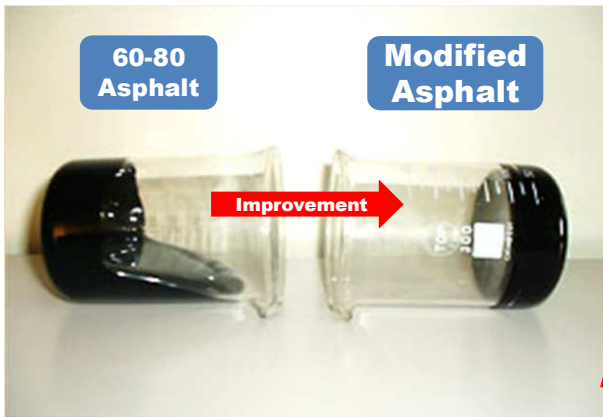


## Examples of Using #3 Kyrgyz





## EXCEL PATCH Binder “TA Modified Asphalt”

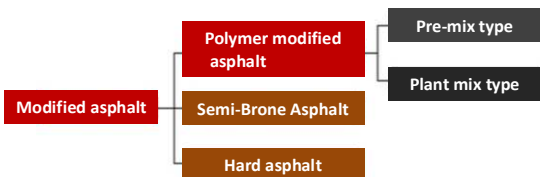


E11



## FYI 1 “Modified Asphalt”

- The durability performance of ordinary asphalt mixtures is improved by the addition of modifiers.
- The durability performance is greatly improved in terms of flow resistance, abrasion resistance, aggregate scattering resistance, and deflection tracking.
- Rubber or thermoplastic elastomer is used for modified asphalt.
- Epoxy asphalt using epoxy resin as a modifier is also available.



Dynamic Stability TEST

(Movie) Porous AC: Hi-performance modified asphalt



C12





## FYI 2 “Reclaimed Asphalt Pavement”

Sustainable Pavement Solutions



Crushing & Sieving



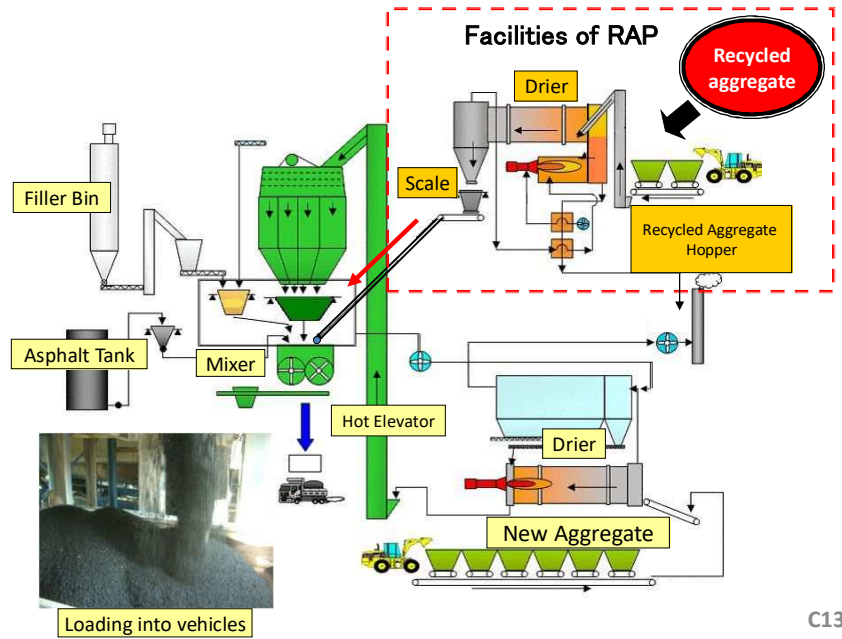
Cold Milling



Asphalt Waste



Recycled Aggregates for RAP and Recycled base course



C13



## FYI 3 “Cement-AS Emulsion Stabilization”

Sustainable Pavement Solutions



Outstanding for Maintenance of DBST Road !!



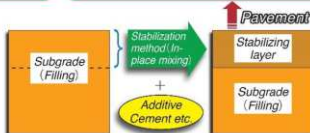
AS Emulsion

Cement

Base construction by stabilization for earth road or granular road



Repair of existing pavement (FDR)



C14

## Stabilizing method and stabilizer (movie)



## Modified hot asphalt mixture using waste plastic (movie)





## Installation of ICT sensors on the milling machine (movie)



N17

お久しぶりです

*Thank you  
for your attention!!*



C18