

Global Network Architecture Vision & Ambition – A Status Update

Budapest, HU – 3-4 October 2017



2012

- Q3: NREN CEO Retreat – Global network interconnect is one of four major challenges

2013

- Q2: White Paper by Lambert & Wu

2014

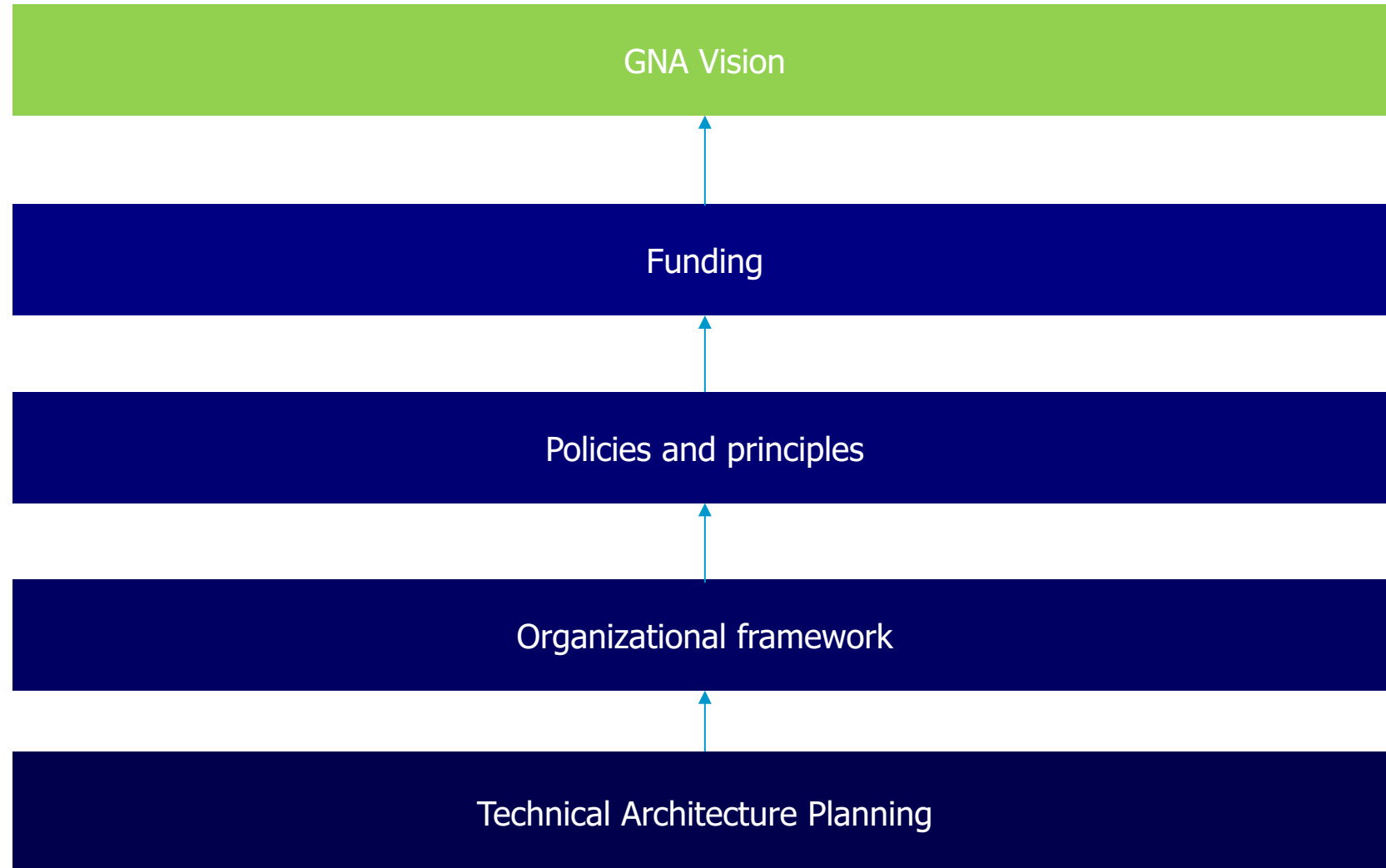
- Q1: GNA Technical WG started

2015

- Q2: Community support harvesting @ I2GS
- Q2: GNA Technical WG fully open

2017

- Q1: Reference Architecture v1 published: Links, GXPs, Ops
- Q3: Policy & Strategy WG started



