CLOSING THE DIGITAL DIVIDE IN SIERRA LEONE TERTIARY INSTITUTIONS:
The Case for a National Research & Education Network (NREN)

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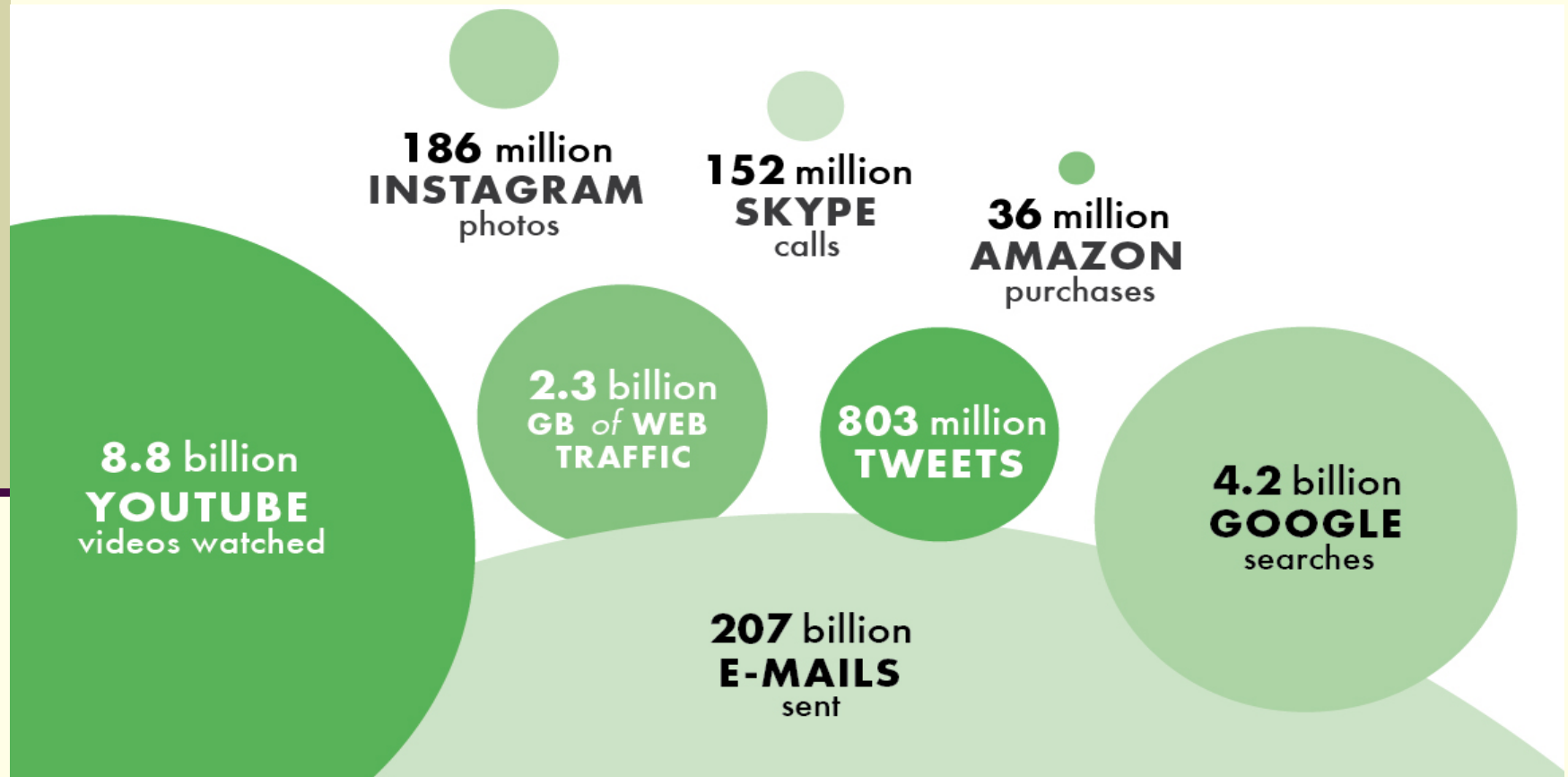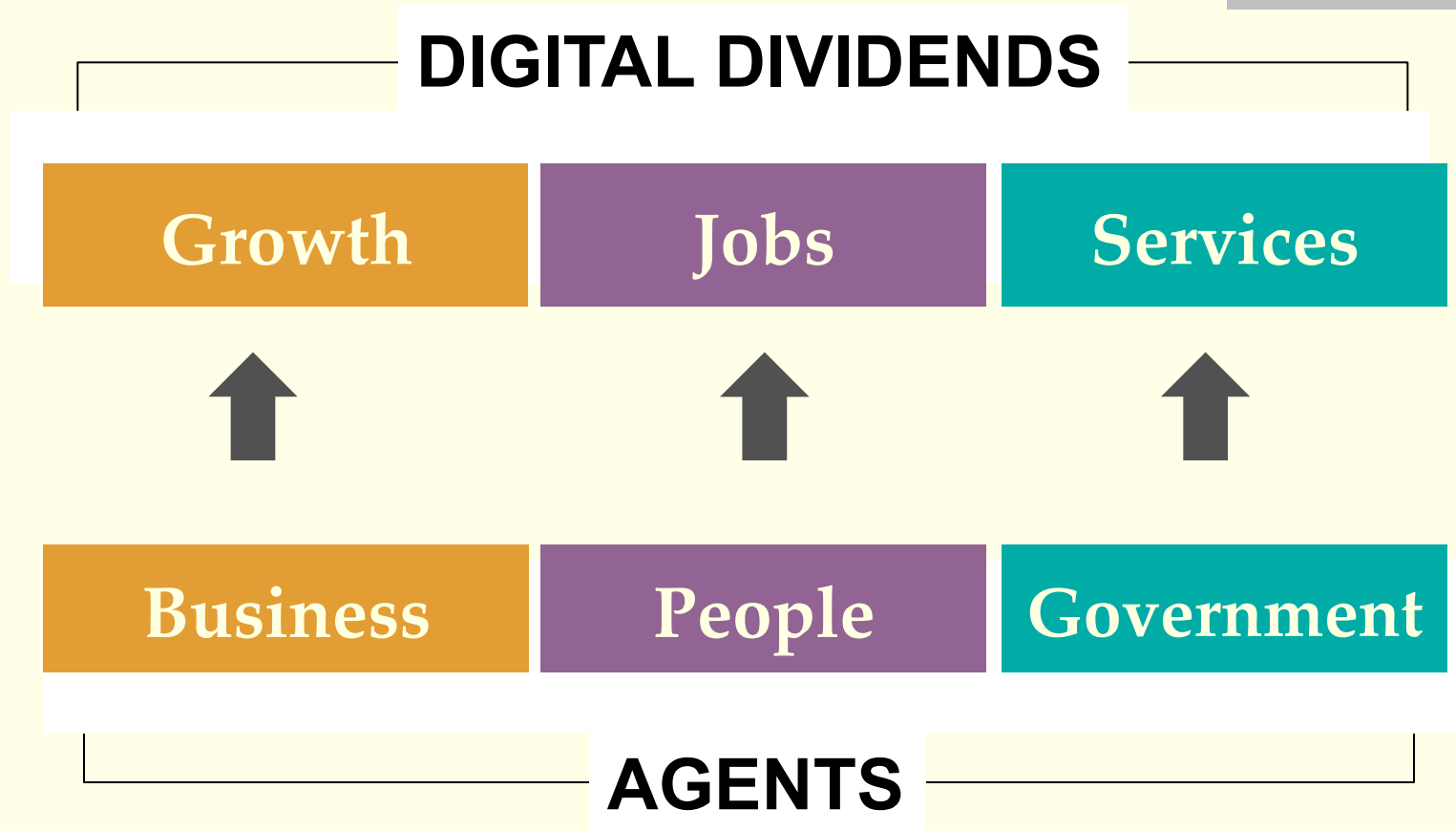
OUTLINE

