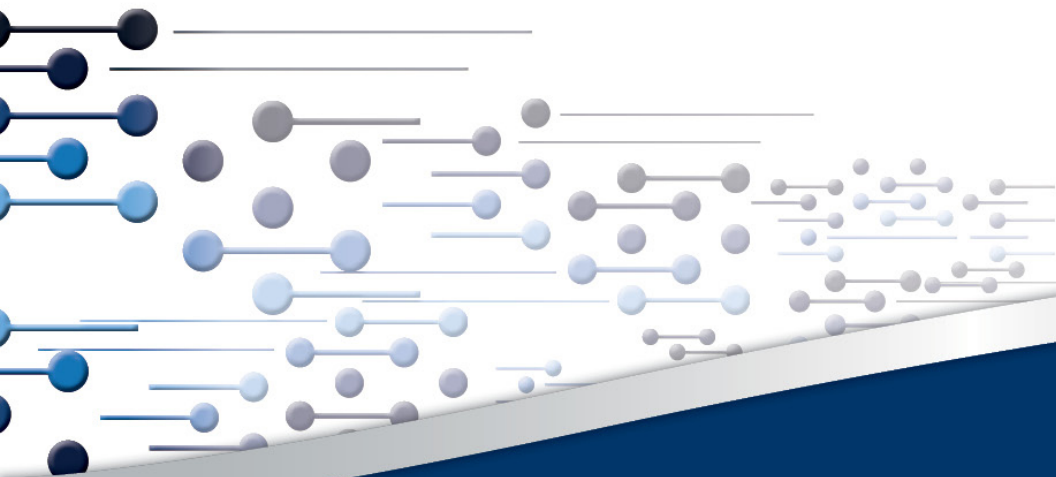


WOAN Capacity requirements workshop

CSIR Convention centre
10 July 2017



Project Objectives

General objectives

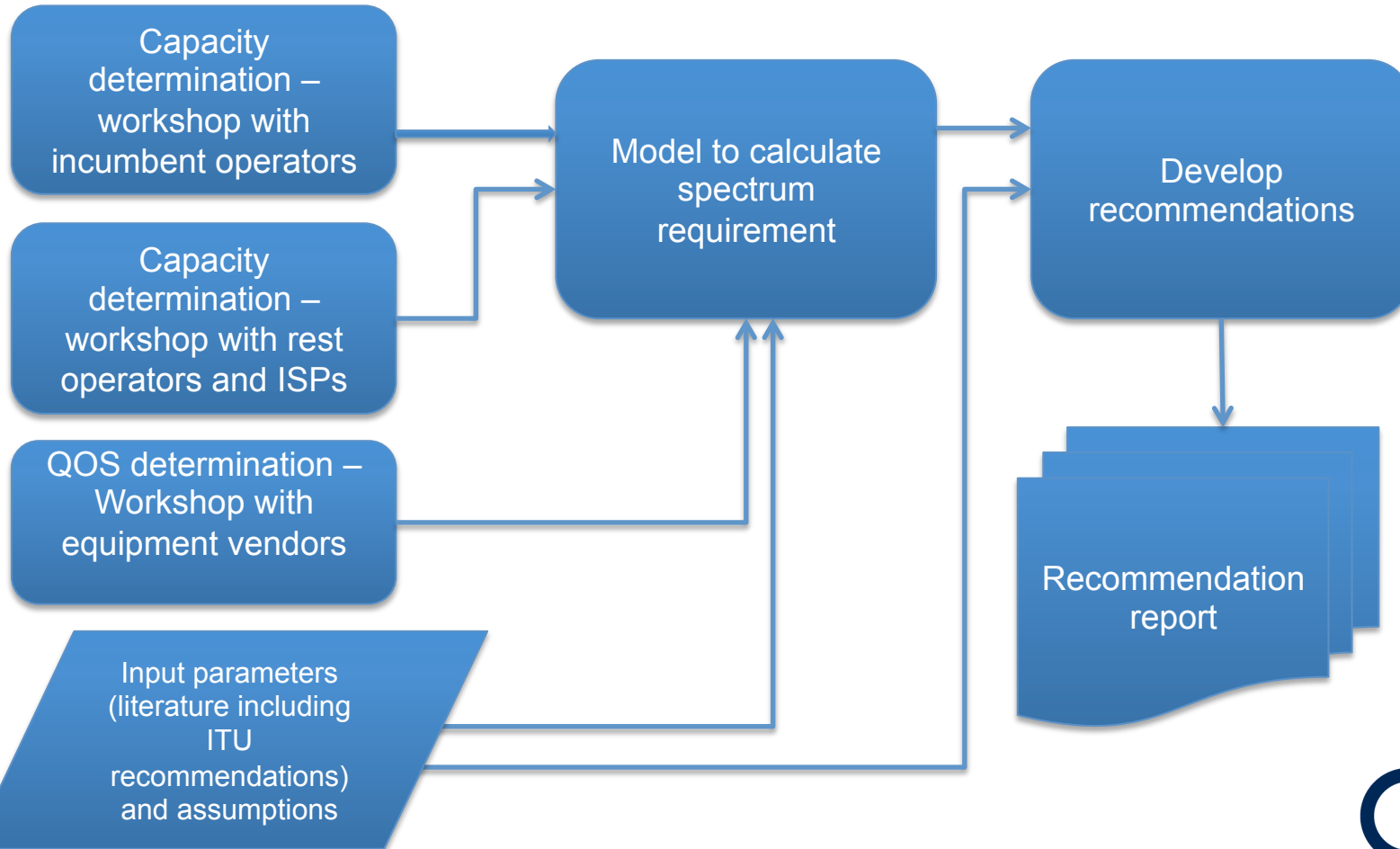
- The objective of the study is to advise the Department of Telecommunications and Postal Services and ICASA on the amount of spectrum required to ensure that the WOAN can meet requirements of SA Connect.

Specific objectives

- Estimate capacity of the WOAN if all the high demand spectrum is assigned to the WOAN.
- Determine sufficient amount of both coverage and capacity spectrum to meet Quality of Service targets of SA Connect.
- Determine amount of spectrum after identifying spectrum for WOAN, if any, available for other licensees.

Project Approach

The high-level view of the methodology for the project is depicted below.



How is capacity defined

- How is capacity defined on your network?
 - Up-link and Down-link capacity or sum of both
 - Expected peak capacity per person and average capacity per person
 - Would you consider aggregating capacity over entire cell as a good measure
 - e.g. factoring in higher performance closer to the the cell and poorer performance at edge with assumed even distribution of population in cell

How would you understand SA Connect target of 5 Mbps / person?

What are your capacity requirements from WOAN?

- How much capacity do you require from WOAN?
 - What kind of traffic mix do you expect to push through the WOAN?
 - What contention ratios do you expect?
- Do you believe that the incumbent's current capacity or bandwidth available per cell on a site is well matched to the population served?

Extra information that could be useful

- How would you define the coverage edge? e.g. uplink receive sensitivity and downlink receive sensitivity?
- What is your current methodology for spectrum demand and capacity modelling in rural and urban areas?
- Is there any other information that is not covered by above questions that you consider relevant?