

36th America's Cup:  
High Level Economic Assessment Evaluation  
(Amended)

18 December 2017

m.e  
consulting



**Prepared for**

Ministry of Business, Innovation and Employment

Document reference: MBIE 015.17 AC36 Economic Evaluation Draft Report

Date of this version: 18/12/2017

Report author(s): Greg Akehurst

DDI: 09 915 5511

Lawrence McIlrath

DDI: 09 915 5523

## Disclaimer

This Report has been prepared by Market Economics Limited for the Ministry for Business, Innovation and Employee (MBIE) solely for the purposes stated herein. The Report should therefore not be relied upon for any other purpose. Although every effort has been made to ensure the accuracy and reliability of the information contained in this report, neither Market Economics Limited, nor any of its employees shall be held liable for the information, opinions and projections expressed in this Report. The analysis presented in the report is based on, and informed by, various data sources.

To the fullest extent permitted by law, M.E accepts no duty of care to any third party in connection with the providing this Report.

Accordingly, regardless of the form of action, whether in contract, tort (including without limitation, negligence) or otherwise, and to the extent permitted by applicable law, M.E accepts no liability of any kind to any third party and disclaims all responsibility for the consequences of any third party acting or refraining to act in reliance on the Report.

Important:

- This document contains assertions that constitute forward looking statements. Those statements appear in several places in this document and include statements regarding the intent, belief or current expectations of industry stakeholders, role players and businesses.
- Readers and users of this document are cautioned that any such forward looking statements are not guarantees of future performance or growth trends, and involve risks and uncertainties. Actual results may differ materially from those projected forward-looking statements because of various factors. In formulating the assessment, many assumptions were used. There can be no assurance that these assumptions are accurate or that the assumptions can be realised.



# Contents

EXECUTIVE SUMMARY.....	VI
<b>1 INTRODUCTION.....</b>	<b>1</b>
1.1 THE 31 <sup>ST</sup> AMERICA’S CUP - 2003.....	1
1.2 36 <sup>TH</sup> AMERICA’S CUP.....	1
1.3 MBIE REQUIREMENTS.....	2
<b>2 PROJECT APPROACH.....</b>	<b>4</b>
2.1 ASSESSMENT FRAMEWORK.....	4
2.2 AC36 EXPENDITURE MODEL.....	5
2.3 ECONOMIC IMPACT ASSESSMENTS.....	9
2.4 C.B.A. INFORMATION AND DATA.....	12
<b>3 ECONOMIC IMPACT ASSESSMENT (EIA).....</b>	<b>13</b>
3.1 INTRODUCTION.....	13
3.2 DIRECT AND INDIRECT IMPACTS.....	14
3.3 TOTAL ECONOMIC IMPACTS.....	17
3.4 KEY DRIVERS.....	19
3.5 IMPACT BY SECTORS.....	19
<b>4 COMPUTABLE GENERAL EQUILIBRIUM (CGE).....</b>	<b>21</b>
4.1 INTRODUCTION.....	21
4.2 CGE MODEL RESULTS.....	23
<b>5 COSTS VERSUS BENEFITS.....</b>	<b>25</b>
5.1 INTRODUCTION.....	25
5.2 FINDINGS.....	25
5.3 OTHER CONSIDERATIONS.....	29
<b>6 MAORI ECONOMY.....</b>	<b>31</b>
<b>7 CONCLUSIONS.....</b>	<b>33</b>



# Figures

FIGURE 2.1: APPROACH.....	4
FIGURE 2.2: FRAMEWORK .....	4
FIGURE 2.3: MAJOR EXPENDITURE ASSUMPTIONS, LOW, MEDIUM, HIGH FOR AC36, 2021 .....	6
FIGURE 3.1: DIRECT AND INDIRECT EFFECTS OF LOW EXPENDITURE AC36 SCENARIO, 2018 - 2021 .....	15
FIGURE 3.2: DIRECT AND INDIRECT EFFECTS OF THE MEDIUM EXPENDITURE AC36 SCENARIO, 2018 - 2021 .....	16
FIGURE 3.3: DIRECT AND INDIRECT EFFECTS OF THE HIGH EXPENDITURE AC36 SCENARIO, 2018 - 2021.....	17
FIGURE 3.4: TOTAL ECONOMIC IMPACTS OF THE LOW EXPENDITURE AC36 SCENARIO, 2018 - 2021.....	17
FIGURE 3.5: TOTAL ECONOMIC IMPACTS OF THE MEDIUM EXPENDITURE AC36 SCENARIO, 2018 - 2021 .....	18
FIGURE 3.6: TOTAL ECONOMIC IMPACTS OF THE HIGH EXPENDITURE AC36 SCENARIO, 2018 - 2021 .....	18
FIGURE 3.7: ADDITIONAL DIRECT AC36 SPEND ADDED TO AUCKLAND ECONOMY, 2021 (\$000) .....	19
FIGURE 4.1: ADDITIONAL ANNUAL SUPER YACHTS DUE TO INFRASTRUCTURE EXTENSION, 2025 - 2030 .....	23
FIGURE 4.3: AVERAGE ANNUAL REAL GDP AND EMPLOYMENT EFFECTS FROM NEW WHARF INVESTMENT, 2025 - 2055.....	23
FIGURE 5.1: NET ANNUAL POSITION (BENEFITS LESS COST).....	26
FIGURE 5.2: CUMULATIVE POSITION .....	27
FIGURE 6.1: EMPLOYMENT BY ETHNICITY, AUCKLAND REGION 2013.....	31
FIGURE 6.2: DISTRIBUTION OF EMPLOYMENT IMPACTS - LOW, MEDIUM AND HIGH AC36 SCENARIOS, AUCKLAND REGION .....	32
FIGURE 6.3: COMPARISON OF AC36 EMPLOYMENT EFFECT WITH MAORI EMPLOYMENT SHARES. ....	32
FIGURE 7.1: INTERNATIONAL VISITOR SURVEY AMERICA’S CUP BY REASON FOR VISIT AND SPEND, 2003. ....	36

# Appendices

APPENDIX 1: ASSUMPTIONS .....	34
APPENDIX 2: DIRECT SPEND TOTALS – BY SPEND SECTOR .....	41
APPENDIX 3: TOTAL ECONOMIC IMPACT BY KEY SECTORS .....	42
APPENDIX 4: BREAKDOWN OF COSTS AND BENEFITS .....	45



# Executive Summary

In winning the America's Cup in Bermuda, Emirates Team New Zealand (ETNZ) have set in train a process that will culminate in a series of regattas that ultimately lead to the defence of the Cup in 2021 in Auckland. Prior to that occurring and in anticipation of significant visitation and global interest, a sizeable investment will need to be made in; facilities, planning, organisations, and associated events to ensure that Auckland and New Zealand maximise the opportunities presented by the Cup defence. The America' Cup regatta is a major international event and the previous events delivered significant positive economic impacts.

The 36<sup>th</sup> AC regatta is timed to begin in January 2021 and anticipated to follow a similar tourism influx and economic increase as seen at previous events. In the lead-up to the event, the syndicates are likely to be based in New Zealand developing their boats and training in race conditions. This means that AC36 will start to generate economic impacts before the event. Furthermore, the event acts as a catalyst for several sectors within the economy and for Auckland itself. The long-term effects of infrastructure investment that is required to host the event, will ensure that the Auckland Super Yacht Refit and Charter sector is able to grow significantly. However, these economic impacts and benefits are not 'free' – costs are incurred to unlock and deliver the effects.

To make informed decisions about infrastructure investment and a range of other aspects associated with the event, central and local government require a baseline of information. The Market Economics Limited (M.E) team was commissioned to provide the baseline assessment covering:

- An economic impact assessment,
- A high-level cost and benefit assessment.

A scenario approach was used to define AC36's potential direct effect on Auckland and NZ. The scenarios show three alternative growth futures.

## Key assumptions

An important first step was to estimate the size of the event in terms of number of syndicates, visitor numbers, super yachts and media and so forth and to then translate this into 'new' (additional) spending to Auckland and New Zealand. An estimated spending profile was developed using information collected during the 2003 event and this was supplemented by way of industry interviews. There is however uncertainty about the resulting spending profiles, so we recommend that the reader focus on the range of potential outcomes instead of focusing on one, single value. A detailed account of the assumptions is presented in the report. The following table lists the core assumptions.

In addition, a range of other assumptions control aspects such as government expenditure, the share of sponsor spend that would otherwise be spent locally (50%), how much of syndicates budgets can be spent with the local marine industry, and timings of syndicate arrivals and duration of time spent in Auckland.

We note that our assessment did not consider a situation where the event does not take place in NZ. The economic impacts and the cost/benefit relationships will be markedly different. Assessing such an alternative was beyond our scope of work.

### Core Assumptions

Category	Low	Medium	High
Base Number of Super Yachts	60	60	60
Super Yachts – TOTAL (Includes Super Yachts attracted by the event)	100	120	159
Other Boats	6	8	9
Domestic Visitors	150,000	162,000	175,000
International Visitors	21,497	23,886	26,275
Central Government (\$m)	\$50.0	\$100.0	\$100.0
Local Government (\$m)	\$50.0	\$100.0	\$100.0
Syndicate Members and Friends – visitor days	232,730	310,300	387,900
Sponsors (\$m)	8	11	14
Media – scale compared to 2003	0.9	1	1.1
Regatta Organisers – spend tied to syndicate no.	6	8	10
Challenging Syndicates – in addition to TNZ	6	8	10
Team NZ Budget (\$m)	\$80	\$100	\$120

### Key Findings

The findings are presented in two parts. Firstly, the estimated economic impacts are presented and secondly, the cost and benefit relationships are discussed.

#### Economic Impact Assessment (EIA)

The economic impacts assessment used two methods to estimate the GDP and employment effects. We used a Multi-Regional Input-Output model as well as a Computable General Equilibrium (CGE) model. The MRIO modelling presents the short term economic impacts associated with the event and the CGE relates to the long-term impacts (e.g. the enabled impacts associated with the new infrastructure and changes in the super yacht industry). For both approaches, low, medium and high scenarios were assessed. The following table summarises the MRIO results. The figures are the sum across four years (i.e. 2018-2021).

Total Effect*	Value Added	Employment
Low	\$555m	4,743
Medium	\$763m	6,433
High	\$977m	8,272

\* - Direct, indirect and induced, the sum over your years and across NZ

The CGE modelling returns lower economic impacts. This pattern, with the MRIO results being greater (larger) than the CGE results is consistent with other studies<sup>1</sup> results and is a function of the modelling approaches. The CGE model reflects constraints in the economy, changes prices, employment, the structure of the economy and how it responds to economic shock (in this case the event and the money flowing into the economy). The CGE modelling reports Real GDP, Employment and real changes in tax revenue collected by Government.

<sup>1</sup> Where IO and CGE models are used.



The analysis suggests that investing in the infrastructure will enable Auckland to respond to growth opportunities in the marine sector (over the long term. The associated GDP effects are estimated at \$123m annually when fully developed (i.e. operating at capacity), rising from between \$29m and \$39m<sup>2</sup> in 2025 (nationally).

The additional employment<sup>3</sup> identified is an equivalent measure rather than a ‘new jobs’ measure, as a portion of the extra may be made up from over-time or improved working practices. In real terms, New Zealand’s employment will increase by 182 and 241 in 2025 to 595 when operating at capacity. The tax increase is estimated at between \$9m and \$11m in 2025 before growing to around \$31m (additional).

### **Key drivers**

Direct spend data for each spend group under the three modelled scenarios indicates that the biggest over all driver of impact is generated by the change in Super Yacht numbers. Moving from 100 to 159 super yachts in total adds over \$175m in net additional direct spend to the Auckland economy.

The second biggest driver is the number of syndicates. The difference between 6 and 10 syndicates challenging adds almost \$62m in direct spend to the Auckland economy. The key drivers are summarised in the following table.

	Low to Med (\$000)	Low to High (\$000)
<b>SY Spend</b>	\$59,300	\$175,000
<b>Other Boats</b>	\$3,600	\$5,500
<b>Domestic Visitors</b>	\$1,600	\$3,400
<b>International Visitors</b>	\$2,900	\$5,800
<b>Central Government</b>	\$50,100	\$50,100
<b>Syndicate Members</b>	\$13,500	\$26,900
<b>Sponsors</b>	\$7,100	\$14,300
<b>Media</b>	\$3,300	\$6,500
<b>Regatta Organisers</b>	\$8,000	\$16,000
<b>Syndicates</b>	\$30,900	\$61,800
<b>Team New Zealand</b>	\$20,000	\$40,000
<b>TOTAL</b>	<b>\$200,300</b>	<b>\$405,300</b>

### **Costs versus Benefits**

In addition to considering the economic impacts, it is possible to assess the event from a different perspective, such as a cost-benefit analysis (CBA). A CBA looks at the relativity of the costs and benefits. Instead of presenting the results as a single value, a range is presented to reflect the uncertainty surrounding the capital costs, the magnitude of benefits, when these materialise and the time value of money<sup>4</sup>. It is very important to note that the long(er) term effects associated with the marine industry are not reflected in this CBA. Including the long-term effects will increase the benefits (and improve the cost-benefit ratio).

