

## Host Utilities



Co - Host Utilities



## ORGANIZER



India  
SMART UTILITY  
Week 2024

## Supporting Ministries



समन्वय जयते  
MINISTRY OF POWER  
GOVERNMENT OF INDIA



समन्वय जयते  
MINISTRY OF NEW AND  
RENEWABLE ENERGY  
GOVERNMENT OF INDIA



समन्वय जयते  
नीति आयोग  
National Institution for Transforming India



समन्वय जयते  
MINISTRY OF ELECTRONICS &  
INFORMATION TECHNOLOGY  
GOVERNMENT OF INDIA



समन्वय जयते  
MINISTRY OF HEAVY INDUSTRIES  
GOVERNMENT OF INDIA



समन्वय जयते  
MINISTRY OF JAL SHAKTI  
DEPARTMENT OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION,  
GOVERNMENT OF INDIA



समन्वय जयते  
MINISTRY OF POWER  
GOVERNMENT OF INDIA  
CENTRAL ELECTRICITY AUTHORITY

# Session 3: Global Lessons on Smart Metering

## Hybrid communication

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www.isuw.in



@ISUW\_India



@India Smart Utility Week (ISUW)



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@indiasmartgridforum



# G3-Alliance

*Enabling the smartest grid...together*

- Member organization
- Not-for-profit
- Standardise & promote smart grid communication protocol
- Operate Certification program

# INTRODUCTION – What is the G3-Alliance



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ISGF  
India Smart Grid Forum

**G3-Alliance**  
*Enabling the smartest grid...together*

Supported by  
international  
group of 100  
utilities and  
industrial  
players

ENEDIS  
L'ELECTRICITE EN RESEAU

edf

ST

Société Tunisienne  
de l'Électricité et du Gaz  
الشركة التونسية  
لل كهرباء والغاز

luxmetering  
DE

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ENERGIE STEIERMARK

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Solutions for utilities

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ensor

ELSEWEDY  
ELECTROMETER

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GROUP

CAHORS

EWG  
ELECTRICITY WATER GAS

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HEXING

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JSC "CONCERN ENERGOERA"

HOLLEY  
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METER&CONTROL

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SUNRISE  
炬華科技

ZTE

MikroElektronika  
DEVELOPMENT TOOLS | COMPILERS | BOOKS

STAR  
思达仪表  
STAR INSTRUMENT

4S4  
GROUP

POWERCOM

CLOU

SANXING

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施维智能计量系统服务  
SMART METERING SOLUTIONS

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WILFAR®

TAKAOKA TOKO CO., LTD.

