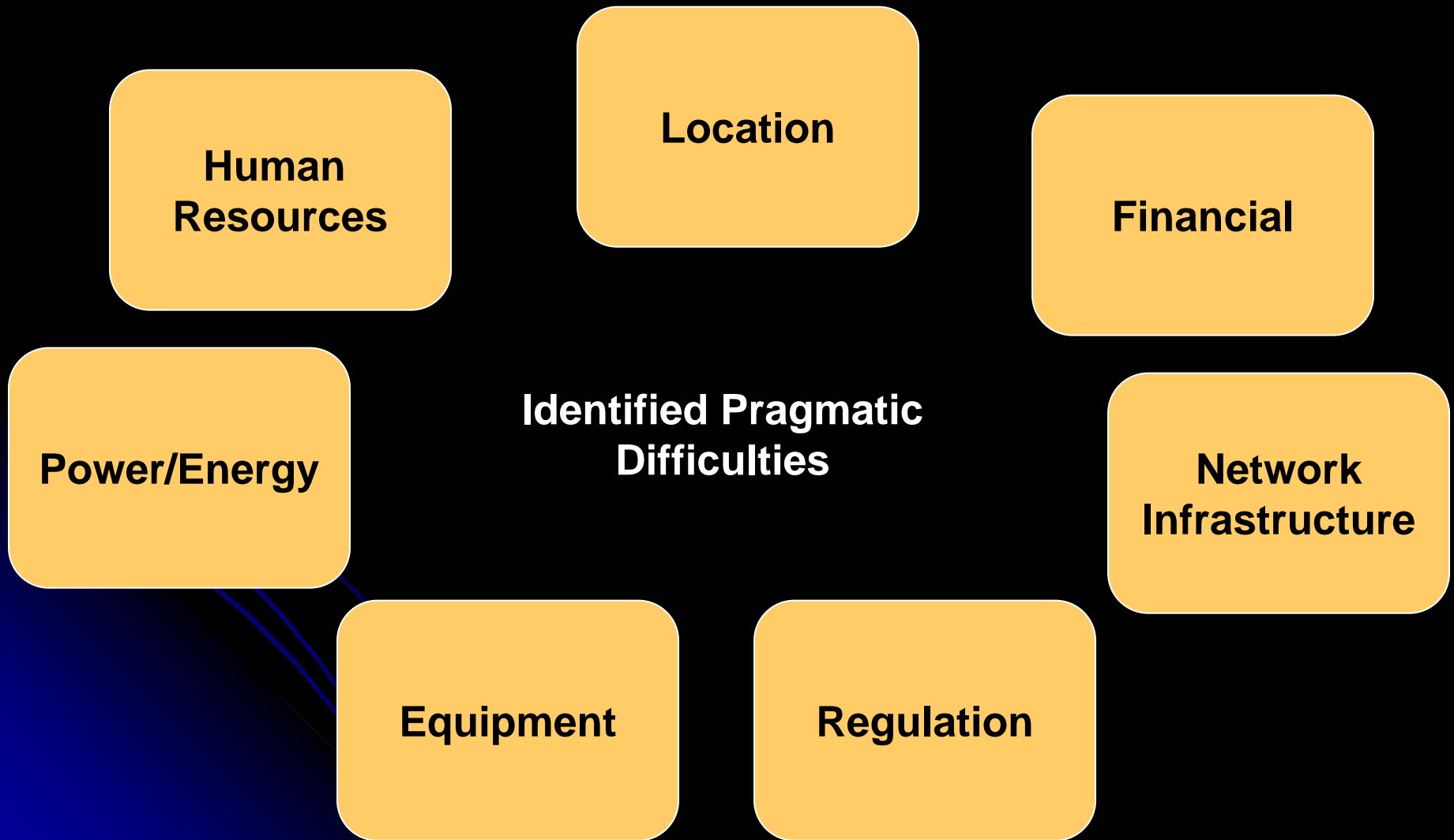


PROBLEMS AND REMEDIES FOR PLANNING/DEPLOYING IP BASED NETWORK INFRASTRUCTURE

GROUP 6



PRAGMATIC DIFFICULTIES IN INTRODUCING NEW TECHNOLOGY AND/OR OPERATING REAL NETWORKS



1. LOCATION

- Rural area / city
- Infrastructure layout – mountain, island, forest
- Population density – low/high demand vs cost

2. FINANCIAL

- CAPEX and OPEX
- Investment on infrastructure and equipment

3. NETWORK INFRASTRUCTURE

- QoS and Standardization
- Interconnectivity
- Interoperability

4. REGULATION

- Regulatory framework
- Flexibility to encourage technology innovation

5. EQUIPMENT

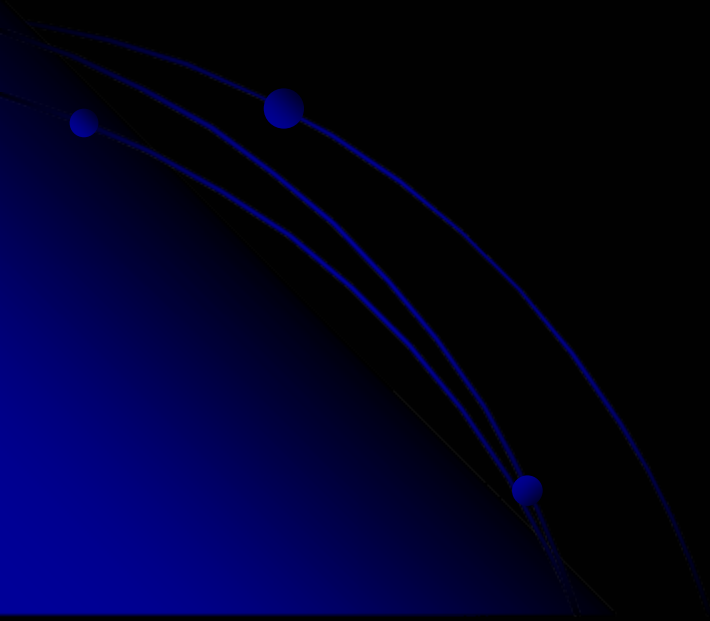
- Multi vendors, multi price
- Possibility to use of alternative transmission medium – fibre optic, microwave

