

LODDON CAMPASPE COUNCILS



27 September 2021

2021 Regional Telecommunications Review Secretariat
Department of Infrastructure, Transport, Regional Development and Communications
GPO Box 594
CANBERRA ACT 2601

Dear Sir/Madam,

SUBMISSION TO THE TELECOMMUNICATIONS REVIEW

I am pleased to make this submission to the 2021 Regional Telecommunications Review on behalf of the Loddon Campaspe Group of Councils, Victoria.

The Loddon Campaspe Group comprises the municipalities of Buloke, Campaspe, Central Goldfields, Gannawarra, Greater Bendigo, Hepburn, Loddon, Macedon Ranges and Mount Alexander.

Our submission also includes contributions from Kirkland Lake Gold, operators of the Fosterville Gold Mine near Bendigo, Victoria's largest gold producer employing approx. 700 (FTE) people and Bendigo Health a leading regional health service, with approx. 4000 staff and a catchment area covering a quarter of the size of Victoria.

Loddon Campaspe region occupies a unique place in central and north-west Victoria. Ranging from the Murray River in the north to the floodplains of the mid-Loddon River in the north-west and the Macedon Ranges in the south-east, the region extends from the state's extremities to within 50 kilometres of central Melbourne. It is home to 270,000 Victorians, nearly half of whom reside in the urban centre of Greater Bendigo.

We are home to Bendigo Adelaide Bank – Australia's fifth largest bank – an advanced, high precision manufacturing and engineering sector, extensive education facilities including campuses for La Trobe, Monash, Melbourne and RMIT and TAFE, comprehensive health care services including a regional, teaching hospital at Bendigo, significant gold mining operations employing approximately 1000 people and a thriving tourism and hospitality sector – all looking for fast, reliable, competitively priced mobile and digital connectivity.

The region has a rich natural and built heritage, attractive towns, a pleasant climate, and social and economic diversity. Its geographic location makes the region highly accessible to and from Melbourne and surrounding regional areas and is an alternative to Melbourne in terms of high level service provision.

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The network of larger and smaller towns, most of which connect closely to Bendigo, are central to the region's unique character. Larger centres such as Echuca, Gisborne, Kyabram, Kyneton, Castlemaine, Daylesford, Maryborough and Kerang act as district hubs to smaller surrounding settlements and rural areas, both inside and beyond the regional boundaries.

The majority of the Loddon Campaspe region is made up of rural land, a significant proportion of which is used for diverse agricultural production, with irrigated dairying, cropping and grazing in the north-east and large-scale productive cropping, dryland and mixed farming in the north-west. Wineries, orchards and olive groves feature throughout the region, with one of the world's largest single estate olive groves located near Boort.

The mix of towns, farmland, forest and goldfields heritage provide an attractive landscape that draws tourists from within and outside the state.

Thank you for the opportunity to contribute to this review.

Telecommunications is a critical infrastructure for our region and we welcome working with all levels of Government to initiate further investment and improvements.

My fellow Mayors and I would be pleased to discuss any of the matters we raise in this submission.

Yours sincerely,

A handwritten signature in blue ink that reads "Jennifer Alden". The signature is written in a cursive, flowing style.

CR DR JENNIFER ALDEN
MAYOR, CITY OF GREATER BENDIGO
On behalf of the Loddon Campaspe Group of Councils

2021 Regional Telecommunications Review

Submission by the Loddon Campaspe Group of Nine Councils

Response to Panel's Questions

1. What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?

Many residents in our Loddon Campaspe (LC) region cannot access affordable and reliable telecommunication services and are disadvantaged socially and economically. With limited public transport options, many of our residents struggle to even get to larger towns/regional centres to access free internet options such as those offered at public libraries.

For example, in our region when hard border checkpoints were introduced between Victoria and NSW, many local residents who do not have access to a computer or the internet or a printer, found themselves at libraries seeking assistance to obtain cross border permits.

Residents who relocate to regional Australia assume they will be able to access telecommunication services at metropolitan standards and pricing, but this is not always their experience.