<sup>2</sup> The scenarios used in this analysis have the same end point, but different growth profiles i.e. the pathway of the growth differs. This is way a range is presented for the early years and not the end years.

<sup>3</sup> Specifically, Modified Employee Counts (to include working proprietors as well as employees).

<sup>4</sup> As reflected using different discount rates.



Like the EIAs, the CBA concentrate on the 'new' and additional spending associated with the event. The CBA relies on the same assumptions as the economic impact assessment with an important difference being the source of funding. For the CBA, we assume that the funds are raised by way of tax<sup>5</sup> (and rates). If the funds are transferred away from existing activities, to fund the investment, then the CBA would need to reflect any benefits that are 'lost' due to some activities not being funded<sup>6</sup>. Importantly, by assuming the funds are raised using a tax (and rates), a deadweight cost is introduced<sup>7</sup>.

At a New Zealand wide level and discounted, the benefits outweigh the costs. During construction, the costs are greater than the benefits. However, the trend reverses when the capital expenditure comes to an end. By 2020, the benefits associated with the new spending (e.g. syndicates), are greater than the costs.

**The CBR across the three scenarios (low, medium and high) and using different discount rates<sup>8</sup> comes in at 1.0, 1.10 and 1.14 (for the medium, high and low scenarios). When the figure is greater than one (1), then the benefits outweigh the costs. For the medium scenario, the ratio is marginally below 1 (0.997). The net benefit is estimated at between -\$2.0m and \$76.0m.** The range reflects the scenarios and the different discount rates. The maximum net position relates to the high scenario (i.e. the largest event with the most syndicates, visitors and super yacht activity). The smallest net benefit relates to the medium scenario (due to the relatively high capital cost).

At this stage of the AC36 process, there are several unknowns. The sensitivity analysis suggests that under high costs (capital expenditure *plus* 20%) and low benefit (less 20%) scenarios, the low and high scenarios' CBR fall slightly below 1. The medium scenario's stays in the 0.9-1.0 range but falls to 0.89 under the high cost and low benefit settings. This suggests that the positive outcomes are not guaranteed and that there are risks.

### Other considerations

The CBA assessment focused on the effects that are directly associated with hosting the event and it focused on the short term. There are other aspects and economic considerations that are not included in this assessment, such as:

- The use of the harbour and developing permanent (or semi-permanent) infrastructure: Adding new infrastructure and building into the harbour will have other effects ranging from adding new infrastructure, adding to the economic activity that is undertaken at the Viaduct/Wynyard quarter. However, some community segments might not view the additional investment favourably. There are intangible values associated with the harbour including eco-systems service values, cultural values, option values and so forth<sup>9</sup> and assigning a value to these considerations is difficult to do because people and communities have differing value sets. Nevertheless, these views are important and will need to be included in a wider assessment.

---

<sup>5</sup> The EIAs assumed that the funds that are used are from reallocating existing budgets.

<sup>6</sup> We do not know which areas/activities will lose funding, so it is not possible to identify the foregone benefits.

<sup>7</sup> We have included a deadweight cost as outlined by NZ Treasury.

<sup>8</sup> We used 4%, 6% and 8% discount rates.

<sup>9</sup> These aspects are normally assessed in close consultation with affected and interested parties, but the timeframes of this assessment did not allow for these aspects to be considered. Such an assessment will need to be informed and guided by the final design.

- The CBA focuses on the short term, specifically the pre-event and the event. It does not consider the long-term effects reaching beyond the event. Examples of these effects include long term economic shifts and the medium to effects on Auckland and NZ's marine industry due to the global exposure during the event and lifting Auckland's profile on the international stage.
- Externalities associated with the construction phase such as pollution, noise, traffic congestion, road closures etc. are not included in the assessment. Including such effects normally lowers the net benefit position.

In addition, the America's Cup will also deliver other benefits to Auckland and NZ<sup>10</sup> that are difficult to firstly quantify and secondly express in monetary units. Examples of such benefits are listed below:

- Strengthening and lifting Auckland and NZ's profile as a host city and nation supporting future efforts to attract and host global scale events.
- Substantial international media exposure.
- Increasing the growth and local participation in sailing and water sports.
- International research suggests that sporting achievements in general elicit feelings of pride.<sup>11</sup>

## Conclusions

The America's Cup is an iconic event in New Zealand's sporting history. Successive governments have seen the benefits that flow from investing in both the event itself (when held in New Zealand) and from investing in Team New Zealand (then Emirate Team New Zealand) – even when the event is not going to be held in New Zealand. The flow on effects for New Zealand's marine industry and 'Brand New Zealand' are significant.

The assessment considered the potential economic impacts of hosting the event on the Auckland and New Zealand economies using different tools. As with all economic models and tools, there are limitations and caveats. Nevertheless, the analysis suggests that hosting the event is likely to result in positive economic impacts over the short and long term and these impacts will be significant. This increase reflects a permanent, step change in the size of the economy and is driven by an increase in the super yacht market (and receiving export receipts).

It is necessary to view these impacts in the wider context of the infrastructure costs and the additional costs to businesses to deliver the goods and services. The assessment of cost and benefits, and the relationships between them suggests that even over the **short term** (2018-2021) the anticipated benefits will outweigh the costs. In other words, if government were making an investment decision simply based on the activity generated to the end of the America's Cup regatta's, **the benefits outweigh the costs.**

Further, the sensitivity analysis revealed that even combining high construction costs (high costs plus 20%) and low benefits (low scenario reduced by 20%), the AC36 will fall slightly below one suggesting that the positive outcomes are not guaranteed. Using a different measure<sup>12</sup> suggests that for every \$1 invested, between \$1.25 and \$1.89 of benefit will accrue to the economy.

---

<sup>10</sup> Assuming that the event is hosted in Auckland.

<sup>11</sup> Mulier Institute and Utrecht University. Creating social impact with sport. Report prepared for the Ministry of Health, Welfare and Sport. July 2016.

<sup>12</sup> This measure shows the net benefit over time relative to the total capital costs (so it is not a CBR). It shows overall gain in the economy (over time) associated with the initial investment. A CBR considers all the costs (and not just the net gain).



By taking a longer view, that is by including the activity generated by additional super yacht visits to 2055, the economic gains outweigh the costs. Our modelling suggests that over the long term (out to 2055) every \$1 invested in the infrastructure generates approximately \$7.50 of economic activity<sup>13</sup>.

---

<sup>13</sup> In NPV terms. Note, this is not benefits.



# 1 Introduction

## 1.1 The 31<sup>st</sup> America's Cup - 2003.

In winning the America's Cup in Bermuda, Emirates Team New Zealand (ETNZ) have set in train a process that will culminate in a series of regattas that ultimately lead to the defence of the Cup in 2021 in Auckland. Prior to that occurring and in anticipation of significant visitation and global interest, a sizeable investment will need to be made in; facilities, planning, organisations, and associated events to ensure that Auckland and New Zealand maximise the opportunities presented by the Cup defence.

Team New Zealand previously hosted the 2003 America's Cup regatta in Auckland which was deemed a major international event. Like the 1999-2000 series – which culminated in the first successful defence of the Cup outside the USA – the 2003 Defence and the lead-up Louis Vuitton Cup for challengers generated intense national and international interest.

When the first starting gun for the Louis Vuitton Cup (LVC) sounded in mid-October of 2003, the America's Cup 'sector' was a well-established part of the Auckland scene. Several challenger syndicates had set up base in Auckland during the summer of 2000-01 and, abeam of Team NZ, tested and practised constantly in the Hauraki Gulf. With their bases, along 'Syndicate Row' in the Viaduct Harbour, challenger teams established communities of crew, families and supporters – in hotels, houses and apartments across Auckland. The challenger presence increased in the following summer, and there were seven challenger syndicates here from spring of 2001 and into autumn of 2002. Most headed back to the northern hemisphere in April and May for final preparations, returning to Auckland in July and August for the event proper. With the arrival of Stars and Stripes in late August, the challenger list was complete – nine challengers, more than 900 sailing and shore crew, and around 1,020 family members and friends – with substantial presence also of event organisers<sup>14</sup>, officials, and media.

## 1.2 36<sup>th</sup> America's Cup

The 36<sup>th</sup> AC regatta is timed to begin in January 2021 and anticipated to follow a similar tourism influx and economic increase as seen by previous hosted years. Prior to this, Emirates Team New Zealand (ETNZ) and the other syndicates are likely to be based in New Zealand developing their boats and training in race conditions. In doing so they generate an economic footprint on the New Zealand economy. This stretches from the retail, accommodation and hospitality sectors across the economy to manufacturing, transportation and the marine sector (marina's, boat builders, marine servicing and supplies). During the regatta, tourism sectors get a boost as visitors are attracted to Auckland from around the world (as well as from around New Zealand). The net effect of these activities drives net additional economic activity, GDP, sustains employment and lift household incomes.

---

<sup>14</sup> Challengers of Record Management, servicing the challengers.



Furthermore, the event acts as a catalyst for several sectors within the economy and for Auckland itself. The long-term effects of infrastructure investment that is required to host the event, will ensure that the Auckland Super Yacht Refit and Charter sector is able to grow significantly.

In addition to the tangible economic effects, mega events like the America's Cup regattas are important to New Zealanders. They help define us and provide us with a sense of pride and place within the world. While these social effects sit outside the economic assessment discussed below, they are important aspects that should help inform the investment decision.

For the purposes of this study it is important that event is defined accurately. This means that there is a defined beginning from which spending is captured until the end of the final race for the America's Cup and the syndicates leave. The event begins with the syndicates arriving into Auckland from 2019. Note that if there are other associated sailing regattas or pre-America's Cup regattas that are held in Auckland, they are excluded from this assessment. Similarly, if ETNZ heads off shore to compete in other regattas building boats that may be specific to those events, it falls outside this assessment.

This assessment focuses on spending in Auckland and the rest of New Zealand from 2019 – 2021. It encompasses the Prada Cup regattas and The Match for the America's Cup.

Finally, when undertaking any economic impact assessment (EIA) or cost benefit analysis (CBA), it is crucial to remember that economic benefits are not 'free' – costs are incurred to unlock and deliver the effects. How, and by whom a project is funded are critical considerations that have a material effect on the scale of economic impact. For example, if the funds are borrowed (debt), then part of the proceeds are used to repay that debt together with the financing costs. The financing costs adds another layer of costs. Similarly, if general taxation is used, then a deadweight cost is added. Conversely, if the funds are attracted from offshore (direct investment) then the investment unlocks the benefits without additional costs being incurred.

## 1.3 MBIE Requirements

In order to make informed decisions about infrastructure investment and a range of other aspects associated with the event, central and local government require a baseline of information for all agencies to reference when talking about the 36<sup>th</sup> America's Cup.

Specifically, the report seeks to address the following MBIE requirements;

To provide an overview of the potential costs and benefits to New Zealand from hosting the 36th America's Cup (including high, medium and low scenarios):

1. High-level evaluation and forecast of direct and indirect economic benefit, including:
  - i. Visitor forecasts,
  - ii. High-level estimate of the net economic impact,
  - iii. Regional and sectoral spread of benefits,
  - iv. Estimated expenditure by teams based in New Zealand, including sponsors and international media,
  - v. Estimated visitor spending (including super yachts and refits),
  - vi. Increase in employment,

- 
- vii. Other matters relevant to determining potential economic benefits.
  2. High level evaluation of the economic costs of holding the event.
  3. Any potential legacy benefits (e.g. marine or tourism sectors).
  4. Potential value of brand New Zealand exposure.

Armed with this base information, central and local government will be in a stronger position to make decisions on funding infrastructure to support the event.

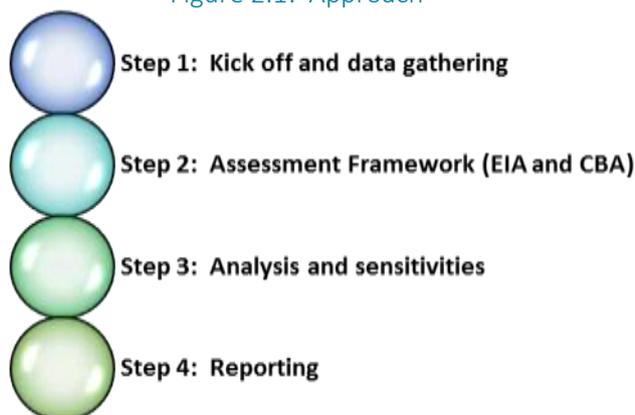
## 2 Project Approach

To prepare the evaluation, M.E have followed a staged approach as summarised in Figure 2.1, below. The approach comprised of three main modelling activities that drew on an overarching expenditure model developed to mimic the event playing out over four years from 2018 through to 2021. Our approach and modelling are consistent with Treasury’s guidelines on social CBA and the requirements of Treasury’s Better Business Case (BBC) guidelines which is likely to come into play at a later stage.

