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A future working with both proprietary and open source.

Open source AND proprietary?

Benefits of combining proprietary with open source

Enterprise security

Enterprise support

Flexibility

Wider range of talent

SIA Coding Style Guide

Documentation

Standardised Headers

All headers in scripts must use the standardised format. Examples of populated headers are shown below.

R header

```
# ============================================================================================== #
# Description: produce plots that compare the K10 pscyhological distress
# measure to the SF-36 perceieved disability measure
#
# Input: [IDI_Sandpit].[DL-MAA2016-15].[k10_vs_mh_band]
#
# Output: comparison_plot = large gg that produces a density plot
# of those with need and those with little or no need
# by average SF36 MH score
#
# Author: E Walsh
#
# Dependencies: k10_sense_check.sas builds the input table that is queried
# this can be run through main_sofie.sas
#
# SQL query located in sql/k10_vs_sf36_mh_check.sql
#
# Notes:
#
# Issues:
#
# History (reverse order):
# 24 Feb 2017 EW v1
# ============================================================================================== #
```

https://nz-social-investment-agency.github.io/sia_analytical_processes/output/sia_coding_style_guide.html

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

New Zealand Tourism Forecasts 2017-2023

May 2017

new zealand.govt.nz

Forecast drivers and analysis by country

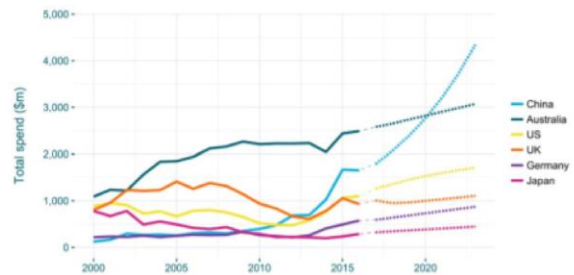
This section provides an overview of the drivers behind the forecasts for New Zealand's largest tourism markets, along with some smaller markets with strong growth potential. Detailed one-page summaries of the forecast numbers by country are available in Appendix A: Forecast summaries by country. Only countries that have a sufficiently large number of visitors have a forecast for tourism spend, due to the limitations of the International Visitor Survey as a data source[3].

Australia

	2016 result	2023 forecast
Visitor arrivals (000s)	1,412	1,759 (up 3.2% p.a.)
Visitor spend ($m)	2,487	3,073 (up 3.1% p.a.)

China is New Zealand's second largest tourism market in terms of both arrivals and spend. This market is expected to grow strongly during the forecast period overpassing Australia as the largest contributor in spend. Major events such as Australia-China Year of Tourism 2017 and New Zealand-China Year of Tourism 2019, policy changes extending the duration of multiple-entry visitor's visas to five years, and an increase in airline seat capacity are all expected to support this strong growth.

Figure 2: Australia is currently our largest market by spend, but China is projected to overtake it in the near future

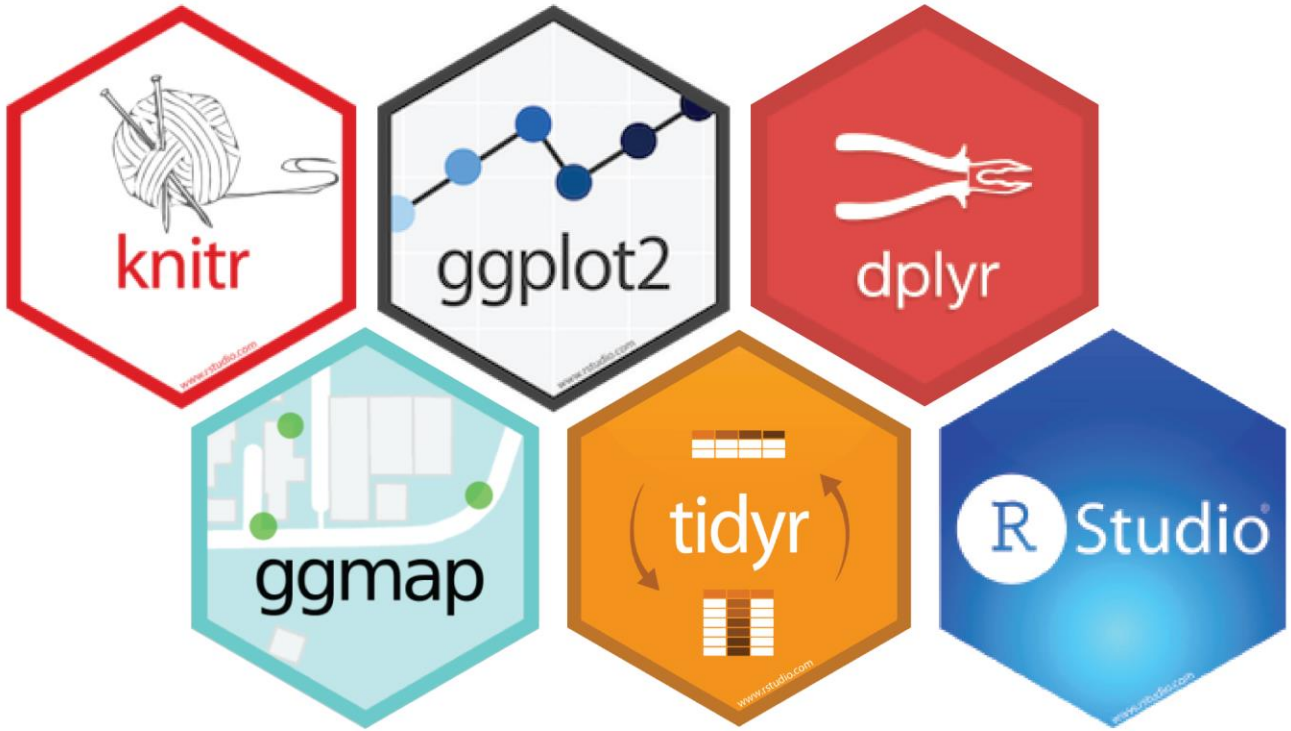


Source: MBIE

Figure 9: Most of New Zealand's non-stop flight routes show an increase in capacity in 2017

http://www.mbie.govt.nz/info-services/sectors-industries/tourism/tourism-research-data/international-tourism-forecasts/documents-image-library/forecasts-2017-report-final.pdf

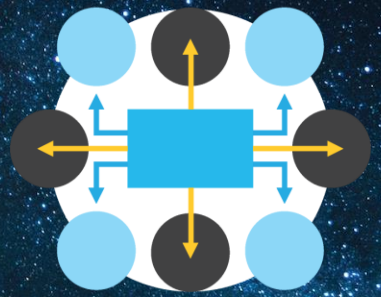
Automated pipeline reporting



Options for using Python and R with SAS

SAS Studio

(Proc iml)



SAS Enterprise Miner

(Open Source Integration)

SAS Viya

(Swat)

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