Regional Victoria may not have as many telecommunication providers and as a result prices may not be as competitive as metropolitan markets. Limited access to fibre to the premises (FTTP) technology is available in regional Victoria and satellite wireless is expensive by comparison.

Our region has a strong agricultural sector which is using more and more technology to create efficiencies, improve farm practices and boost production. Manufacturing is becoming more sophisticated and the growing appetite for technology for robotics is increasing the demand for telecommunication services in areas that are sometimes poorly serviced or are severely constrained when trying to implement their own digital infrastructure let alone have access to business grade enterprise ethernet (EE).

The Regional Connectivity Program (RCP) which is funding the delivery of 'place-based' telecommunications infrastructure projects across regional, rural and remote Australia is welcome because it will help regions improve telecommunication services and lift the social and economic opportunities on offer.

A key example in our region is the Shire of Campaspe's successful application for funding to support the delivery of FTTP technology to the Rushworth district. We expect this will have a huge impact on the social and economic opportunities for residents.

Further, strong telecommunication services are increasingly seen as essential to supporting or enhancing social connectedness, business capability, investment and even real estate prices.

Councils throughout the region are currently engaged in community consultation as they prepare new community visions and Council plans following elections last year. Access to better

telecommunications is repeatedly being identified as an issue of ongoing concern, and the need is exacerbated by impacts of COVID lockdowns, restrictions and resulting cross border issues.

The same Councils report increased marginalisation for the more vulnerable members of our community, including but not limited to those who are:

- Indigenous
- Living with a disability
- Living at or below the poverty line
- Experiencing domestic violence
- Living with a mental illness
- Aged
- From culturally and linguistically diverse communities
- Youth
- LGBTQIA+

Marginalised people will be further disadvantaged if they are not provided with the means to access better and cheaper telecommunications.

Mobile connectivity remains a priority for regional users. Major population centres appear to be well served, but coverage and performance is unsatisfactory in many rural and remote areas.

The public coverage maps underpinning this analysis are unable to reveal locations within population centres where the mobile services are inadequate to support, for example, basic web-browsing. This highlights the need for better coverage data to guide future mobile infrastructure investment in these places.

The high-level picture for businesses and households in primary production areas and tourist sites is concerning. Mobile coverage is severely lacking and fixed connectivity is below par to the point it impacts on services such as WiFi for visitors, potentially undermining economic outcomes for businesses in these areas.

Major roads have good mobile coverage according to public coverage maps, but service is patchy on minor roads. The Bendigo-Melbourne commuter rail link has good mobile coverage and in-carriage reception, but lower quality coverage and poor in-carriage reception on other rail links such as Bendigo to Echuca and Swan Hill, and Ballarat to Maryborough.

2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?

Regional Australia is experiencing increased demand for telecommunications services as more services move to online delivery, more workforces work online, more students study remotely, and the overall regional population increases. The volume of on-line activity is growing along with data, stability and bandwidth requirements. Video calling, real time collaboration and use of virtual networks are all increasing. These applications are hampered by network availability, stability and latency issues.

With more dispersed and smaller population centres than metropolitan Australia, regions experience barriers to equitable service availability. This is the situation with both fixed and mobile telecommunications.

Coverage maps for both the Optus and Telstra mobile networks, available online, show areas of our region with poor mobile coverage. Increasing mobile coverage in the LC region is challenging due to:

- lower return on investment for infrastructure providers due to small population clusters;
- the difficulties posed by geographic features such as hills and valleys, open expanses or wooded forested areas.

For example, the Shire of Macedon Ranges has designated 'significant landscapes'. The need to protect these much-valued landscapes removes some locations from consideration for some types of telecommunications infrastructure.

There is a persistent and significant divide in the quality of mobile services available to regional users compared to metropolitan users. This has important implications for public safety, economic development and general liveability.

Regional users have emphasised this issue recently, registering 312 blackspots experienced across the region as part of the Commonwealth's black spot funding program.