In the balance of this section, an explanation of Assessment Framework and the key components of the Assessment Framework are summarised.

The combination of the different key models provides a robust understanding of potential economic outcomes: costs, benefit and economic impacts.

Figure 2.1: Approach



### 2.1 Assessment Framework

The purpose of the assessment framework is to bring together outputs from the EIA and CGE modelling along with the direct investment information and infrastructure spend, to answer questions about the economic impacts and the costs and benefits. Essentially, the framework will consist of different models.

Figure 2.2: Framework

Framework	Focus	Tool	Dimension covered	Reports
<b>Framework parts</b> Consider trade-offs, opportunity costs	Economic Impact Assessment	Auckland Multi-Regional Input Output Model (MRIO)	Sectoral distribution of effects GDP or Value Added (VA) <sup>15</sup> effects (direct, indirect and induced) Short run impacts	Net position (impact) on the economy
		Auckland-NZ Computable General Equilibrium Model	Long run impacts (GDP) Crowding out impacts due to e.g. price changes and substitution	
	Cost-Benefit Analysis	Bespoke Cost-Benefit Model	Relationship between costs and benefits Benefits per \$1:00 invested	

This framework organises the evidence base to inform decision makers and has the following attributes:

- It uses different tools to assess the economic effects (or impacts) so, in effect, it looks at the problem using different lenses. It uses M.E’s Auckland Multi-Regional Input Output Model (MRIO) as well as an M.E’s Auckland-National CGE model. This produces short and long run effects, the

<sup>15</sup> GDP and Value Added are broadly similar with some technical differences (e.g. how tax on products are treated).



sectoral distribution of effects as well as any crowding out (due to capacity constraints) of economic activity across the economy.

- The framework compares market costs and benefits in one, consistent framework. This is a key strength of the CBA framework and an area that EIAs are not suited for.

As mentioned, the framework aligns with Treasury's guidelines on CBAs as well as the Business Cases. The CBA is informed by information and economic structures embedded in the EIA models to ensure consistency between the modelling tools. For example, the information in the IO tables is used to estimate producer surplus, used in the CBA. Consistency of information is important to ensure outputs are comparable.

Note that not all the costs and benefits are 'direct', there are benefits that are 'less tangible', such as consumer surplus, willingness to pay and option values. We have identified some of these aspects without attempting to quantify them at this stage.

Discounted Cash Flow (DCF) analysis<sup>16</sup> has been used in the assessment framework – this is done to express future costs and benefits in today's (current) terms and to be able to place them alongside historical or near-term expenditures.

The EIA and CBA tools are complementary and can be used together as they look at the issue from different angles. The EIAs (IO and CGE) assess the overall size of the economic impact on the formal economy (i.e. how the money flows through the economy) whereas the CBA is more concerned about the relativity between the costs and the associated benefits. It is not a case of one tool being 'better' than the other. They provide different insights. In fact, they are often used together to provide a rich(er) understanding of the topic that is being assessed.

## 2.2 AC36 Expenditure Model

To assess the costs, benefits or economic impacts it is first necessary to develop an expenditure profile of the event. Given very little is currently known about the size, nature, or composition of the event, it is not possible to know what is likely to be spent by whom to host, compete, watch or broadcast the event. Therefore, several assumptions were used. The assumptions were informed by, or modelled, as follows:

- The structure of the event, in terms of who the main expenditure groups are, has been assumed based primarily on the last event hosted in Auckland in 2003.
- Detailed survey and other expenditure information for each expenditure group from 2003 has been factored up to 2017 using the producers price index. The expenditure groups are:
  - The syndicates,
  - Syndicate family members and friends,
  - Super yachts,
  - Other visiting boats,
  - International visitors,
  - Domestic visitors,
  - Syndicate sponsors,

---

<sup>16</sup>That is the Net Present Value (NPV) component.

- Regatta organisers,
  - Media,
  - Central and local government, and
  - Emirates Team New Zealand.
- Total 2017 denominated spend is then divided across the key drivers for each category of spend. For example, syndicate family spend from 2003 is scaled up to 2017 then divided by the number of syndicate family days spent in Auckland during the 2003 event.
  - These expenditure ratios are then applied to projections of activity for the 2021 event (in the above example, syndicate family spend ratios have been applied to the estimated number of family days to be spent in Auckland between 2018 and 2021). This is driven by estimates of the number and scale of syndicates competing for the Cup and their size.
  - For each expenditure category, a low, medium and high scenario has been established to allow the projections to capture a wide range of potential outcomes and to provide decision makers with an ability to assess the implications of changes to key metrics.

## 2.2.1 Assumptions

The assumptions have been made out of necessity in order to build up the expenditure model. The key ones are presented in Figure 2.3 while Appendix 1 provides more detail, including the degree to which each spending group influences the final outcome. This provides insights into which broad category can change and how that change might influence the outcome. A range of other assumptions control aspects such as the nature of government expenditure, the share of sponsor spend that would otherwise be spent locally (50%), how much of syndicates budgets can be spent within the local marine industry, and the timings of syndicate arrivals and duration of time spent in Auckland.

Figure 2.3: Major Expenditure Assumptions, Low, Medium, High for AC36, 2021

Category	Low	Medium	High
Base Number of Super Yachts	60	60	60
Super Yachts – TOTAL (Includes Super Yachts attracted by the event)	100	120	159
Other Boats	6	8	9
Domestic Visitors	150,000	162,000	175,000
International Visitors	21,497	23,886	26,275
Central Government (\$m)	\$50.0	\$100.0	\$100.0
Local Government (\$m)	\$50.0	\$100.0	\$100.0
Syndicate Members and Friends – visitor days	232,730	310,300	387,900
Sponsors (\$m)	8	11	14
Media – scale compared to 2003	0.9	1	1.1
Regatta Organisers – spend tied to syndicate no.	6	8	10
Challenging Syndicates – in addition to TNZ	6	8	10
ETNZ (\$m)	\$80	\$100	\$120



In general, this assessment draws heavily on the 2003 study and its associated surveys and analysis. For the majority of spend categories, data derived from 2003 on a per head or per syndicate or per visitor night basis has been applied to the 2021 event (once they have been factored up to account for inflation). All the assumptions are held in a scenario framework making it easy to alter them and to track the resulting impacts on the modelled outcomes.

### ***Explanation of Key Assumptions***

Base Number of Super Yachts: Currently there are between 50 and 60 super yachts that visit New Zealand waters annually. In order to understand the effect of hosting the America's Cup, in terms of its ability to attract super yachts, it is important that base visitation is identified and removed from the estimates. For each scenario, this has been held at 60 yachts

Super Yachts Total: The event will attract super yachts during the regatta's. They are likely to time their being in New Zealand waters with either regular maintenance or more significant refit work. It is important to note that for the purposes of this report, only the net position has been modelled. That is the difference between the total and the baseline figure. This differs from the 2003 study, when New Zealand didn't have a history of visiting super yachts. For that study, the total number of yachts that visited was considered driven by the America's Cup Regattas.

Other boats: In the 2003 Defence, a number of other boats were present in Auckland that didn't fit the super yacht typology, yet contributed significantly to the economy. They included the Amerigo Vespucci, an Italian Naval training vessel, that was based in Auckland for almost 6 months – along with guests, cadets and so on. In addition, Telecom (at the time) kept a 'cable boat' on standby throughout the entire series of regattas. This was simply to address any issues that might arise from the Southern Cross Cable that is laid underneath the America's Cup course. Finally, there were four cruise ships that stayed extra days in Auckland simply to view the racing. The vessel, "The World" stayed for the entire regatta. In total, 17 additional ship days were attributable to the Americas Cup in 2003. The 2003 volume has been treated as the 'Low' in this assessment.

Domestic Visitors: In 2003, approximately 162,000 domestic overnight visitors stayed in Auckland who, when surveyed stated that the presence of the America's Cup was either the sole reason, the main reason or one of the reasons they were in Auckland. The strength of pull they felt from the Cup determined the proportion of their spend attributed to its presence. The spend ratios have been held constant (albeit in \$2017 terms) for this assessment. Note that the Medium scenario is the same as the 2003 figure.

International Visitors: In 2003, almost 23,900 international visitors came to Auckland stating that the presence of the America's Cup was the sole reason (2,300), the main reason (3,700), or one of the reasons (17,900) they came. The 2003 spend structures have been held constant (in \$2017) applied to the 2021 low medium and high projections. Note that the 2003 estimate is represented as the medium scenario for this assessment. The overall scale of the attraction is relatively small when put in the context of NZ's overall tourism market – Statistics NZ estimate that during 2016 around 3.5m visitors arrived in NZ – 23,900 is less than 1 per cent of overall visits. This implies that the event is unlikely to have a material crowding out effect on overall visitor numbers.

Central and Local Government: Governments spend money to both facilitate the America's Cup event and to leverage off the event. In previous iterations of the America's Cup, central government has been a contributor to Team New Zealand. However, for the 2017 campaign, they did not contribute and for the



purposes of this report, we have assumed that they are unlikely to contribute to the 2021 campaign. However, to facilitate the event, water edge space is needed for the syndicate bases and to berth the likely significant increase in super yacht numbers. The option that will likely deliver the highest returns to New Zealand and to Auckland, is to build appropriate infrastructure<sup>17</sup> of some sort. This would have the ability to in the first place accommodate all syndicate bases, providing them with calm water space on the eastern side of the extension, while on the western side provide a significant area of super yacht berthing space. The costs to do this are large. Initial estimates put it at approximately \$200m shared equally between central and local government.

In addition to this, we have assumed that the same level of spending (factored up to \$2017) occurs for all surrounding activities – promotions, flights hosting and so on.

Syndicate Members Friends and Family: The assumption here is the number of days friends and family spend in New Zealand. These figures are based on the averages per syndicate established during the 2003 regatta, applied to the length of time the syndicates are expected to be in Auckland for the 2021 event. We have assumed that the same proportion of small medium sized and large syndicates will be present in Auckland as were here in 2003, and the numbers of friends and family are tied directly to these estimates.

Sponsors: The majority of sponsor spend that occurred in Auckland in 2003 was from Team New Zealand sponsors. This category captures all the money spent outside of the team sponsorship. The major sponsors in 2003 flew people to Auckland hosted large gala events, chartered boats to watch the racing, established permanent staff for the duration of the regattas and a wide range of other activities. We have assumed that half of the money spent would have otherwise been spent in New Zealand so half of the total money represents new money to the economy.

In 2003 there were 10 large sponsors, for this assessment we have assumed a range of between 8 and 14.

Media: This is an area of significant change and is likely to look very different in 2021 than it did in 2003 or even 2017. With the advancement of broadcast technologies, the delivery of broadcast content is likely to be highly fragmented and personalised. The role of any host broadcaster may look very different and may involve a much-reduced footprint in Auckland. What will be required is a large amount of hardware on the water technology to capture racing action. It is likely that much of this will be based around stabilised drones, rather than helicopters and chase boats. While they are expensive to develop and use, they are likely to be much less expensive than helicopters and chase boats.

Digital technology, means that the footage is likely to be cut and made into programmes for a wide range of platforms off-shore, with the only local input being a media centre (simply a dedicated room) where the press can ask questions of the sailors and owners.

For the purposes of this report, and given the level of uncertainty around the future, we have adopted the spend in 2003 as the mid-point with a 10% either side variance to provide a high and low.

Regatta Organisers: Each iteration of the America's Cup has an established organisation that deals solely with organising the regatta's. They are usually aligned with the yacht club that 'holds' the America's Cup

---

<sup>17</sup> The specific design parameters and location are currently unknown.



and they deal with all aspects around running the regatta's course establishment, measurement, timing, course management, race control, protest hearings and so on.

The Deed of Gift stipulates that the holder of the Cup sets the parameters for the event. This means that the regatta Organisers are usually closely aligned with the holding syndicate. However, their budget is separate and usually funded from fees paid by syndicates to compete and potentially a share of media rights income.

For the purposes of this report, we have assumed that the expenditure by Regatta organisers is simply scaled up from the 2003 event with a portion (20%) aligned to the number of syndicates. This allows a low, medium and high scenario aligned to syndicate numbers.