ANDREA

Plexigrid

SPARTA

IMSYS.  
Integrated Measurement Systems

LANPARK  
Expanding networks

CORINEX

neuron  
enabling networks

TÜVRheinland®

B&C  
PROJECT

Panasonic

M&F SMART TECHNOLOGY  
LEF Group

Dialog

智能量测联盟

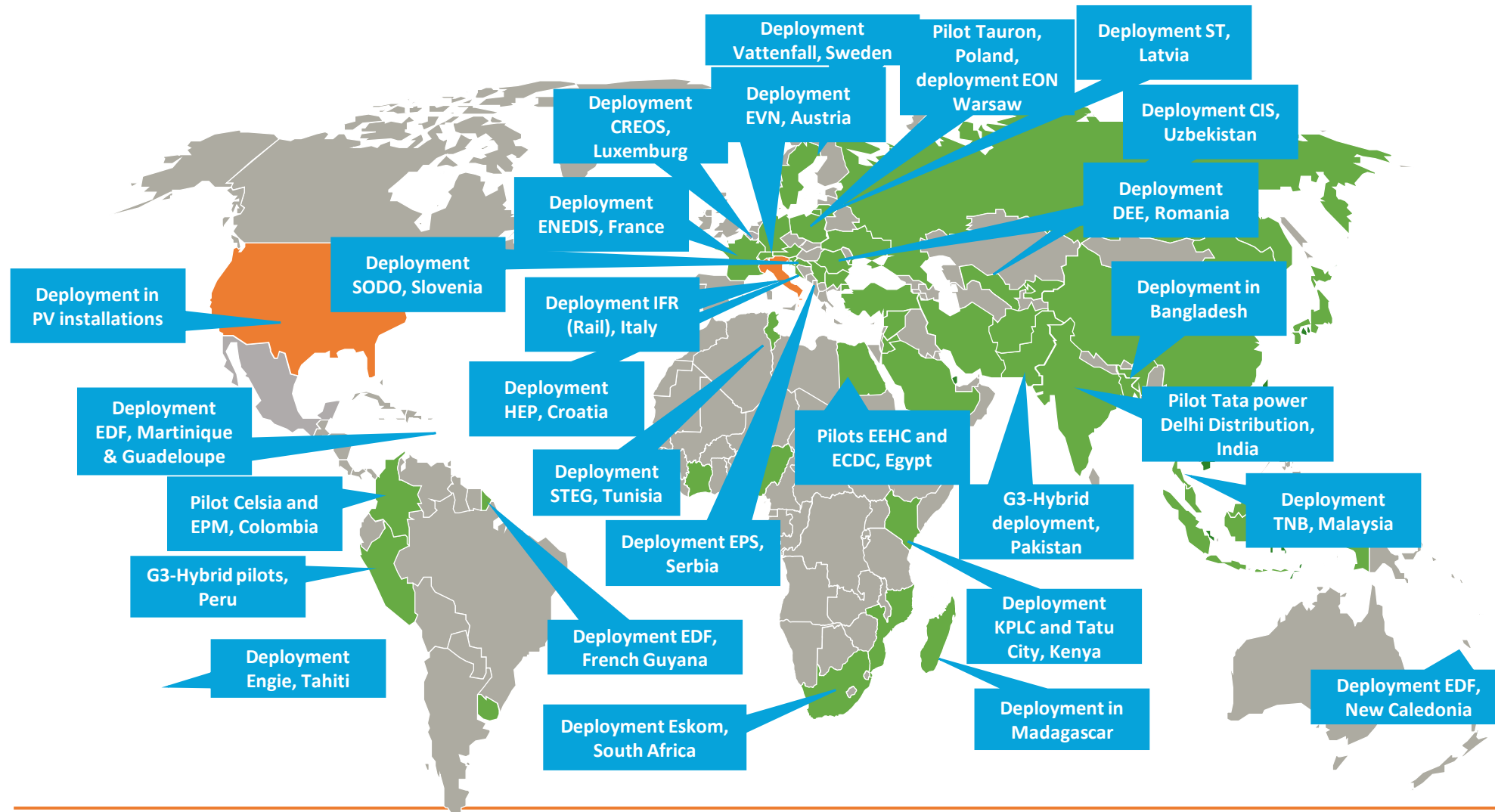
# G3 is a mature Technology



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## Over 80 million G3-PLC products in more than 30 countries





Each communications  
technology on itself has its  
limitations

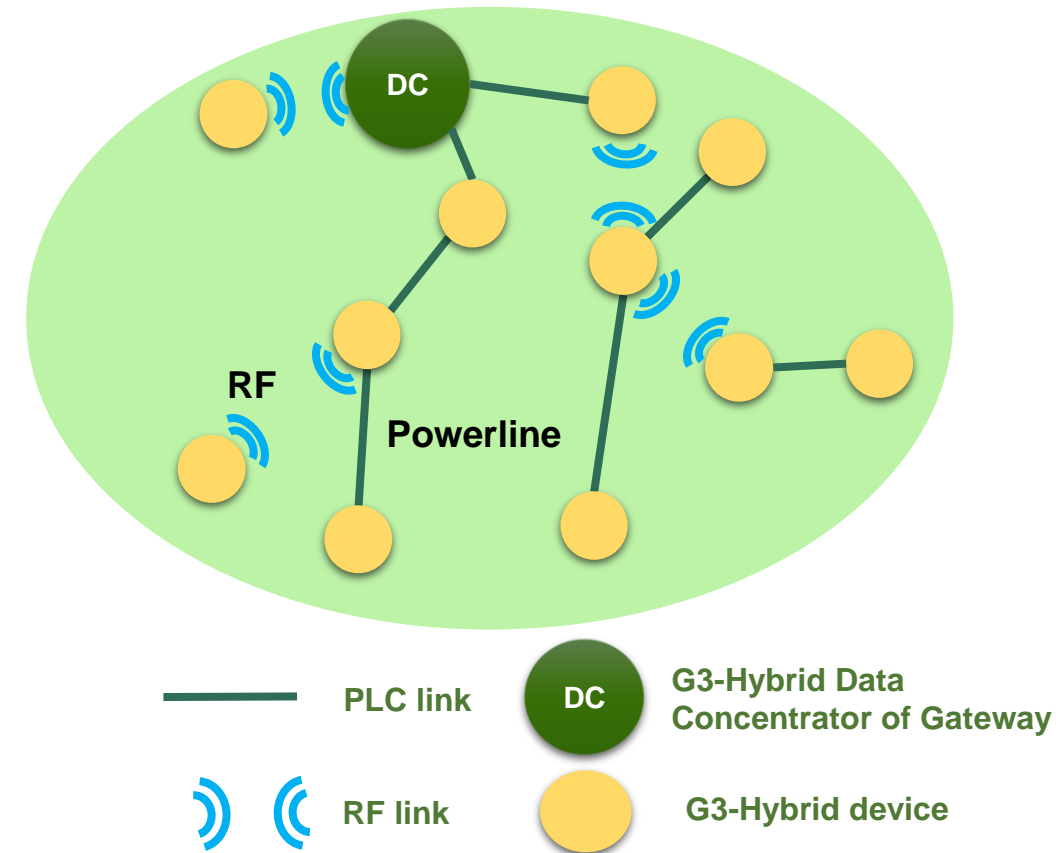
That is why we developed  
**G3-Hybrid**