The Loddon Campaspe Digital Plan has necessarily relied on publicly available mobile coverage maps provided by the carriers to undertake an analysis of mobile coverage. The analysis reveals the maps to be too high-level and low resolution to enable us to identify areas where coverage is unreliable, weak and incapable of supporting the data services which users expect to access 'on-demand'. This means that while an area may appear from these maps to be well-served, the 'lived experience' of regional users at locations is often very different.

Consequently, even where the public coverage maps suggest a location has good mobile coverage, this should not be interpreted as suggesting there are no users who face challenges with their mobile services both within that place and when they move beyond the place analysed. Better data would provide a more complete picture of mobile coverage issues within towns and in areas not yet analysed by the Digital Plans.

3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?

- Greater transparency and setting minimum acceptable standards across the industry would go a long way to improve telecommunications.
- Planning a longer 'whole of life cycle' infrastructure cost benefit analysis of the options presented, combined with,
- Incentives for investing in rural and regional communities (hub and spoke model) lacking a competitive market or commercial 'choice'.

4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?

Service reliability can have a significant impact on the functioning of some of our communities. There are endemic and long-standing issues with the coverage and quality of our telecommunication services compared to metropolitan areas, the so-called 'digital divide'.

Our stakeholders have consistently emphasised the importance of improved digital connectivity for economic and social development. There are tangible economic benefits for our region arising from more investment in this area.

We will shortly be releasing a strategic business case for digital uplift across the LC region. A copy can be provided.

Critically, a place-based, integrated and comprehensive planning regime needs to be developed, region by region across the country. Our region stands ready to support such a pilot initiative to identify future digital infrastructure needs, address current shortcomings and encourage investment.

A survey conducted across the region in May 2021 identified that more than 70% of business respondents are not satisfied with their current telecommunications service reliability. Service reliability impacts on the ability of regional communities to actively plan and participate in business, social, learning and health activities online.

The survey specifically asked respondents what services or activities they had been unable to undertake due to a lack of connectivity. Almost 60% of responses referred to being unable to effectively and consistently access education services. In some municipalities, including Macedon Ranges, more than 90% stated they were unable to work 100% effectively from home due to connectivity shortcomings.

This long running difficulty has been brought into sharper focus by the demands placed on home connectivity during the current COVID response with some students unable to fully participate in home learning and workers unable to fulfil their employment obligations.

During natural disasters communication is critical. Patchy mobile connectivity severely impacts community's ability to act, react and stay safe.

During recent storm events in the southern and central parts of our region many residents were left without effective communication where interruptions to power supplies lasted longer than the battery back up at infrastructure points.

The inability of service providers to access their infrastructure safely to install generators extended this outage for days. This left communities isolated and unable to make contact.

5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?

- More investment and better understanding of the current network coverage and its shortcomings – noting that signal bars on devices are not reliable indicators of coverage. They differ between technologies and devices, there are no standards and almost every device is different.
- Providers should be required to publish easily understood and readily accessible data which empowers communities to digest its implications and advocate for change to address the digital divide.

- Universal standards on applications of future technology.
- Communications coverage should also be undertaken from a place based and community level within a regional context.
- Opportunities for co-investment between communities, governments and the private sector on possible solutions could also be auspiced under funding programs such as the blackspot program. Noting that all mobile phone and radio networks are subject to coverage limitations. Signals levels will vary due to local weather/atmospheric conditions, physical structures (buildings, tunnels or bridges) building materials (such as tin roofs) or geographic features (hills, forests, lakes, rocks). Coverage can be impacted by the type of building and construction methods. For example, 6 star rated homes and tin sheds create a radio frequency barrier making it difficult to expand coverage.

Additional funding could be allocated in future rounds which primarily focus on building resilience. This could be built into the Federal Government's Regional Connectivity Program Round 2 (timelines unknown at this stage), supported by the Victorian Government Blackspot, and private providers. Emergency management parameters and regional tourism routes for mobile connectivity could also be considered.

6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?

As a result of the nation's response to COVID-19, more Australians are moving to regional and rural Australia placing greater demand on local telecommunication services increase.

Many of our residents are now working remotely, participate in regular video conferencing meetings, access online streaming services such as Netflix, Disney Plus etc. Students are studying from home often via zoom or a similar application.