Syndicates: These are traditionally the largest expenditure group. For this round, the origin of manufacturing rule is likely to be stronger than it was in 2003. This means that their contribution to the Marine sector in 2021 is likely to be less than in previous iterations. However, they will still be based in New Zealand, paying rent, purchasing goods and services. Their team members will still be spending money in the economy. The budgets are likely to be large for the biggest campaigns, however, 'how large' will be totally dependent on the protocols released at the end of September.

In 2003 there were 9 challenger syndicates in total in Auckland. For the purposes of this assessment we have modelled between 6 and 10 challenger syndicates (in addition to TNZ) to provide a range of potential outcomes. This is important as the Syndicates represent the largest single expenditure group. We have also assumed that the mix between large medium and small syndicates is the same as in 2003. That is, 30% small (less than 80 member), 40% medium sized (approximately 90 members) and 30% large (approximately 120 members).

Emirates Team New Zealand: We have separated ETNZ from the other syndicates as they have a far larger impact than any other single syndicate. The nationality rules mean that the majority of the wages and salaries paid enter the New Zealand banking system. We note that people costs are approximately 60% of the total budgets. The boats and equipment used by the team is more than likely manufactured in New Zealand along with all the design work and so on.

We have assumed a range of budgets ETNZ may operate with from \$80m at the low end up to \$120m at the high end.

More detailed explanation of assumptions is contained in Appendix 1 at the end of this report.

We note that our assessment did not consider a situation where the event does not take place in NZ. The economic impacts and the cost/benefit relationships will be markedly different. Assessing such an alternative was beyond our scope of work.

## 2.3 Economic Impact Assessments

There are two models used to assess the economic impacts. They are;

- A Multi-Regional Input Output model (MRIO) to assess the distribution of effects across sectors and to model the short-term effects in direct, indirect and induced terms.

- 
- Computable General Equilibrium Model (CGE) to assess the longer-term impacts that are mostly generated by the infrastructure investment required to accommodate the event and visiting super yachts.

### 2.3.1 Input Output Model

Input-Output models are used extensively through New Zealand and globally to assess the economic impacts of events, programmes, policies and interventions. A key strength of Input-Output (IO) modelling is that the results it provides are easy to identify and digest. IO models are relatively easy to use once Input-Output tables are available for a particular region.

M.E use a proprietary model to translate NZ-wide, official information into regional level IO tables and models. The models are 'multi-regional' meaning that they include the transaction between sectors within a region as well as transaction with sectors in other regions. For this assessment, we developed a bespoke, two-region model with 219 sectors (2 x regions, 106 sectors, 7 primary input sectors, and 7 final demand categories). Importantly, we do not use multipliers that are derived from IO tables.

IO models are not without limitations. The most common limitations relate to the historical nature of IO Tables. In general, a key assumption is that input structures of all industries (i.e. technical relationships) are fixed. In the real world, however, technical relationships will change over time. These changes are driven by new technologies, relative price shifts, product substitutions and the emergence of new industries. For this reason, IO analysis is generally regarded as suitable for short-run analysis, where economic systems are unlikely to change greatly from the initial snapshot of data used to generate the base IO tables. In addition to the fixed structure assumption, other important assumptions (and limitations) of IO models are:

- **Constant return to scale:** This means that the same quantity of inputs is needed per unit of output, regardless of the level of production. In other words, if output increases by 10 per cent, input requirements will also increase by 10 per cent.
- **No supply constraints:** IO assumes there are no restrictions to inputs requirements and assumes there is enough to produce an unlimited product.
- **The model is static:** No price changes are built in meaning that dynamic feedbacks between price and quantity (e.g. substitution between labour and capital) are not captured.

The following indicators are used to measure economic impact:

- **Gross Domestic Product (GDP) and/or Value Added (VA):** These two measures capture all payments to factors of production (land, labour and capital), and excludes all purchases of intermediate inputs that are used during the production process. GDP and VA are broadly similar with the main difference relating to how taxes of products are treated. The components of value added include compensation of employees (salary and wages), operating surplus (company profits), consumption of fixed capital (depreciation), and subsidies.
- **Employment** is measured in Modified Employee Count years (MECs). This is the number of full-time and part-time employees as well as working proprietors on an annual basis. This provides a measure of the labour demand associated with the estimate level of economic activity. Note that



additional MEC-years do not necessarily require that additional persons are employed. It may mean existing employees, or proprietors, work longer hours to complete the additional work.

### 2.3.2 Computable General Equilibrium Model

A CGE model allows a more complicated assessment of economic impacts than an EIA model (as described above) because it builds into the equations dynamics around resource allocation and price change. It does this at the expense of understanding both the pathway to the total impact, and the distribution of impacts across sectors. It does however, report the final outcome once the economy has returned to 'equilibrium'.

A CGE model seeks to simultaneously determine commodity and factor prices, subject to budgetary constraints that operate within an economy. Each agent's decisions affect other agents in the market simultaneously, and equilibrium prices that satisfy all constraints and agent's behaviour are calculated.

The CGE model used in this study is based on a standard Arrow-Debreu general equilibrium framework (Arrow and Debreu, 1954), where optimisation functions are concave and have continuous first and second order derivatives, thus implying a unique solution. In short, the model simultaneously solves a maximisation of utility/profit problem for multiple economic agents, i.e. industries, households (one aggregate agent for each region), governments (two agents for each region – local and central government), and enterprises (one aggregate agent for each region). The model solution determines the optimal level of commodity production and consumption. Altogether the model recognises a total of 48 different commodity types, and these can originate from within the local economy, from the rest of New Zealand or abroad. The prices of commodities and, depending on the problem, factors of production (i.e. labour and capital) are unknown variables that are adjusted by the model to maximise utility/profit of agents, while ensuring that demand and supply are balanced within all commodity and factor markets. Another important set of constraints within the model relate to agent budgets. These constraints generally ensure that net income received by each agent over a study period is equivalent to that agent's expenditure, where net income includes net transfers from other agents and the rest of the world, less income diverted towards savings.

As applied in the America's Cup assessment, information on government investment in developing the infrastructure and the benefits that are likely to flow from that investment are used to generate total change in the economy over time to 2055. Outputs are reported in terms of the additional annual Gross Output, GDP, Employment and Tax revenue as a direct result of the investment in the infrastructure.

Importantly, the CGE model explicitly accounts for price change, labour and capital movement and the effects of resource constraints in a multi-regional manner. In other words, the CGE model addresses questions about crowding out.

CGE models have been widely used by economists to assess the medium-to-long run economic implications of major sporting events e.g. the Melbourne 2006 Commonwealth Games, the 2000 Sydney Olympics and 2011 Rugby World Cup New Zealand. CGE models quantitatively describe how agents within an economy (businesses, government, households and importers/exporters) simultaneously interact when stimulated by a major event. They explicitly account for the efficiency maximising behaviour of firms, the utility maximising behaviour of households, while ensuring that household and government budgetary constraints are met. By simulating the decision-making processes of these agents, CGE models show the



economic implications of sporting events in terms of changes in gross domestic product (GDP), employment, government revenue and spending, savings, investments and balance of trade.

## 2.4 CBA Information and Data

The Cost-Benefit Analysis (CBA) is the key tool used to assess the relationship between a project's (or programme's) costs and its benefits. Whereas the IO and CGE models estimate the GDP and employment effects of the event and how the economic shock 'flows through' the economy, a CBA does not cover these aspects. Crucially, economic impacts are not benefits.

The approach we follow in the CBA assessment is consistent with Treasury's guidelines on CBAs, parts of the Business Case guidelines as well as Auckland Council's CBA Primer. As part of developing the CBA framework, we reviewed the data/information about the anticipated investment and spending and then estimated key ratios explaining the relationship(s) between a sector's revenue (sales) and its costs using different sources, including:

- Official statistics from:
  - Statistics New Zealand (e.g. producers' inflation data, Annual Enterprise Survey, Business Demography Survey),
  - Ministry of Business Innovation and Employment (e.g. tourism spending and information).
- Marine Industry Association information,
- Information about the NZ super yacht industry collected during interviews,<sup>18</sup>
- M.E's own in-house models and data, including:
  - The Auckland Regional Input Output tables,
  - Auckland Computable General Equilibrium model, and
  - Employment data.

Using the scenario information (i.e. the additional spending) we estimate the gross benefit and the gross cost associated with delivering the economic services associated with the benefit. A strict assessment envelope was used to ensure that only the additional spending, costs and benefits were included in the assessment. In terms of the spatial distribution of the costs and benefits, the initial intention was to consider the Auckland-NZ distribution but due to information limitations it was not possible to (robustly) provide this level of resolution. Therefore, the results are presented at a NZ-wide level. Based on the available information, it appears that most of the benefits (and cost) will accrue to Auckland.

An important point to consider is how the project will be funded. For example, if the project is funded via taxation (e.g. rates or tax), this will cause a shift in governments' spending and may introduce other effects such as deadweight<sup>19</sup> costs.

---

<sup>18</sup> Some of the interviews were conducted for this project but we also used insights from interviews associated with earlier projects.

<sup>19</sup> Deadweight costs add 20% to the overall costs (NZ Treasury). This additional cost was applied to the relevant spending/investment streams.



## 3 Economic Impact Assessment (EIA)

Economic impact assessment is a complex and demanding procedure. It is important to detail the procedures involved in collecting, analysing and interpreting the expenditure information, the assumptions made, the conventions used and the methods applied to calculate the economic impact from the expenditure statistics. This section summarises the results of the EIA focusing on the MRIO model. The CGE model results are presented in the next section.

### 3.1 Introduction

The America's Cup regatta is a multi-faceted event, taking place over an extended period and involving a prolonged build up for many syndicates. It results in many different organisations and individuals being involved in extensive and diverse interactions within the Auckland and national economies. The impacts on the economy will be equally diverse. Considerable effort is made in the study to identify all the significant areas of activity, and expenditure flows from the principal **spending** entities and groups, to the **selling** entities - principally businesses servicing the requirements of the spenders. Key considerations about the assessment includes:

- A scenario approach was followed (with Low, Medium and High scenarios),
- The information underpinning the assumptions were drawn for the 2003 event (the information was collected during the event using surveys).
- We used the best available data,
- Six to ten syndicates were included in the assessments (a major component/driver of spend is the number of syndicates who challenge).

It is important to note here that only the net additional spending is put through the modelling process. This means that money that would have been spent regardless, is excluded. For example, the event is to be held in Auckland. Auckland Council will play a major role in facilitating the event. The money they spend is drawn from the ratepayer base in Auckland and would have been spent in Auckland regardless. Therefore, any Auckland Council spending is not considered new money into the Auckland economy, so plays no role in the economic impact assessment.

This same idea, at the national level, covers central government spending. Even if money is borrowed to invest in the event, the money cannot be considered 'new' to the economy. Central government money that is spent in Auckland, over and above what would normally be spent, needs to be netted off money government spends across the rest of New Zealand. This reduces the 'rest of New Zealand' impacts.

The impacts are presented in terms of the 'direct and indirect' impacts as well as the 'total' impacts. Each group includes:

- Direct and indirect impacts – when an economic change occurs ('shock'), the economy responds by firstly increasing (or decreasing) activities that supply the goods and services needed to address that shock (this is the direct effect). All firms supplying those firms responding to the direct effect,



adjust their outputs (and require another round of inputs) to meet the new demand. This is the indirect effects.

- The 'total impact' reflects the 'direct', 'indirect' and 'induced' effects. As firms respond (direct and indirect effects) they employ additional workers or increase staffing hours. This leads to a lift (or decrease in the case of a negative shock) in salary and wage payments to households in return for their labour. As households spend their earnings, another round of effects is created. These are termed the induced effects. All three components combine to give the 'total effect'.

The results of the two groups are presented below.

## 3.2 Direct and Indirect Impacts

It is important to identify the share of total expenditure in the Auckland economy, transfer effects within the national economy, and to exclude expenditure directed overseas (imports). The modelling has spread expenditure between Auckland and other regions of New Zealand, especially from the main spending organisations (syndicates, organisers, supporters, superyachts, hosts) to ensure they are sheeted home appropriately. The construction expenditure, on base development, wharves and exhibition facilities, will all be in Auckland, while the syndicates' and organisers' direct spend will be predominantly in Auckland. Information from the 2003 event was used to describe travel packages and travel patterns of crew and team personal, sponsors' guests and others providing the basis for allocating expenditure to the rest of New Zealand.

Interviews with boating industry, (e.g. NZ Marine and Oram's Marine) have provided information to cross check the shares of spending by superyachts, syndicates and organisers which will be attracted to Auckland.

Information from 2003 has been used to identify both time spent in Auckland by international and domestic visitors and average daily expenditure levels, so that shares of their total spend could be allocated. The calculations will allow for the same daily expenditure levels in Auckland as for the total visit, and from that perspective may be conservative since there are generally more spending opportunities in Auckland than in other destinations.