The GNA Vision:

“Globally Connecting Science, Research & Education”

Goal: BW & Services between continents on par with within continents

The GNA Mission:

- Inclusive “architecture”
- Increase collaboration and resource sharing
- Maximizing utilization of funds
- Aligning investments in intercontinental circuits



1. GNA Technical Working Group

- Technical Reference Standards
- Operational Paradigms
- Provisioning structure

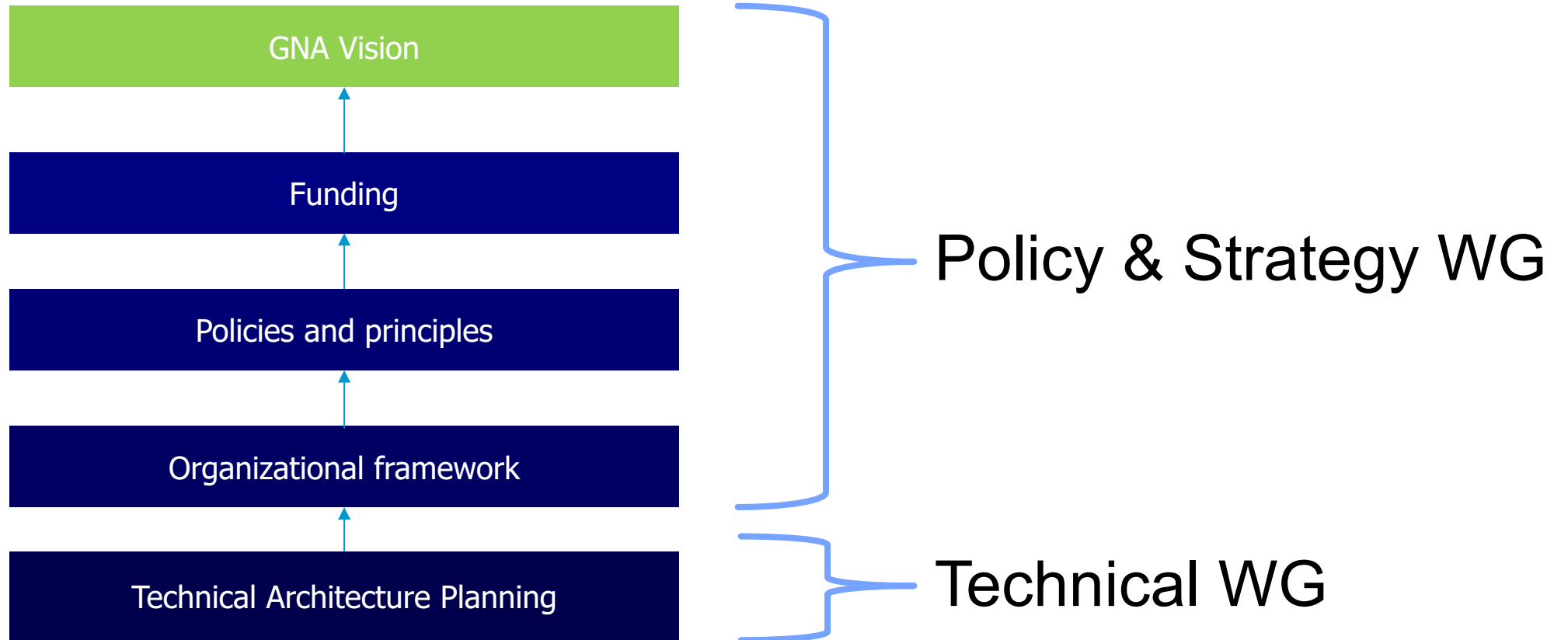
2. GNA Strategy & Policy Working Group

- Strategy & Vision
- Funding
- Policies
- Procedures
- Behaviour

GNA Framework

Technical

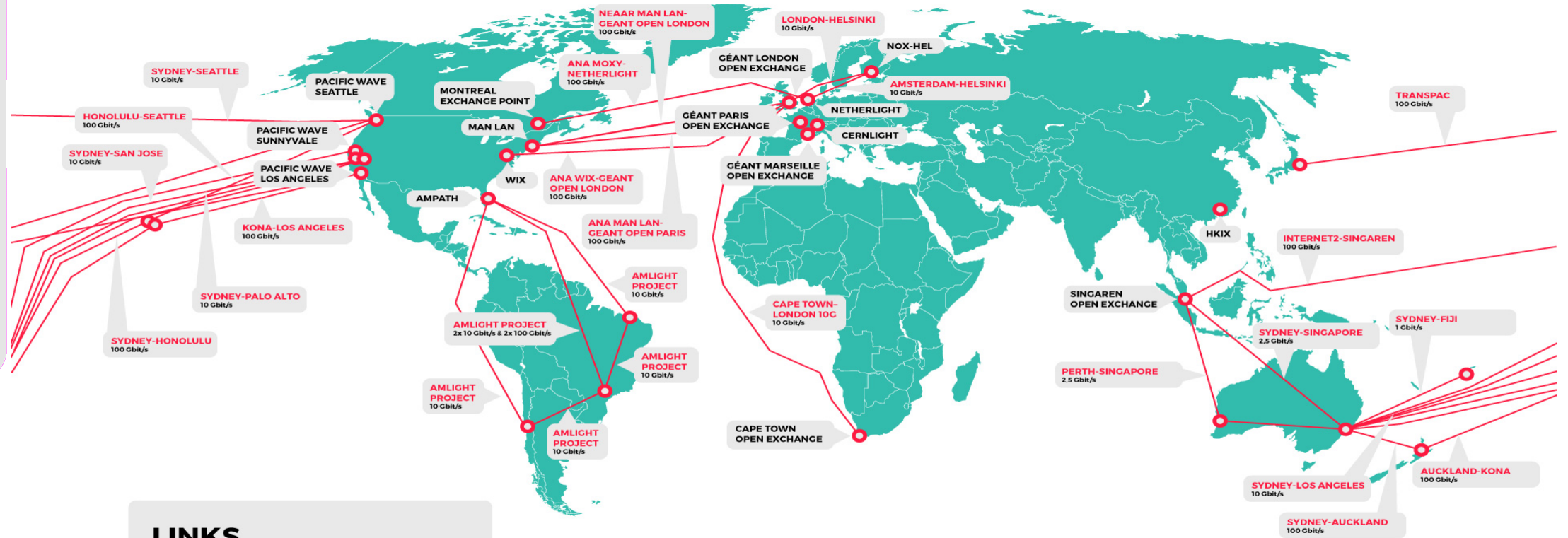
**Policy &
Strategy**



- **Participation:**
 - Contribute Resources
 - Contribute to and comply with GNA Architecture
 - Adhere to Policies & Practices
- **Restrictions**
 - State your limitations – AUP
- **Fair use**
 - Usage and contributions reflects a fair and equal use principle
 - Common endeavour
 - Contribute resources benefitting common good
- **Behaviour**