Staff are working from home using a combination of privately provided internet plus some work provided 4G. Much of the work undertaken is via remote desktop and cloud-based solutions. This trend is predicted to continue with staff expected to work remotely up to 40% of the time.

Further, residents in rural and regional areas have needed to take medical appointments to online, while many professional providers such as banks now offer video conferencing for customers for services such as loan interviews.

The result is greater demand on home internet connections.

For many households, this level of demand is hard to cater for, more especially as the costs for using telecommunications are on the rise.

The move to online learning and working was significant and saw a transformation in the ability to work from home. This growing understanding of the opportunity to work where you 'love to live' has paved the way to regionalisation of the workforce from the major cities.

This transformation can support continued regional growth.

Provided there is adequate digital connectivity.

Insights on Question 6 from Bendigo Health Care Group.

Bendigo Health is a leading regional health service with more than 4500 staff and a catchment area covering a quarter the size of Victoria.

Its three main campuses are in Bendigo, with many services extending to regional settings including areas such as Mildura, Echuca, Swan Hill, Kyneton and Castlemaine.

Bendigo Health provides a range of services across the lifespan including maternity, emergency, women's health, medical imaging, surgery, rehabilitation, community services, cardiology, cancer services and renal dialysis to the people of the Loddon Mallee region.

In addition to operating a large acute hospital, Bendigo Health offers sub-acute services including inpatient and outpatient rehabilitation, a regional mental health service, residential care, specialist clinics, dialysis and a range of outreach services such as hospital in the home.

A 766-bed service, Bendigo Health treats more than 51,000 inpatients, cares for almost 61,000 emergency department arrivals, delivers more than 1750 babies and performs more than 15,000 operations each year.

Bendigo Health is also running a Public Health Unit for the region to respond to the pandemic. The Unit undertakes testing, contact tracing and runs a State Vaccination Clinic to keep our community safe.

Introduction/comment

High speed internet is essential for all Australians and in particular regional and rural, remote communities.

Equity of service for consumers/business does not exist and there are still pockets of regional Australia, Victoria and Loddon Mallee that suffer from mobile black spots, have no or limited broadband service options and have minimal opportunity to compete for or transform business.

Technology is central to today's work and access to broadband is now a necessity that accelerates opportunity for business and consumers. In this uncertain and difficult economic time, we have to be careful that we do not slip back into the digital divide as unemployment grows, tough economic times continue and telecommunication companies tighten their belts and slow rollout of new innovative infrastructure/technologies.

Federal Government needs to create a long term support framework that provides ALL users with secure, reliable and sustainable telecommunication services during emergency events – fire, floods, pandemic.

COVID-19

COVID-19 has impacted businesses in many ways, traditional businesses closed, new opportunities opened up however it has changed our workplace, our workforce and the notion of "do anything from anywhere" or "remote anything" is real and here to stay.

Arguably the most significant change/impact was the ongoing shift to remote work and this has forced telecommunication companies to review their service offerings, pricing, technology rollout, service levels as the demand for greater bandwidth grows.

Healthcare viewpoint

COVID-19 impacted health care in many ways - disrupted our supply chains, increased demand for beds, medical equipment and workforce. COVID - 19 changed emergency department and inpatient models of care, disrupted scheduled care and shifted some clinical services to virtual care platforms.

Telehealth usage increased exponentially, remote patient monitoring in the home expanded and infrastructure capacity, capability and data access and security was tested.

Mobile data consumption skyrocketed as patient contact moved towards mobile and broadband platforms.

The ability for telecommunications providers to flex and be agile was also tested. Work from home in regional rural areas was problematic and end user experience in many instances was not always meeting a basic quality of service with many service/line drop-outs during telehealth consults.

5G was not ready and only available in a few select areas.