The outcome from the expenditure analysis has produced:

- Total net additional expenditure by spending group or entity, excluding transfers.
- Distributed between Auckland and the rest of New Zealand.
- Distributed between 2018, 2019, 2020, 2021 when the event occurs.
- Distributed across sectors of the Auckland and national economies.
- Impacts over time including Gross Output<sup>20</sup>, Value Added and Employment measured in modified employee counts, or MECs<sup>21</sup>.

---

<sup>20</sup> Not reported.

<sup>21</sup> Modified Employee Counts are a proprietary M.E measure that takes standard Employee Counts from Statistics New Zealand and allows for the addition of Working Proprietors, who may not be recorded as Employees for Tax purposes.

### 3.2.1 Low Scenario

The Low scenario effectively sets all the assumptions reported in Figure 2.3 and above, to their lowest settings. In total, this sees a net additional spend in Auckland of \$421m in current terms, a net outflow from the rest of New Zealand of \$18m for an overall national net additional spend of \$403m.

Assessing the impact of this level of expenditure, requires analysing how the money moves through the Auckland and Rest of New Zealand economies. The effect of Government spending an additional \$50m in Auckland plus the assumption that domestic tourists would otherwise have spent their money at home is offset by the additional spend that flows to the regions.

As mentioned, the direct and indirect effects capture the initial injection of money, plus the response businesses must make to cater for the additional final demands they face. They are required to purchase new inputs and this generates additional purchases up the chain. Note this excludes the effects of workers and business owners spending their incomes in the economy. Those induced effects are covered in the next section. Figure 3.1 summarises the economic impacts (using the MRIO model).

Figure 3.1: Direct and Indirect Effects of Low Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL
<b>Auckland Region</b>					
Value Added (\$m)	27	70	115	167	<b>380</b>
Employment	206	551	1,096	1,654	<b>3,507</b>
<b>Rest of New Zealand</b>					
Value Added (\$m)	2	6	13	21	<b>42</b>
Employment	13	49	135	203	<b>400</b>
<b>Total</b>					
Value Added (\$m)	29	76	129	188	<b>422</b>
Employment	218	599	1,231	1,858	<b>3,906</b>

In total, under the Low scenario, Value Add (VA) in Auckland increases by \$380m. Employment required to sustain these changes rises by the equivalent of 3,507 full time workers working for a year.

For the Rest of New Zealand, the reduction in government spending there is more than offset by the additional demands Auckland places on the regions. Overall, activity in the rest of New Zealand increases and generates \$42m in additional value add, sustaining employment equivalent to 400 full time workers for a year. At the national level, VA increases by \$422m and employment by the equivalent of 3,906 workers.

### 3.2.2 Medium Scenario

Under the Medium Scenario, all the assumptions reported in Figure 3.2, above are at their medium settings. For many categories, this means the 2003 figures factored up to current dollar terms are applied to the revised drivers. The medium scenario sees a net additional spend in Auckland of \$723m in current terms, a net outflow from the rest of New Zealand of \$40m for an overall national net additional spend of \$683m.

Under the Medium scenario, VA in Auckland increases by \$524m (refer to Figure 3.2). Employment required to sustain these changes rises by the equivalent of 4,760 full time workers working for a year.

Figure 3.2: Direct and Indirect Effects of the Medium Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL
<b>Auckland Region</b>					
Value Added (\$m)	39	106	158	221	524
Employment	291	806	1,482	2,177	4,755
<b>Rest of New Zealand</b>					
Value Added (\$m)	3	9	18	26	56
Employment	19	68	182	256	524
<b>Total</b>					
Value Added (\$m)	42	114	176	248	580
Employment	309	874	1,664	2,433	5,279

For the Rest of New Zealand, the reduction in government spending is more than offset by the additional demands Auckland places on the regions. Overall, VA in the rest of New Zealand increases by \$56m, sustaining employment equivalent to 524 full time workers for a year. At the national level, VA increases by \$580m and employment by the equivalent of 5,279 workers.

### 3.2.3 High Scenario

Under the High Scenario, all the assumptions reported in Figure 2.3, above are at their High settings. In total, this sees a net additional spend in Auckland of \$922m in current terms, a net outflow from the rest of New Zealand of \$30m for an overall national net additional spend of \$892m.

Under the High scenario, VA in Auckland increases by \$671m. Employment required to sustain these changes rises by the equivalent of 6,138 full time workers working for a year.

For the Rest of New Zealand, the reduction in government spending is more than offset by the additional demands Auckland places on the regions. Auckland is highly connected to the rest of New Zealand. Increased demand in Auckland stimulates additional requirements for the regions to generate goods and services to meet Auckland needs. This means that America's Cup expenditure injections in Auckland flow through the rest of the national economy, generating GDP and sustaining employment elsewhere. In other words, the rest of NZ will also feel the economic effects of the AC36.

Overall, VA in the rest of New Zealand increases by \$70m and sustains employment equivalent to 654 full time workers for a year.

At the national level, VA lift by \$562m and employment by the equivalent of 5,421 workers.

Figure 3.3: Direct and Indirect Effects of the High Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL
<b>Auckland Region</b>					
Value Added (\$m)	46	120	200	306	671
Employment	343	928	1,883	2,984	6,138
<b>Rest of New Zealand</b>					
Value Added (\$m)	3	10	23	34	70
Employment	22	79	229	325	654
<b>Total</b>					
Value Added (\$m)	49	130	222	340	562
Employment	365	1,007	2,112	3,309	5,421

### 3.3 Total Economic Impacts

Estimating the total effects requires us to close the loop, to allow people who have been paid additional wages and salaries or who have taken additional profits because of the increases in final demands arising from the America’s Cup, to spend a portion in the economy. The Total Economic Impacts adds these Induced effects to the Direct and Indirect effects discussed in the preceding section to produce a total impact.

This section focuses on the full impacts, that is the direct, indirect and induced effects that arise because of the net additional change in demands felt in the Auckland and rest of New Zealand economies. Again, VA and employment are used as indicators.

#### 3.3.1 Low Scenario

Under the Low scenario, the total impacts on the Auckland economy are an increase in VA of \$485m (over the 4 years leading up to and including the regattas). This is expected to sustain employment equivalent to almost 4,143 workers working for a year. Across the Rest of New Zealand, the total impacts on VA of \$70m is expected and this will support employment equivalent to 600 workers working for a full year. This means that at the national level the event will increase Value Add by \$555m and sustain employment equivalent to 4,743 workers working full time for a year.

Figure 3.4: Total Economic Impacts of the Low Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL EVENT
<b>Auckland Region</b>					
Value Added (\$m)	35	90	147	213	485
Employment	250	668	1,289	1,936	4,143
<b>Rest of New Zealand</b>					
Value Added (\$m)	4	11	22	34	70
Employment	25	82	197	296	600
<b>Total</b>					
Value Added (\$m)	38	100	169	247	555
Employment	275	750	1,486	2,232	4,743

### 3.3.2 Medium Scenario

Under the Medium scenario, the total impacts on the Auckland economy are an increase in VA by \$669m (over the 4 years leading up to and including the regattas). This is expected to sustain employment equivalent to almost 5,635 workers working for a year.

Across the Rest of New Zealand, the total impacts on the economy is expected to generate Value Add of some \$94m, supporting employment equivalent to 798 workers working for a full year. This means that at the national level the event will increase in VA is \$763m and the associated employment equivalent comes in at 6,433 workers working full time for a year.

Figure 3.5: Total Economic Impacts of the Medium Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL EVENT
<b>Auckland Region</b>					
Value Added(\$m)	50	135	202	283	<b>669</b>
Employment	355	982	1,747	2,551	<b>5,635</b>
<b>Rest of New Zealand</b>					
Value Added (\$m)	5	16	30	43	<b>94</b>
Employment	36	118	266	378	<b>798</b>
<b>Total</b>					
Value Added (\$m)	55	150	232	326	<b>763</b>
Employment	391	1,100	2,013	2,928	<b>6,433</b>

### 3.3.3 High Scenario

Under the High scenario, the total impacts on the Auckland economy are an increase in activity that translates into a lift in VA of \$858m (over the 4 years leading up to and including the regattas). This is expected to sustain employment equivalent to almost 7,269 workers working for a year.

Across the Rest of New Zealand, the total impacts VA is \$119m, supporting employment equivalent to 1,004 workers working for a full year. At the national level the event will increase economic activity that will deliver VA\$977m and sustain employment equivalent to 8,272 workers working full time for a year (Figure 3.6).

Figure 3.6: Total Economic Impacts of the High Expenditure AC36 Scenario, 2018 - 2021

	2018	2019	2020	2021	TOTAL EVENT
<b>Auckland Region</b>					
Value Added (\$m)	58	153	255	392	<b>858</b>
Employment	418	1,128	2,218	3,504	<b>7,269</b>
<b>Rest of New Zealand</b>					
Value Added (\$m)	6	18	38	57	<b>119</b>
Employment	42	136	336	489	<b>1,004</b>
<b>Total</b>					
Value Added (\$m)	64	171	293	449	<b>977</b>
Employment	460	1,264	2,554	3,994	<b>8,272</b>

## 3.4 Key drivers

The degree of influence each spending group has on the outcome is listed in Appendix 1 and 2. The direct spend data for each spend group under the three modelled scenarios indicates that the biggest difference is generated by the change in super yacht numbers. Moving from 100 to 159 super yachts in total adds over \$175m in net additional direct spend to the Auckland economy (Figure 3.7).

Figure 3.7: Additional Direct AC36 Spend added to Auckland economy, 2021 (\$000)

	Low to Med (\$000)	Low to High (\$000)
<b>SY Spend</b>	\$59,300	\$175,000
<b>Other Boats</b>	\$3,600	\$5,500
<b>Domestic Visitors</b>	\$1,600	\$3,400
<b>International Visitors</b>	\$2,900	\$5,800
<b>Central Government</b>	\$50,100	\$50,100
<b>Local Government</b>	\$-	\$-
<b>Syndicate Members</b>	\$13,500	\$26,900
<b>Sponsors</b>	\$7,100	\$14,300
<b>Media</b>	\$3,300	\$6,500
<b>Regatta Organisers</b>	\$1,600	\$3,200
<b>Challenger Syndicates</b>	\$30,900	\$61,800
<b>Team New Zealand</b>	\$20,000	\$40,000
<b>TOTAL</b>	\$193,900	\$392,500

The second largest shift is the move from 6 to 10 challenger syndicates. This adds almost \$62m in direct spend to the Auckland economy. The third largest is the difference between Central Government investing in the large infrastructure project or on additional facilities to accommodate super yachts in a more ad hoc manner.

The next largest driver is the design and syndicate rules that ETNZ develop. We have assumed a budget difference for Team New Zealand between the low and high scenarios of around \$40m.

## 3.5 Impact by Sectors

Appended to this report (Appendix 3) are tables that present the distribution of impact across the top 10 sectors in terms of contribution to GDP and employment.

Unsurprisingly the sector experiencing the largest impact (in GDP terms) as a result of hosting the America's Cup is transport equipment manufacturing (Boatbuilding). This is followed by the food retail sector and services, property operation, civil construction and accommodation. Collectively these sectors account for almost 40% of the total GDP impact.



## 3.6 Impacts relative to the 2003 event

The economic impact assessment of the 2003 event estimated that the event generated some \$523m of net additional spending in the NZ economy (over 2000-2003) and this translated into \$529m of additional VA in the NZ economy. Of course, if this is expressed in today's terms (to account for inflation), then the economic impact (VA) is put at \$713m. This is between \$50m and \$264m lower than the medium and high scenarios but \$158m higher than the low scenario.

Therefore, if the AC36's facilitated spending comes in at levels that are similar to the medium scenario, then the impacts would be even greater than those that arose from the 2003 event. Importantly, even if the impacts are like those modelled under the low scenario, the total impacts (coming in at over VA\$0.5bn), are still material.

Unfortunately, it is not possible to complete a similar comparison for the CGE modelling or the CBA assessment (presented in the next sections) because the 2003 EIA did not use these tools.

## 3.7 IO and crowding out

One limitation of IO models is that they provide a static snapshot of the economy, and assume no dynamic effects occur as a result of additional expenditure – for example, on wages paid and exchange rates. A “crowding out” effect may occur where additional business activity generated by America's Cup spending means that other activity normally carried out by those businesses will not be able to take place, because of lack of extra capacity, or higher costs. This may happen where entire sectors are operating at full capacity, and there was no opportunity to increase the labour or capital resource to handle the additional demand, or to divert it to other sectors, or other time periods during the event.