 - Based on trust and open discussion between partners
 - Working towards common goal
 - All strengthen national, regional and international reach



- The GNA concept has achieved near-universal buy-in
- The 'Proof of Concept' project (ANA) has proved successful and stable
- Consortia are developing (similar to ANA) in other regions
- The number of Global Exchange Points continues to grow:
 - Montreal, Canada
 - Cape Town, South Africa
- Formal announcement of the GNA Phase One implementation @ I2 Global Summit 2017



**LINKS
IN THE GNA PHASE I**

APAC
AARNet
SingaREN

EMEA:
GÉANT
NORDUnet
SANReN (and TENET)
SURFnet

AMERICAS
Internet2
ESNet
CENIC/PacWave
AMPATH/AmLight
NEAAR
TransPac

- Policy & Strategy WG working on first tasks
- Phase I consolidation happening
- GNA v2.0 architecture: Strawman's proposal



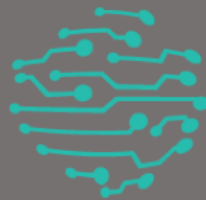
Thank You. Questions?

GNA website:

<https://gna-re.net/>

GNA video:

https://video.nordu.net/media/GNA+Whiteboard+Video+%28Final%2C+2017%29/0_nrqtsc5w



global network architecture