Suggested improvements

- Improve provider customer service support – long delays on customer service help lines were experienced and frustrating
- Charges were still incurred by remote workers even though broadband service capacity and capability was not acceptable – consider waiver certain costs/charges until services are restored or upgraded
- Remove all mobile black spots
- Ensure service offerings are simple to understand, common sense and deliverable
- Prioritise telco investments to ensure remote workers gain access to necessary bandwidth
- Ensure providers can respond quickly in a crisis

7. What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?

It may be possible to consider longer term investment and subsidisation in building capability for the regions and into the remote areas to provide wide ranging **high capacity** hubs (and outlying spokes). This would effectively create 'place-based digital hubs' which link and connect rural and remote communities (with high capacity digital infrastructure and a mobile service capability). These would be high capacity (Gigabits per second) centres.

Regional 'hub and spoke' models for high end digital capability could also be rolled out by using significant capability in the larger centres and towns to support the provision of smaller hubs and libraries and other co-located facilities in outlying areas.

'Hub and spoke' models would be centrally located in each region with the capability to expand out over time and generate outreach activities:

- tier one central location - regional city/large centres hosting supporting a range of applications and underpinning the key capability for the outlying spokes – tier 2 and 3 centres)
- tier two larger regional towns

- tier three – using town libraries as digital hubs or through private partnership models, for example, Bendigo Bank Community Branches.
- Through this model we could work with indigenous communities to identify locations that would access and connectivity for indigenous residents.

An example is the Smythesdale initiative recently launched by the Victorian Government and the Shire of Golden Plains. Launched as a co-working space the Golden Plains Digital Hub provides fast and reliable NBN internet and strong mobile phone coverage and offers a comfortable and contemporary alternative to working from home

8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?

Recent changes to the way we work with more remote working has facilitated ‘tree change’ with more employees working physically distant from their offices. The investment in infrastructure needs to continue to progress these work/lifestyle changes, ensuring a better standard of living as well as attracting the best candidates for roles without being limited by poor infrastructure.

A recent Regional Australia Institute (RAI) program identifies these possibilities and we see this occurring already within a regional context. The digitalisation of the economy is the next single biggest economic upheaval of this century. Access to connectivity and capacity to deliver against this opportunity is palpable, but it requires considerable connectivity strength.

Through the Loddon Campaspe Regional Digital Plan, we have already identified over \$700M in benefits as part of a strategic business case for investment into digital connectivity, skills pathways, industry demand, new ways of work and capacity (digital hubs) across the entire region.

9. What role could innovation, including new models, alternative investors or new ways of doing business, play to encourage investment in regional telecommunications infrastructure? What are the barriers?

Creative ways of working can (and are) being utilised to maximise the investment in existing technologies and provide a better customer experience.

Bendigo Community Telco has demonstrated this with their 100 Gig Bendigo network, providing a local network that would support the most data intensive industries.

A partnership model between multiple beneficiaries is possible however the monopolisation and industry fragmentation does not allow this to occur easily and mostly the economic benefits do not easily stack up for these providers.

New market entrants and other smaller RSPs are dwarfed by Telstra Optus and NBN Co. Therefore, the market is uncompetitive, underdeveloped and doesn’t allow for new entrants easily. They get swallowed up or wholesale changes to NBN result in an overbuild of infrastructure or inequities in pricing that put pressure on smaller players when working across the industry.

An example in our region is a small provider providing gigabit services to a nearby regional centre being priced out of the market post a BFZ announcement. While a good outcome for the community with cheaper prices and dedicated services, the investment and undertaking already made by others can be lost.

10. To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?

There is a range of new technologies likely to play a critical role from Low Orbit (LEO) satellite to millimetre wave technologies to some we haven't seen yet. However, in-the-ground glass or optic fibre backhaul with data centre edge capability within and across the regions is critical to ensure the system can work. This will also help address the digital divide.

11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?

Regional telecommunications infrastructure typically services smaller and more dispersed communities than in metropolitan areas. The distance covered is often larger and crosses landscape that can be significantly impacted by the addition of the equipment. This hampers rollout and investment due to higher proportional costs and lower return on investment rates.

The National Broadband initiative consolidated infrastructure under a single entity and facilitated multiple service providers to provide access to customers (RSPs) without duplication of costs and infrastructure.