As mentioned, Input-Output modelling does not provide a full picture of the effects of such crowding out. Therefore, the economic effects are also assessed using a different modelling tool – a Computable General Equilibrium model to reflect the potential implications associated with substitution (and crowding out). Section 4 presents the economic impacts using a CGE model.



# 4 Computable General Equilibrium (CGE)

## 4.1 Introduction

Underpinning CGE models are detailed and comprehensive databases of the transactions that occur within an economy and it is possible to link the transactions that will occur during the event with those datasets. The CGE model used in this study is based on the latest available National Accounts from Statistics New Zealand. It is a static (single period) and multi-regional (covering Auckland and rest of New Zealand economies) model with fixed endowments of factors of production.

Further to the overriding assumptions outlined above, core assumptions relied upon for the M.E CGE analysis are:

- The CGE model is based on the 2007 year, as the underlying data is based on 2007 National Accounts inter-industry transaction table released by Statistics New Zealand. Data has been expressed in the relevant base year's terms using appropriate Producers Price Index (PPI) and Consumers Price Index (CPI) deflators. The results of the CGE model were then adjusted to current terms (\$2017) to assist with comparing it to the IO results.
- Related to the above, a limitation of the CGE model is that the economic structures implicit in the model (that is, the way in which the national economy works) reflects the economy as at 2007 and is therefore pre-Global Financial Crisis (GFC). The structure of the New Zealand economy has changed because of the GFC, and furthermore, by the Christchurch earthquakes. Irrespective of this matter, using a CGE model (even with the dated base year) is still valuable because it reflects economic processes (such as price increase and product/input substitution) that take place in the economy that are not reflected in the MRIO approach. Therefore, the CGE results add to the economic assessment and provides another perspective.
- There are many scenarios under which the CGE can be run. "Factor mobility assumptions are a useful way to categorise CGE model results as describing short run, medium run or long run adjustments to economic shocks. In the short run, some factors – usually capital – are immobile and the economy's production response is therefore limited. Analyses of long run adjustment assume that all factors are fully mobile and, in addition, long run changes in factor supply and productivity occur". For this study, M.E have adopted a 'Medium Run CGE Closure' scenario. In broad terms, this assumes that the changes in factors of production are limited (constrained) by their price and that the rates of investment and household consumption are assumed to be fixed. This scenario also assumes that the Government balances its budget.

The CGE model focuses on the investment in infrastructure and the way it (and the facilitated effects) stimulates the economy in the medium to long term. While the IO model is appropriate for assessing the short-term effects, the CGE are used to assess the longer term (legacy) effects. If the government (local and central) decides to build a wharf extension to facilitate the America's Cup and provide additional capacity for super yachts, the infrastructure is available for many years to come. This will ensure that other America's Cup events can be accommodated, other events such as the Volvo Ocean Race have a permanent



base. Most importantly, the facility has the ability to cater over the long term to growth in super yacht numbers.

Currently, Auckland is visited by approximately 60 yachts annually. Even if New Zealand holds its share of global super yachts constant, numbers will double by 2048. If New Zealand increases its attraction in any way, the numbers grow strongly earlier. A five per cent increase (year on year) above global growth sees numbers double by 2029. The ability to accommodate a share of this growth is important for Auckland's super yacht refit sector and the wider economy. A general rule of thumb is that on average a super yacht spends \$3m when visiting New Zealand – this includes tourism related expenditures and marine sector spend and spending associated with re-provisioning. A large boat refit is around \$10m.

Facilitating the long-term impact of that growth is the real benefit arising from the government investment. The results discussed in 4.2 below focus solely on the facilitated super yacht impact over the long term (out to 2055). The CGE results are not a substitute for the IO results described above, rather they represent additional long-term effects of the investment. In effect, they are mostly additional to the EIA results that cover the years to 2021 as they cover a different category with only a small cross over (the super yacht spend between 2018 and 2021). The CGE scenarios shows:

- Low Scenario: Anticipated super yacht visitation under the low scenario sees 75 yacht visits in 2022. Note that in this scenario, 75 is the maximum number of yachts that can visit. This scenario does not represent an additional wharf structure that could facilitate more visits, so this is excluded<sup>22</sup> from the analysis.
- Medium Scenario: Following the America's Cup, visitation drops back to 89, rising to 97 annually by 2025. In terms of infrastructure investment, both the medium and high scenarios have the same level of investment in infrastructure (but with different growth profiles). Under the medium scenario, New Zealand as a destination grows at 1.5% annually over and above overall super yacht growth.
- High Scenario: The high scenario sees New Zealand's attraction grow by 5% annually over and above global growth. The high scenario reflects the investment in wharf infrastructure. It assumes that associated industry infrastructure can be optimised, and that the infrastructure investment will enable the market to capture a larger share of the global market. (Please note the different growth rate relative to the medium scenario; this is the key difference between the medium and high scenarios).

While there are a wide range of factors that influence attraction, New Zealand's location in the South West Pacific is important, but factors such as the exchange rate relative to the US dollar, the competitive threat from Australia and South East Asia and the global geo-political situation will all influence New Zealand's position as a first choice destination for super yacht visitation and refit work. The table shows when the local industry will hit the estimated capacity under the different growth assumptions. Clearly, the main difference between these scenarios is the rate of change with the medium scenario taking longer to reach capacity

---

<sup>22</sup> The CGE modelling focusses on the long-term effects of the investment and the low scenario (as defined) here does not include additional infrastructure investment.



Figure 4.1: Annual Super Yachts, 2025 - 2030

	2025	2035	2045	2055
<b>Medium</b>	102	158	159	159
<b>High</b>	131	159	159	159

For the purposes of assessing the benefits associated with the governments’ investment in infrastructure expenditure, the medium and high scenarios are modelled. This is because, there is general agreement within the marine sector that the numbers associated with the facility as modelled above are conservative and therefore represent a robust assessment base for decision making. Note also that 159 yachts represent the maximum that could be achieved (based on current berthing arrangements) once the new wharf is added. Given global market growth and a reasonable attraction rate, this maximum is expected to be reached around 2036 or 2028<sup>23</sup> (for the medium and high scenarios).

## 4.2 CGE model results

CGE modelling results are divided into changes in Real Gross Output, Real GDP, Employment and Real changes in tax revenue collected by Government. Given that GDP and employment are more useful indicators of the effect than output, we do not report output<sup>24</sup>. We also report in the tax revenue (a separate effect). Employment is measured in modified employee count (MEC) equivalent terms. This means that the additional employment identified is an equivalent measure rather than a ‘new jobs’ measure, as a portion of the extra employment may be made up from over-time or improved working practices. In terms of the estimated total tax revenue, the additional tax is made up from extra household taxes paid, additional enterprise tax, and additional tax paid from overseas. The following table summarises the estimated GDP, employment and tax impacts.

Figure 4.2: Average annual real GDP and employment effects from new wharf investment, 2025 - 2055

		2025	2035	2045	2055
<b>GDP - \$’m</b>	Medium	29	114	123	123
	High	39	121	123	123
<b>Employment</b>	Medium	182	550	595	595
	High	241	584	595	595
<b>Tax</b>	Medium	8.3	26.2	29.1	29.1
	High	10.6	28.5	29.1	29.1

Nationally, the investment increases Real GDP by up to \$123m annually once the operating maximum (capacity limit) is reached. In real terms, New Zealand’s employment will increase by between 182 and 241 worker years in 2025 and to 595 worker years when at capacity (annually). At the national level the net

<sup>23</sup> The rates of change and industry capacity used in the analysis were informed by industry engagements as part of another project.

<sup>24</sup> We can provide the output results if needed.



position is an increase to almost \$29m in tax revenue, annually when capacity is reached. This is up from around \$10m in 2025.

By taking the long term distribution of the GDP effects and comparing it against required investment it is possible to get a sense of the 'return' on the initial investment (note: this is not a CBA). The CGE analysis suggests that for every \$1 invested in infrastructure, around \$7.50 of economic activity is generated<sup>25</sup>.

---

<sup>25</sup> Note this is GDP expressed in NPV terms and GDP (including the GDP effects in the lead-up to the event) is not the same as benefits.

# 5 Costs versus Benefits

## 5.1 Introduction

This section presents the findings of the cost benefit analysis. Instead of presenting the results as a single value, a range is presented to reflect the uncertainty surrounding the capital costs, the magnitude of benefits, when these materialise and the time value of money<sup>26</sup>. It is very important to note that the long(er) term effects associated with the marine industry are not reflected in this analysis. Including the long-term effects will increase the benefits (and the cost-benefit ratio). Specifically, the marine industry and the super yacht activities (refit and maintenance) are expected to see medium to long term effects stemming from the infrastructure investment and the lift in market profile (and global exposure) stemming from the event. These effects are long term: +25 years. The potential scale of these effects is the focus of a separate work stream and these impacts are expected to have a material and positive impact on the benefits to Auckland and NZ, i.e. lift the overall benefits. The CBA presented in this section looks at the pre-event and the event but not the long-term effects associated with the lift in super yacht activity.

The cost and benefit values are based on the 'new' and additional spending associated with the event and these were estimated using information from the earlier studies. The value of the goods and services traded (bought or sold) in the market place reflects the market price for those products. The economic impact of the event reflects the flow on, or ripple effects, of the spending. But, a CBA typically considers the direct or 'first round' effects<sup>27</sup>. For our assessment, we took care to reflect the 'first round spending' by allocating the \$-spend to appropriate sectors<sup>28</sup>.

The CBA relies on the same assumptions that informed the economic impact assessment, including the estimated spending across the different categories. In terms of funding, the CBA assumes that the funds are raised using a new tax (and rates). This is because it is not known what activities would be foregone if existing budgets are used. If the funds are transferred away from existing activities to fund the investment, then the CBA would need to reflect any benefits that are 'lost' due to some activities not being funded. Importantly, by assuming the funds are raised using a new tax (and/or rates), a deadweight cost is introduced<sup>29</sup>.

## 5.2 Findings

The relationships between the costs and benefits of the event are presented below by using the three scenarios – low, medium and high. A sensitivity analysis was completed to test the results under different assumptions – specifically the high capital cost and low turnout (benefits) assumptions were combined. To do this, we applied an arbitrary factor to increase/decrease the relevant parameters. The findings are

---

<sup>26</sup> As reflected using different discount rates.

<sup>27</sup> This is consistent with the NZ Treasury approach.

<sup>28</sup> For example, assume that a super yacht owner spends \$1m on a refit and the spending is managed by a project manager. That is, the owner pays the project manager \$1m, who in turns pays \$950,000 to sub-contractors to undertake the refit. The \$950,000 is a cost to the project manager, suggesting that the net benefit is \$50,000. However, the \$950,000 should be allocated to the contractors and their costs (to do the work) should be estimated when determining the cost-benefit relationships.

<sup>29</sup> We have included a deadweight cost as outlined by NZ Treasury.

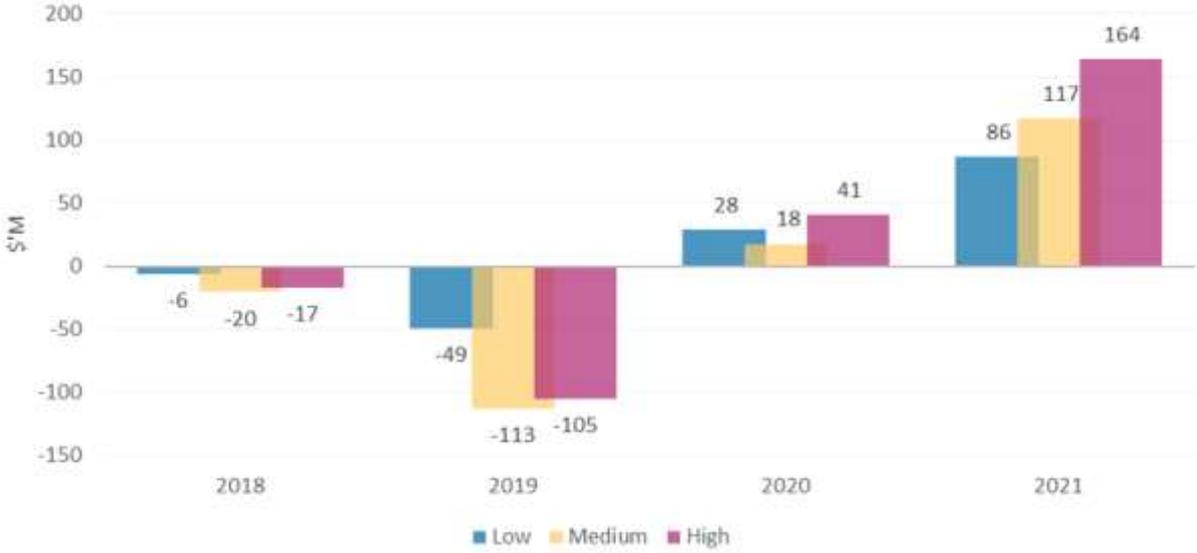


presented at a total New Zealand wide level and we used discounted cash flow<sup>30</sup> (DCF) analysis to present the results as single, easy to interpret values. We report the following metrics:

- The annual position i.e. the difference between the costs<sup>31</sup> and benefits for each year,
- The cumulative position, or the running total, showing the difference between the costs and benefits over time, and
- The cost-benefit ratio, that is, the relationship between the costs and the benefits.