- ➤ **THE GLOBAL DIGITAL OUTLOOK**
- ➤ **CHALLENGES IN RESEARCH & EDUCATION**
- ➤ **NREN – WHAT IS IT?**
- ➤ **SLREN – CORE OBJECTIVE**
- ➤ **THE CASE FOR SLREN**
- ➤ **SLREN - CUSTOMERS & SERVICES**
- ➤ **FUNDING OPPORTUNIY**
- ➤ **NEXT STEPS**

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Global Digital Outlook:
The Dividend

Digital revolution has brought many private benefits

186 million **INSTAGRAM** photos

152 million **SKYPE** calls

36 million **AMAZON** purchases

8.8 billion **YOUTUBE** videos watched

2.3 billion **GB** *of* **WEB TRAFFIC**

803 million **TWEETS**

4.2 billion **GOOGLE** searches

207 billion **E-MAILS** sent

But are countries reaping sizable digital dividends?

DIGITAL DIVIDENDS

Growth	Jobs	Services

↑ ↑ ↑

Business	People	Government

AGENTS

Are the benefits reaching everyone, everywhere?

Global Digital Outlook:
The Divide

But a significant digital divide remains. Out of **7.4 Billion** World Population in 2016:

6 BILLION *without* BROADBAND

4 BILLION *without* INTERNET
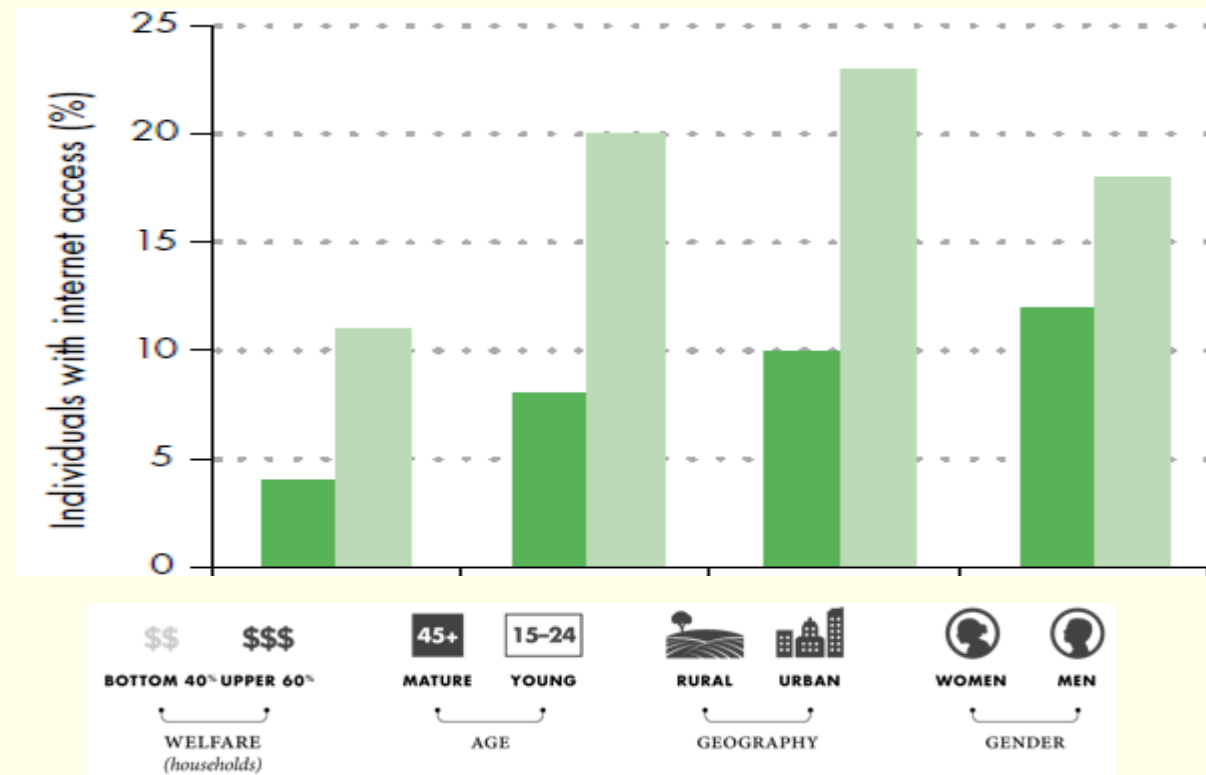
2 BILLION *without* MOBILE PHONES

0.4 BILLION *without* A DIGITAL SIGNAL

Divides persist between and within countries—in access and capability

… between and within African countries—in access and capability

DIGITAL HAVES

Wealthy young men in cities

DIGITAL HAVE-NOTS

Poor older women in rural communities

Individuals with internet access (%)

WELFARE (households): BOTTOM 40% $$, UPPER 60% $$$
AGE: MATURE 45+, YOUNG 15–24
GEOGRAPHY: RURAL, URBAN
GENDER: WOMEN, MEN