## RF mesh and power line communication in one single solution

- Each node can use PLC as well as RF for communication
- For each link, the 'best' channel is selected - at network startup and dynamically adjusted
- Maximises coverage and connectivity
- Strongly reduces the complexity of the roll-out

Hybrid RF+PLC Mesh Network



## Key features and benefits

**1 Adapts to network conditions**

- Each device in the hybrid mesh network can use PLC as well as RF for communication. The best channel is dynamically selected.

**2 Cost-effective**

- Avoids high costs associated with achieving the last percentages of connectivity when using a single technology
- No telecommunication or license fees

**3 Open standard & Interoperable**

- Open international standard published by ITU
- Strong certification enabling multi-vendor implementations



**4 Supports IPv6**

- Facilitates true IPv6 addressing, enabling seamless integration of various application profiles



**5 Low-power operation**

- Supports RF-only and low-power operation devices, enabling communication with battery-powered devices

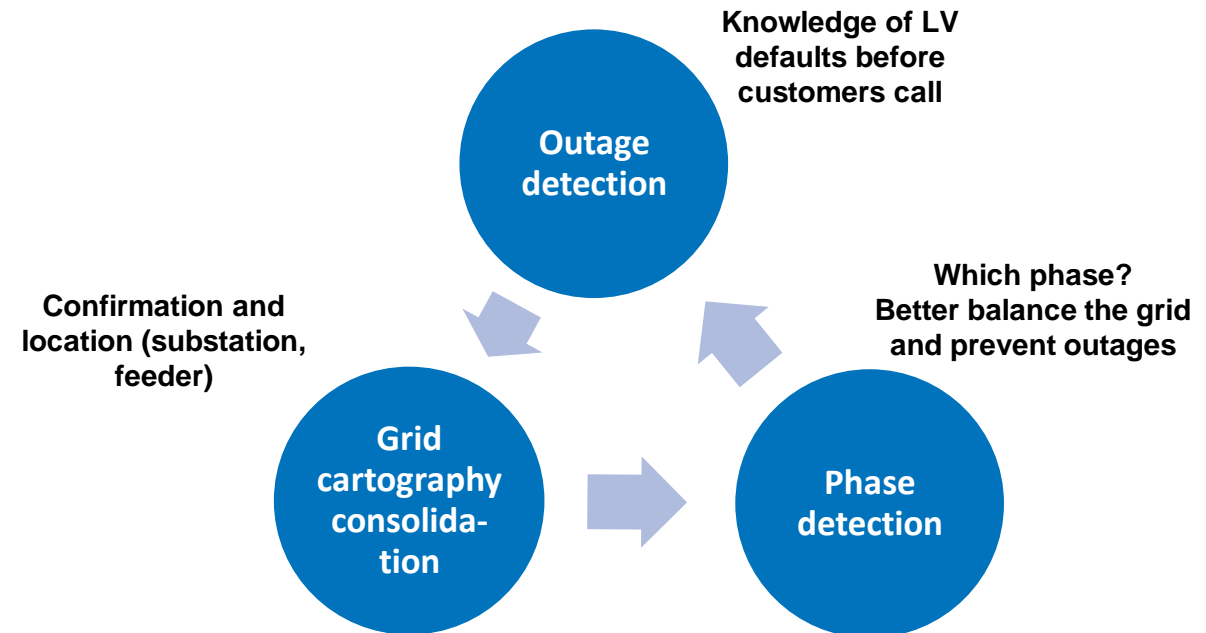
## Examples of value-added services running on top of G3 meters ...