Facilitating collaboration across service providers to access suitable infrastructure through cooperative agreements and to support access fast track funding has the potential to increase the deployment of improved telecommunications in regional areas, particularly for mobile technology.

A specific, tiered regional function could be established to ensure it meets a minimum threshold or provision.

Increasing incentives to service providers, though initiatives like the various rounds of Black Spot funding has improved the reach of networks. Continuing this funding and incentivising collaborative investment by multiple providers will continue to improve outcomes for regions.

Investigate the benefits of deploying Internet of Things (IoT) solutions and applications across this region to support Agriculture, the environment and communities. This could include

- Weather stations – to capture real time weather data and provide hyper local weather forecasts for local communities and farmers
- Fire monitoring stations – to monitor fire conditions, smoke and provide early warning.
- Subsidised IoT solutions for local farmers to support water usage, soil moisture weather, crop monitoring, farm security
- Use local providers and solutions where possible.

12. How can different levels of Government, the telecommunications industry and regional community's better co-ordinate their efforts to improve telecommunications in regional Australia?

More transparency about current service offerings including an explanation of those that are commercially viable and those that are not, combined with a better understanding of how to attract investment and possible co-investment models across all levels of government.

In order to improve regional knowledge and capacity to secure additional funding and investment, an improved 'tripartite' understanding of telecommunication responsibilities across all levels of government with clear and simple accountabilities. This would be an important first step in supporting the regional and rural communities to develop co-investment models, such as a new form of PPPs for regional areas. Longer term planning then could be determined to uplift "digital connectivity" within each region.

13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

Needs a greater level of cooperation and higher levels of investment now to secure a better future in a highly competitive digital global marketplace.

14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?

Some may not have many options to choose from depending on their location. There are a range of existing protections that people can access (it is more the connectivity reliability and gap that is the issue in regional communities (notwithstanding the need to regulate the sector).

15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?

It is totally insufficient in a regional context and not to a scale that is relevant to most communities. It is also inaccurate depending on the weather conditions and a range of other factors as stated earlier.

A more detailed understanding of:

- Blackspots and intermittent signal strengths
- Trunk infrastructure
- Different wholesale and retail fibre-in-the-ground alongside retail product lines to allow us to augment and leverage assets and not over build them
- Emergency response management requirements for telecommunications infrastructure.

16. What other matters should the Committee consider in its review and why are they important?

There is a need for significant, systemic, ongoing, higher-level investment in the telecommunications and digital economy to enable transformational change so rural and regional Australia is not left behind. While it may be a loss leader initially, it will deliver significant long terms benefits in terms of economic and social wellbeing.

Statement by Kirkland Lake Gold Ltd – operators of the Fosterville Gold Mine and Victoria’s largest gold producer, employing approximately 700 people (FTE) in our region.

Kirkland Lake Gold Ltd. is a senior gold producer operating in Canada and Australia that is targeting 1,300,000 – 1,400,000 ounces of production in 2021. The production profile of the Company is anchored by three high-quality operations, including the Macassa Mine and Detour Lake Mine, both located in Northern Ontario, and the Fosterville Mine located some 25kms from Bendigo in the state of Victoria, Australia. Kirkland Lake Gold’s solid base of quality assets is complemented by district scale exploration potential, supported by a strong financial position with extensive management expertise.

We genuinely believe that in Central Victoria everybody should have access to strong, reliable mobile coverage and have the modern tools with which to compete in the market place.

Our site at Axedale is significantly lacking in coverage for our operations and we are looking into investing private funding to support 4G coverage around the region both for our own business and philanthropic reasons.

We believe it is imperative from a mental health, business, road safety and bushfire mitigation perspective. In our own industry, mining and exploration, the surge towards “smart work” is only increasing and the connectivity this requires is only growing and more needs to be invested in to bring people up to minimum standards (we are running key infrastructure and mining business off no coverage of 3G where we need business grade networks to support our future growth).

Signed by



**CR DR JENNIFER ALDEN
MAYOR, CITY OF GREATER BENDIGO
On behalf of the Loddon Campaspe Group of Councils**