Figure 5.1 shows the net annual position. These values reflect the direct costs (construction costs) and the additional spending in the economy (benefits) as well as the costs associated with servicing the new spending. The figure shows the net position on an annual basis.

Figure 5.1: Net annual position (benefits less cost)



The key observations are:

- In the first two years (2018 and 2019) the net position across all the scenarios is negative. This aligns with the construction period. There are benefits during these years, but they are outweighed by the costs. Most of the costs are associated with construction activity. The benefits that do arise are estimated at \$15.6m and \$34.0m (undiscounted) for these two years and are linked with the syndicate activity.
- During the third year (2020), the benefits start to outweigh the costs. This is driven by construction related expenditure coming to an end. During 2020 the remainder (25%) of the construction is projected to take place. This lowers the net benefit recorded during this year by between \$25m and \$50m. Irrespective of the construction costs, the combined activities of the syndicates, regatta

<sup>30</sup> DCF is used to express future cash flows in current terms. Given the relatively short assessment timeframe, the assessment is insensitive to using different discount rates.

<sup>31</sup> The costs include an allowance for deadweight costs associated with government spending (local and central government).

organisers, media and sponsors are projected to generate a net benefit (outweighing the cost associated with the construction).

- During 2021, the event is expected to return the bulk of the benefits (49% of the net benefits under the medium scenario, 49% and 52% under the low and high scenarios). As expected, the main driver of benefits is related to the syndicate and organiser’s expenditure and the associated benefits as well as the spending (and benefits) of international visitors and super yachts. These two categories combined contribute 66% of the overall spending<sup>32</sup>. Media related spending accounts for a further 7% to 10% of the spending in 2021. Overall, the super yacht category is expected to dominate the effects, followed by international visitors. This highlights the high value character of these two categories. The analysis suggests that in 2021, these two categories (combined) will generate between \$52.4m and \$109.6m of benefit (\$72.3m under the medium scenario).

It is possible to express the net position (benefits vs costs) in cumulative terms i.e. as a running total (adding the costs and benefits together over different years). Figure 5.2 shows the cumulative position and Appendix 4 provides a breakdown of the costs and benefits associated with the different scenarios.

Figure 5.2: Cumulative Position



<sup>32</sup> The spending is a gross benefit.



As expected, the benefit position of the event drops below zero during the initial years, when the construction activity takes place. The deficit (costs > benefits) is reversed in 2021 when the cumulative benefits delivered by the event are great than the investment.

In terms of the profiles shown in the above figure, it is very important to recall the scenario descriptions and the assumptions underpinning each. The scenarios (low, medium and high) do not show low, medium and high costs and benefits (in the same scenario). Instead, the low scenario shows low(er) investment and an increase in activity (super yachts, sponsors etc.). Whereas the main difference in between the medium and the high scenario is the level of super yacht activity (the investment cost is the same). Essentially, the medium and high scenarios show a range of outcomes for the same level of investment.

It is notable that the medium and high scenarios have similar (shaped) profiles with the investment costs causing a larger negative position (deficit) over the initial years before returning to a positive net position. The low scenario also reflects a smaller regatta with fewer syndicates, fewer visitors/tourists and slower uptake of the super yacht opportunities. This points to the need to recognise the limitations of the study, particularly around the scale of the event and the investment (capital expenditure). The reasons for this are based on:

- Firstly, the construction cost's effects (a higher cost - \$100m vs \$200m; double the investment cost),
- Secondly, the scale of the resulting activity (e.g. spending by visitors, syndicates etc.) is smaller<sup>33</sup>.

These two aspects combine to determine the shape of the profiles. The key point to note is that all scenarios return a positive position i.e. the benefits outweigh the costs.

The relationship between the costs and the benefits is shown by the cost benefit ratio (CBR). When estimating the CBR, it is important to consider not only the direct cost (e.g. the cost associated with delivering the infrastructure) but also the costs associated with delivering the goods and services associated with the 'new' spending<sup>34</sup>.

**The CBR across the three scenarios (low, medium and high) and using different discount rates<sup>35</sup> comes in at 0.997, 1.1 and 1.14 (for the medium, high and low scenarios). The figure is greater than one (1) meaning that the benefits outweigh the costs. The net benefit is estimated at between -\$2.0m and \$76.0m.** The range reflects the scenarios and the different discount rates. The maximum net position relates to the high scenario (i.e. the largest event with the most syndicates, visitors and super yacht activity). The smallest net benefit relates to the medium scenario (due to the high capital cost).

At this stage of the AC36 process, there are several unknowns. Adjusting the key inputs to reflect a more pessimistic situation, provides an indication of the cost-benefit relationship under adverse conditions. A combined scenario of high cost and low benefits (e.g. spend by super yachts and international visitors) was tested. For each scenario, the capital cost was increased by 20% and the elements affecting the benefit

---

<sup>33</sup> And therefore, the costs to deliver those goods and services are also less.

<sup>34</sup> Essentially, this is to account for the use of resources (and the opportunity costs) in delivering the goods and services associated with the additional spending.

<sup>35</sup> We used 4%, 6% and 8% discount rates.

side of the ledger were all decreased by 20%. In addition, these two adjustments were combined to reflect high cost-low benefit situation. The following table shows the outcome of the sensitivity analysis.

**CBR under different sensitivities**

Scenario	Unadjusted	Higher Cost +20%	Lower benefits -20%	Combined +20% & -20%
<b>Low</b>	1.14	1.07	1.05	0.99
<b>Medium</b>	0.997	0.93	0.91	0.84
<b>High</b>	1.10	1.04	1.02	0.95

The analysis suggests that under the settings, the low and high scenarios continue to return CBRs above 1 except under the combined settings (cost +20% and benefits less 20%) when these two scenarios fall marginally below 1. The medium scenario returns a CBR of slightly below 1 as the base (unadjusted) position and the high cost/low benefit setting lowers the ratio (further below 1). We note that the medium scenario’s CBR is sensitive to shifts and if a cost of \$150m is used (mid-point between low and high scenarios), then the CBR comes in at 1.1 (up from 0.997). Further if a \$150m investment is required under the low scenario, then the CBR falls to 0.995 (from 1.14).

### 5.3 Other considerations

The CBR assessment focused on the effects that are directly associated with hosting the event and it also focuses on the short term. There are other aspects and economic considerations that are not included in this assessment, such as:

- The use of the harbour and developing permanent (or semi-permanent) infrastructure: Adding new infrastructure and building into the harbour will have its own set of effects. On one side of the ledger, adding new space will add to the real estate (property) market with flow on effects such as, increasing the Auckland Council’s rating base, adding to the economic activity that is undertaken at the Viaduct/Wynyard quarter (with the GDP effects beyond the super yachts as discussed). For example, there could be potential to add to the existing hospitality sector and extend public space. In turn, this could generate other benefits such as health benefits and hospitality spending from visitors staying longer in NZ. However, it can also be argued that taking up space will lead to a loss of other values. There are intangible values associated with the harbour including eco-systems service values, cultural values, option values and so forth<sup>36</sup> that would be lost (or diminished) if water space is developed.
- The CBA focuses on the short term, specifically the pre-event and the event. It does not consider the long-term effects reaching beyond the event. Examples of these effects include long term economic shifts (as discussed in the CGE modelling) and the medium to effects on Auckland and NZ’s marine industry due to the global exposure and profile development.

<sup>36</sup> These aspects are normally assessed in close consultation with affected and interested parties, but the timeframes of this assessment did not allow for these aspects to be considered. Such an assessment will need to be informed and guided by the final design.

- 
- Externalities associated with the construction phase such as pollution, noise, traffic congestion, road closures etc.

In addition, the America's Cup will also deliver other benefits to Auckland and NZ<sup>37</sup> that are difficult to quantify and express in monetary units. Examples of such benefits are listed below:

- Strengthening and lifting Auckland and NZ's profile as a host city and nation: NZ and Auckland have experience in hosting international sporting events and examples include: the Rugby World Cup, Cricket World Cup (co-host), World Masters Games and previous rounds of the America's Cup. Continuing to attract and host these global scale events will support NZ's 'brand'. In turn this will support future efforts to attract other global events. A large portion of these effects will arise from the 'marketing exposure' that is expected/associated with international media exposure.
- Increasing the growth and local participation in sailing and water sports. The growth in participation will have a set of economic impacts associated with participants buying equipment (these values and the flow on impacts are normally economic impacts) but the benefits of participating in the sports and activity will deliver other benefits such as:
  - Health benefits through a change in physical activity,
  - Contribution to social activity and developing social networks at the micro<sup>38</sup> level.
- International research suggests that sporting achievements in general elicit feelings of pride.<sup>39</sup> However, the results show that national pride is stable with some evidence of correlation with sporting achievements. In the context of the AC36, this suggest that the national pride is more associated with winning the event (in Bermuda) than with hosting it. Of course, hosting the event<sup>40</sup> is a by-product of the recent success.
- Connected to the issue of positive image, is community level effects that could be created. The mentioned research shows that hosting events can increase a sense of belonging and other positive social outcomes such as tolerance, multiculturalism and solidarity. Some research<sup>41</sup> connect the positive effects of events to the economic impacts (i.e. the positive outcomes) and the economic impacts are expected to be substantial (as shown earlier).

---

<sup>37</sup> If it is hosted in Auckland.

<sup>38</sup> e.g. at a club or association level vs a city or NZ-wide level.

<sup>39</sup> Mulier Institute and Utrecht University. Creating social impact with sport. Report prepared for the Ministry of Health, Welfare and Sport. July 2016.

<sup>40</sup> Assuming Auckland will host the AC36.

<sup>41</sup> Cornelissen, S. & Maennig, W. (2010). On the Political Economy of 'Feel-good' Effects at Sport Mega-events: Experiences from FIFA Germany 2006 and Prospects for South Africa 2010. *Alternation* 17,2 (2010) pp. 96 – 120.

## 6 Maori Economy

The final broad area of assessment is the manner in which hosting the America's Cup impacts on the Maori economy. It is beyond the scope of this exercise to generate a specific Maori economic structure, therefore some more general measures have been adopted.

The America's Cup impacts across a wide range of sectors within and outside of Auckland. Maori are engaged as business owners and workers in a different manner to the population as a whole. Statistics on business ownership are difficult to obtain at the regional level, therefore we have relied on ethnicity of employment at the 1-digit ANZSIC industry level which is available from the 2013 Census for all regions. It is likely that Maori business ownership patterns mimic Maori employment patterns – at least in a general sense.

This data allows concentration quotients to be calculated. These highlight the sectors where Maori ethnicity workers are represented at higher levels than the total population. For example, the 5,103 Maori workers in the Construction sector represent 10.2% of the Maori employment total. However, the 43,995 total construction workers represent only 7.1% of all workers. This means Maori are over represented in Construction relative to employment overall, resulting in a concentration quotient of 1.44 (Figure 6.1).

Figure 6.1: Employment by Ethnicity, Auckland Region 2013

Auckland Region	NZ Maori	Total	Concentration Quotient
Agriculture, Forestry and Fishing	642	8,499	0.94
Mining	45	393	1.43
Manufacturing	5,001	61,728	1.01
Electricity, Gas, Water and Waste Services	417	3,276	1.58
Construction	5,103	43,995	1.44
Wholesale Trade	3,084	44,412	0.86
Retail Trade	4,158	60,228	0.86
Accommodation and Food Services	2,436	35,103	0.86
Transport, Postal and Warehousing	3,918	29,577	1.65
Information Media and Telecommunications	1,347	17,199	0.98
Financial and Insurance Services	1,908	33,165	0.72
Rental, Hiring and Real Estate Services	1,188	18,504	0.80
Professional, Scientific and Technical Services	3,564	70,905	0.63
Administrative and Support Services	2,235	25,608	1.09
Public Administration and Safety	2,904	24,456	1.48
Education and Training	4,377	51,474	1.06
Health Care and Social Assistance	4,419	56,565	0.97
Arts and Recreation Services	1,296	11,997	1.34
Other Services	1,980	25,665	0.96
<b>Total Auckland</b>	<b>50,022</b>	<b>622,749</b>	<b>1.00</b>

Source: SNZ Census 2013, self-reported

By comparing this employment profile with a similar profile based on where the employment effects arising from AC36's net additional expenditure, it is possible to assess in a relative sense how the Maori economy is likely to be impacted.