Beauty of PLC : Telecom Links = Electrical Links ! → Grid info for free



1 grid connection BUT PLC enables to look beyond the current knowledge of grid cartography (floors 1-8 + floors 9-16)

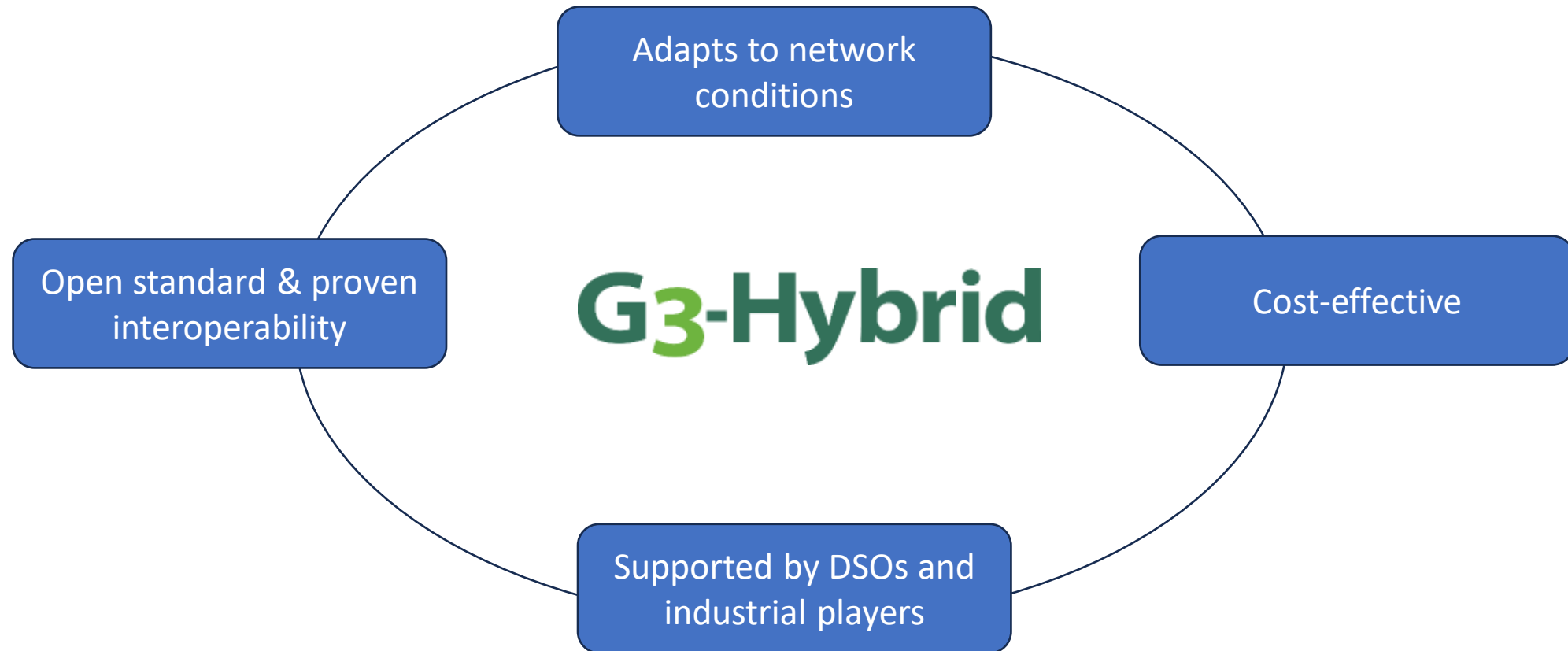
2 meters were incorrectly referenced



... supporting DSO's to reduce technical and non-technical losses



# G3-Hybrid: A powerful communication backbone for the Smart Grid!



# THANK YOU!

*For further Information:*

*Visit booth #24*

*generalsecretary@*  
*g3-alliance.com*

*www.g3-alliance.com*