Challenges in Education & Research

➢ Large gap in terms of Digital divide

➢ Inadequate flow of educational and research content to schools, colleges and universities,

➢ Not flexible in terms of location and schedule for both teacher and student

➢ Inadequate research activities and an underdeveloped research infrastructure,

➢ Limited interaction between academic and research community, industry and government,

➢ Limited regional cooperation and collaboration in sharing knowledge between researchers, teachers and educators

➢ Lack of technical expertise and visionary capability that has curtailed competitiveness of the country,

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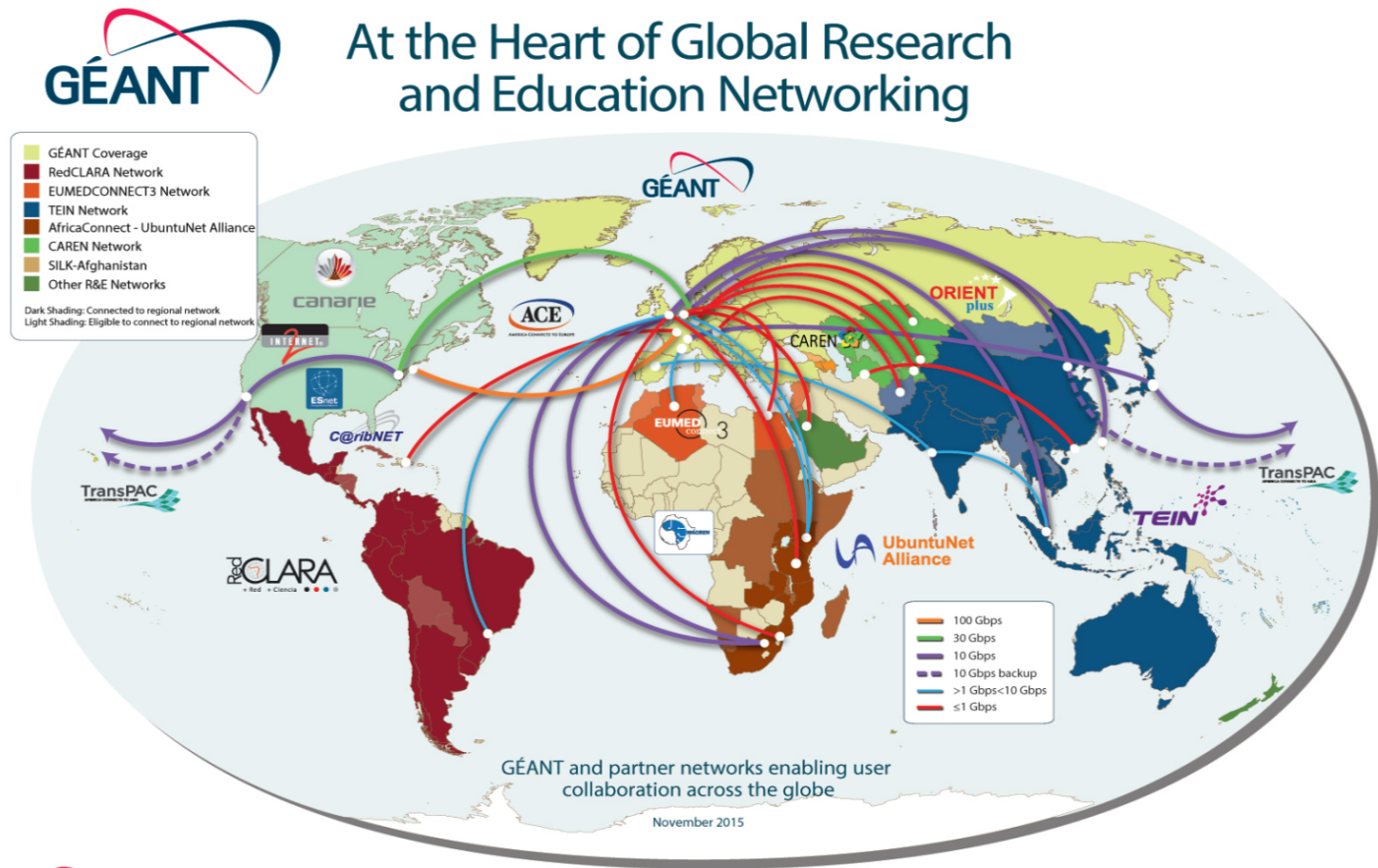# SO HOW DO WE OVERCOME THESE DILEMMAS?