6. HUMAN RESOURCE

- Lack of knowledge and skilled employees
- Technical Assistance / know-how
- Technology change rapidly- need continuous training plan
- Cooperation with international organization – transfer of technology

7. ENERGY

- Lack of electricity in rural areas
- High cost of electricity
- Limited energy resource



THE PRECEDENCE OF SUCH DIFFICULTIES

- The group had decided to address the **Energy** as the priority among the list of difficulties.

- Why?

In certain area (example Africa) many area has very limited energy resource. Electricity mostly generated by hydroelectric. Many development still need to be implemented including the ICT infrastructure.

SUGGESTION TO SOLVE THE ENERGY PROBLEM

1. Technology methodology

- Feasibility study of potential energy resources like solar, wind, geomass, gas and biomass to generate energy
- Produce a strategic plan on how these energy resources can support the energy requirement of the network
- Encourage R&D activities in these areas.
- Promotion of energy saving

2. Finance resource

- Require investment on the infrastructure to generate energy
- Funding resources – government, private/industry/foreign organization loan or fund

3. Human resource

- Need a skilled planner to design and plan the cross sector (energy, water, communications) strategic collaboration to solve this matter.
- Foreign consultant to give technical advice and help train the local employees.

3. Human resource (cont....)

- Dedicated committee consists of experts from communication and energy sector to look into this matter
- Continuously human capital training plan
- Allocated specific budget for training

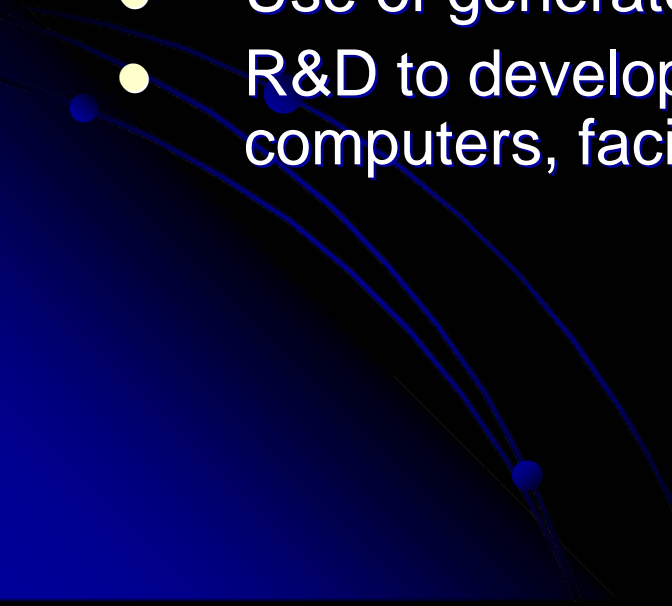
4. Management

- Establish strategic cooperation between energy and telecommunication industry
- Agreement among several countries in the same region to sell/ buy energy.

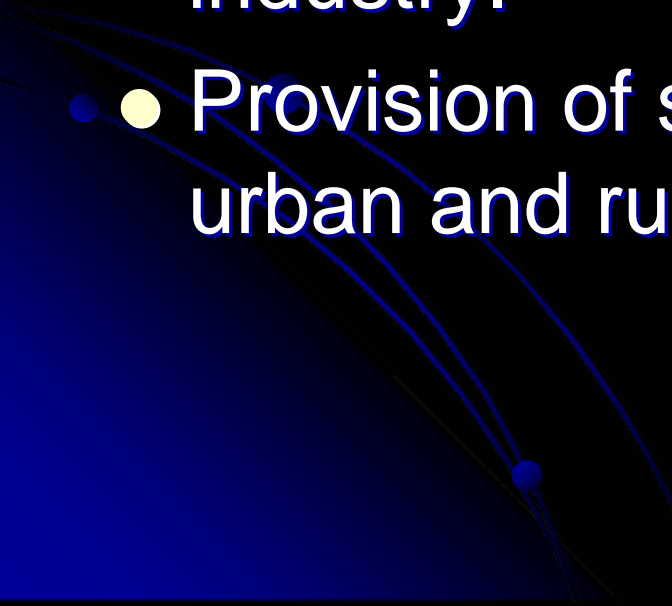
5. Maintenance

- Improve mechanism on the energy distribution system

6. Equipment

- Use of the energy efficiency devices especially in industrial areas (e.g telecommunications)
 - Use of solar panel devices targeted in rural area
 - Use of generator
 - R&D to develop energy efficiency devices/parts for computers, facilities, network equipment
- 

CONCLUSION

- To ensure the smooth implementation of NGN and ICT, energy is one of the vital element.
 - Assuring business viability for ICT industry.
 - Provision of sufficient delivery of energy in urban and rural area.
- 

THANK YOU

GROUP 6

- GBONIMYS, C : Guinea
- SAR, C : Cambodia
- CHALEUN, S : Lao
- ARSHAD, N : Malaysia