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THE NREN – What is ?

➢ National Research and Education Network (**NREN)** is a not-for profit organisation providing advanced ICT services to the research and education communities.

➢ NRENs exist to enable efficient, reliable data communications and networking services for their nation's research and education communities.

➢ The ultimate purpose of an NREN is to serve scholars and innovators, ensuring that research and development is contributing to the local and global economy

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Global Research and Education Network

At the Heart of Global Research and Education Networking

GÉANT and partner networks enabling user collaboration across the globe

November 2015

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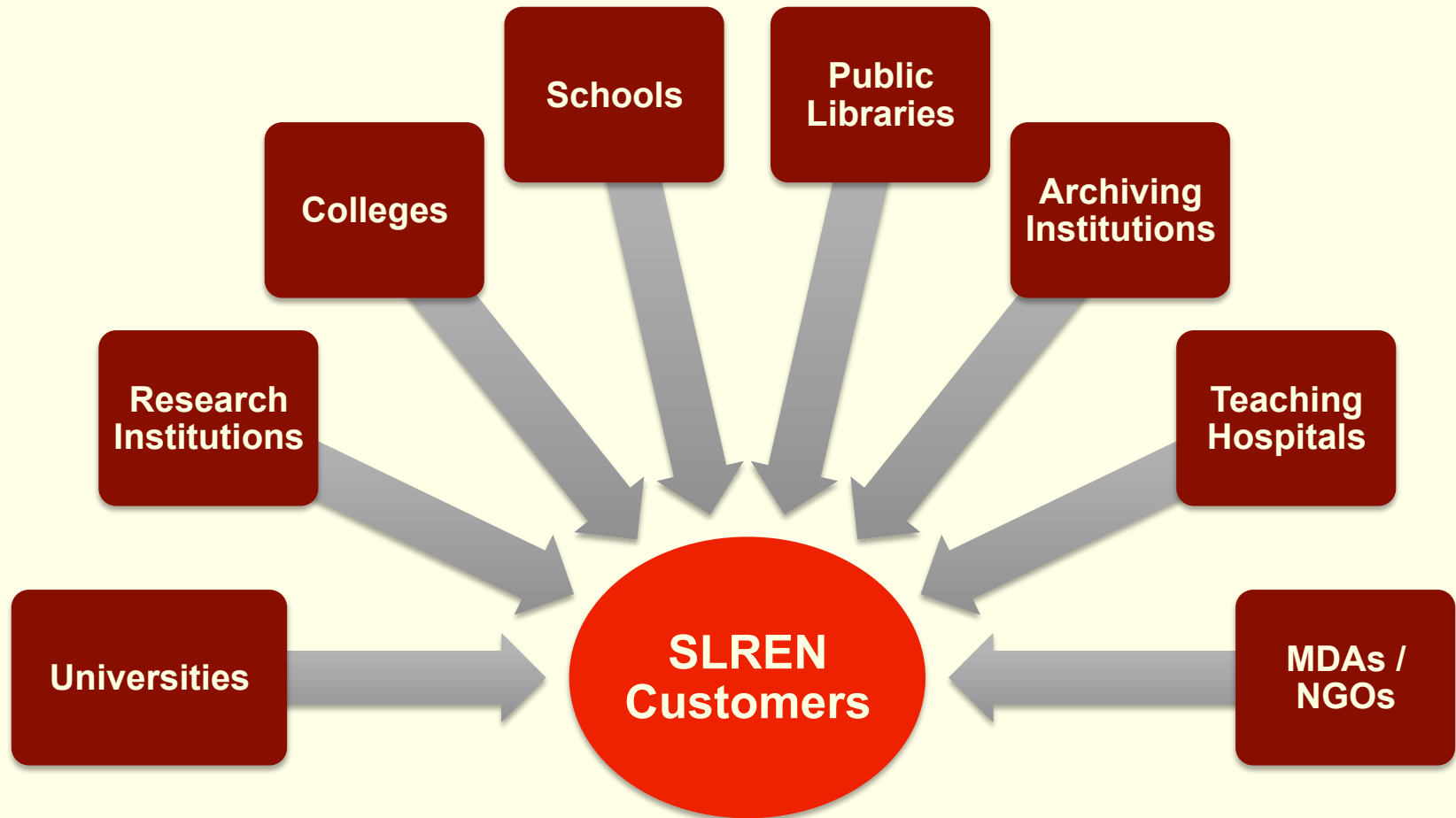
The SLREN – Objective

To develop high-quality information and telecommunications infrastructure for the benefit of Sierra Leonean higher education and research institutions
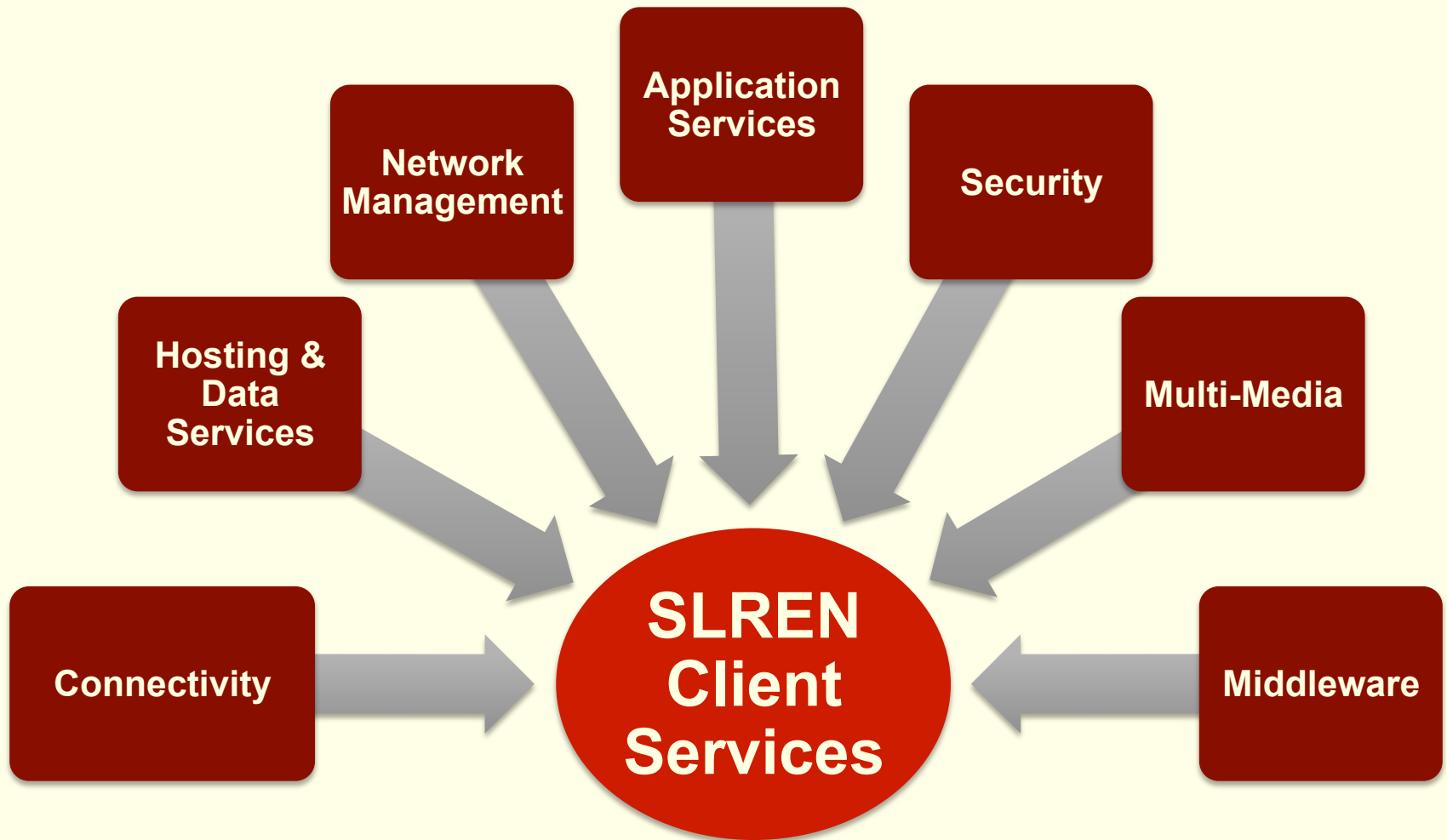
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Why SLREN?

➢ Catalyze the rapid deployment of a high speed general purpose digital communications infrastructure for Research & Education

➢ Share technology services and resources among members

➢ Engage in national, regional and international collaboration in education and research

➢ Join a common culture and community for education and research organizations

➢ Engage in shaping legislation to in support the use of technology and networks in education and research

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Customers

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Core Services

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Fundamental Challenges

- ➢ Prohibitive cost of connectivity. Africa was paying in excess of US$70 million annually for less that 1Gbps connectivity.

- ➢ Identify, provide and manage ICT services that enable and promote Research and Education. This has a wide spectrum of challenges ranging from infrastructure, collaboration to organizational management.

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Funding Opportunities

- ➢ National World Bank Funding available to emerging NRENs
- ➢ GÉANT network that connects European NRENs internationally receives financial support from the European Commission e.g. Africa Connect 1 & 2
- ➢ Government contribution to the development of SLREN
- ➢ Contributions from SLREN member community

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Next Steps

➢ Stakeholder declaration for the establishment of SLREN

➢ Appoint interim Steering Committee and Management structure to oversee the establishment of SLREN

➢ Register SLREN as a non profit making organisation

➢ Develop proposal and approach government and donor agencies for funding

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THANK YOU