Figure 6.2: Distribution of Employment Impacts - Low, Medium and High AC36 Scenarios, Auckland Region

Auckland Region	Total Impact			Total Share of Impact		
	Low	Med	High	Low	Med	High
Agriculture, Forestry and Fishing	15	20	25	0%	0%	0%
Mining	1	2	2	0%	0%	0%
Manufacturing	563	787	1,084	14%	14%	15%
Electricity, Gas, Water and Waste Services	18	25	31	0%	0%	0%
Construction	258	437	475	6%	8%	7%
Wholesale Trade	114	163	204	3%	3%	3%
Retail Trade	965	1,306	1,792	23%	23%	25%
Accommodation and Food Services	881	1,132	1,427	21%	20%	20%
Transport, Postal and Warehousing	170	221	268	4%	4%	4%
Information Media and Telecommunications	74	95	117	2%	2%	2%
Financial and Insurance Services	78	106	137	2%	2%	2%
Rental, Hiring and Real Estate Services	98	130	164	2%	2%	2%
Professional, Scientific and Technical Services	356	473	590	9%	8%	8%
Administrative and Support Services	200	265	333	5%	5%	5%
Public Administration and Safety	15	21	27	0%	0%	0%
Education and Training	47	62	78	1%	1%	1%
Health Care and Social Assistance	61	85	108	1%	2%	1%
Arts and Recreation Services	157	207	280	4%	4%	4%
Other Services	71	97	127	2%	2%	2%
<b>Total Auckland</b>	<b>4,143</b>	<b>5,635</b>	<b>7,269</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Comparing the sectors where the America's Cup impact (in employment terms) is greatest with where Maori employment is concentrated in Auckland shows that most employment effect (up to 60%) occurs in sectors where Maori are under-represented in employment terms (see Figure 6.3).

Figure 6.3: Comparison of AC36 Employment effect with Maori Employment Shares.

Maori Concentration Quotient	Low	Medium	High
Low Concentration	60%	59%	59%
Neutral	20%	20%	21%
High Concentration	20%	21%	20%

Around 20% occurs in sectors where Maori are over represented and the remaining 20% are in sectors where Maori more or less match the total share of employment. A good example illustrates this effect, approximately 45% of all employment generated in Auckland because of hosting the 36<sup>th</sup> America's Cup is expected to occur in the retailing, accommodation and hospitality. These sectors only employ around 13% of Maori, meaning that the additional employment (which may be in the form of overtime as well as new jobs) may not benefit Maori as much as the rest of the existing workforce.

## 7 Conclusions

The America's Cup is an iconic event in New Zealand's sporting history. Successive governments have seen the benefits that flow from investing in both the event itself (when held in New Zealand) and from investing in Emirates Team New Zealand<sup>42</sup> – even when the event is not going to be held in New Zealand. The flow on effects for New Zealand's Marine Industry and "Brand New Zealand" are significant.

The assessment considered the potential economic impacts of hosting the event on the Auckland and New Zealand economies using different tools, including the economic impact assessments (using a Multi-Regional Input-Output model and a Computable General Equilibrium model) as well as a Cost-Benefit Assessment. Notwithstanding the limitations and restrictions<sup>43</sup> of these tools, the analysis suggests that hosting the event is likely to result in positive economic impacts over the short and long term. These impacts will be significant ranging between \$555m and \$977m (VA) to NZ over the 2018-2021 period.

The long-term impacts of the event and the infrastructure spend relate mostly to lifting Auckland and NZ's marine industry's profile. The gain is estimated to lift the size of the economy by \$123m (GDP) each year by 2055. This increase reflects a permanent, step change in the size of the economy and is driven by an increase in the super yacht market (and receiving export receipts).

These positive economic impacts are important and significant. But it is necessary to view these impacts in the wider context of the infrastructure costs and the additional costs to businesses to deliver the goods and services. The assessment of cost and benefits, and the relationships between them suggests that over **the short term** (2018-2021) the anticipated benefits will outweigh the costs. In other words, if government were making an investment decision simply based on the activity generated to the end of the America's Cup regatta's, **the benefits outweigh the costs.**

Further, the sensitivity analysis revealed that when using higher construction costs (high costs plus 20%) and lower benefits (low scenario reduced by 20%), the AC36's CBR falls to slightly below 1. Using a different measure<sup>44</sup> suggests that for every \$1 invested, between \$1.25 and \$1.89 of benefit will accrue to the economy.

By taking a longer view, that is by including the activity generated by additional super yacht visits to 2055, the benefits very much outweigh the costs. To 2055 our modelling suggests that every \$1 invested generates approximately \$7.50 of economic activity<sup>45</sup>.

---

<sup>42</sup> Including the then 'Team New Zealand'.

<sup>43</sup> The limitations of these models are well documented. For example, IO models are often critiqued for being static (not including price changes and resource constraints) and CGE models are referred to as 'black boxes' because they are difficult to review (they tend to run in specialist mathematical software such as GAMS). In addition to the conceptual critique, there are practical constraints such as the base year of the models (as mentioned earlier) and the level of detail that can be robustly modelled.

<sup>44</sup> The Net Benefits relative to the capital costs.

<sup>45</sup> Note this is GDP (in NPV terms). Crucially, GDP is not the same as benefits.



## Appendix 1: Assumptions

A number of significant assumptions have been made in order to develop the model to reflect a likely 2021 economic outcome. The majority of assumptions are drawn from information collected from surveys of the 2003 defence from spectators, syndicates, super yachts and others. The key ones are presented in Figure 2.3, above and more detail in this appendix, below.

### Super Yachts

- 104 super yachts attended the 2003 event along with 612 other boats (smaller than super yachts). Of these 19% attended solely for the America's Cup, 56% America's Cup was one of the reasons, for 25% it was not a reason. Expenditures drawn from surveys of these boats were aggregated to reflect 612 boats then discounted by reasons to produce an America's Cup attributable volume of spend. In total \$154.6m was spent in 2003 by these boats (S.Y's and others). The ratios of spend from these boats has been inflated to 2017 using the Producers Price Index and divided by the number of Super Yachts, then applied to estimates of America's Cup bound super yachts for 2021.
- This process led to a base spend of \$2.05m / yacht spent in Auckland. This figure has been factored up based on information from NZ Marine and Silo Marina who survey super yachts. This information indicates that spending has increased on average/vessel as the boats are on average larger than in 2003. NZ Marine figures point to approximately \$3.0m / vessel visit. Therefore, a factor of 1.5 has been applied to base spend to reflect this shift between 2003 and 2017.
- The base number of super yachts has been set at 60. This reflects the number expected on an average cruising season (in recent times). Note this base could change following investment plans within the Wynyard quarter, however the rationale for those investments is partially tied to the America's Cup so have not been included in the base.
- The High Medium and Low estimates of yachts attending is based on different investment strategies. Assuming no additional facilities are built, a total of 100 yachts could be accommodated within existing infrastructure. This forms the low scenario. The High scenario assumes that the full level of government investment occurs plus other infrastructure is available to facilitate the number of yachts (Site 18 as a refit haul-out facility, space for containers and ease of entry/exit/pilotage). The Medium scenario also assumes the wharf investment but a lower level of attraction.
- Super Yacht spend applies to the difference between scenario and base case.
- Super Yachts account for between 23% and 32% of the total direct spend.

### Domestic Tourism

- In 2003 a survey was carried out to quantify the numbers of domestic visitors attending the America's Cup and the level of influence the America's Cup had on their decision to come to Auckland (see table below). Total spend estimates are based on the distribution of spend drawn from the Domestic Tourism Survey (at the time). Totals for the 2003 event are presented in the second table, below.

<b>OVERNIGHT VISITORS</b>		<b>Only Reason</b>	<b>Main Reason</b>	<b>One Reason</b>	<b>Total</b>
<b>Visitors</b>		10,614	31,955	119,403	161,972
<b>Nights</b>		29,593	70,746	301,682	402,021
<b>Mean Length of Stay</b>		2.79	2.21	2.53	2.48
<b>Expenditure</b>	\$m	5.5	8.0	34.4	47.9
<b>Spend</b>	\$/day	185.7	113.4	114.1	119.2
<b>Spend per Visitor</b>	\$	517.7	251.2	288.3	296.0

#### Domestic Tourist Spend Auckland 2003 – America’s Cup

<b>Category</b>	<b>Auckland AC Spend (2003)</b>
	<b>\$m</b>
<b>Retail trade</b>	7.1
<b>Accommodation</b>	2.6
<b>Bars, clubs, cafes and restaurants</b>	3.8
<b>Road passenger transport</b>	0.6
<b>Air transport, services to transport and storage</b>	3.2
<b>Lotteries, casinos and other gambling</b>	0.2
<b>Other sport and recreational services</b>	1.0
<b>Total</b>	18.5

- We have assumed the same proportions as the 2003 survey and have adopted the 2003 total visitor count as the mid point for this assessment. The High scenario adopts 175,000 and the Low scenario 150,000.
- As with all other categories, spend values per head are factored up to 2017 terms using CPI
- Domestic Tourists account for 3% - 4% of the total direct spend

#### International Visitors

- International tourists were surveyed in 2003 to assess the degree to which the America’s Cup influenced their decision to visit Auckland/New Zealand. The resulting information was used to shape the spending that could be attributed to the presence of the Cup in Auckland. The ratios and proportions from the 2003 survey have been held constant for this study.
- As above, all values on a per visitor basis have been inflated to 2017 terms.
- We have assumed that 100% of spend associated with the America’s Cup being the only reason for the visit is attributable to the event; 75% of the ‘Main Reason’ respondents, 30% of the ‘One Reason’ respondents and 0% of the ‘Not a Reason’ respondents.
- The total number of international visitors surveyed in 2003 (around 23,900) are assumed under the medium scenario. The High and Low are plus or minus 10%.
- We have assumed 80% of the spend occurs in 2021 and 20% in 2020.

- International visitor spend represents between 3% and 5% of the total direct America's Cup spend in Auckland.

Figure 7.1: International Visitor Survey America's Cup by reason for visit and spend, 2003.

	<b>Spectators</b>	<b>Supporters</b>	<b>Others</b>	<b>Total</b>
<b>Step 1. Influence of America's Cup</b>				
Only Reason	2.2%	13.5%	0.0%	<b>0.4%</b>
Main reason	3.6%	10.9%	0.0%	<b>0.5%</b>
One Reason	17.3%	40.2%	0.5%	<b>2.8%</b>
SUB-TOTAL	23.1%	64.6%	0.6%	<b>3.6%</b>
Not a Reason	76.9%	35.4%	99.4%	<b>96.4%</b>
<i>TOTAL</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>
<b>Step 2. Visitors Attracted by America's Cup</b>				
Only Reason	2,290	310	280	<b>2,880</b>
Main reason	3,700	250	250	<b>4,200</b>
One Reason	17,890	930	3,320	<b>22,140</b>
SUB-TOTAL	23,880	1,490	3,850	<b>29,220</b>
Not a Reason	79,640	820	693,070	<b>773,530</b>
<i>TOTAL</i>	<i>103,520</i>	<i>2,310</i>	<i>696,920</i>	<i>802,750</i>
<b>Step 3. Expenditure Associated with America's Cup (\$m)</b>				
Only Reason	8.9	0.9	1.0	<b>10.8</b>
Main reason	14.5	0.7	0.9	<b>16.0</b>
One Reason	69.9	2.6	11.5	<b>83.9</b>
SUB-TOTAL	93.3	4.2	13.3	<b>110.8</b>
Not a Reason	311.0	2.3	2,392.2	<b>2,705.4</b>
<i>TOTAL</i>	<i>404.3</i>	<i>6.5</i>	<i>2,405.4</i>	<i>2,816.2</i>
<b>Step 4. Expenditure Attributable to America's Cup (\$m)</b>				
Only Reason	8.9	0.9	1.0	<b>10.8</b>
Main reason	10.8	0.5	0.7	<b>12.0</b>
One Reason	21.0	0.8	3.4	<b>25.2</b>
<i>TOTAL</i>	<i>40.8</i>	<i>2.2</i>	<i>5.0</i>	<i>48.0</i>

## Central Government

- The majority of central government spend for the 2021 AC36 event is likely to be the wharf infrastructure to facilitate the bases and potentially super yacht berths.
- This has a total cost of approximately \$200m of which central government will cover 50% (\$100m).
- This figure has been assumed for both the High scenario and the Medium scenario. The Low scenario assumes no permanent wharf infrastructure is spent, rather \$50m from central



government is spent on other ways to attract and accommodate super yachts and syndicate bases.

- In addition, Central Government spend other monies in 2003 to leverage off the Cup. In total \$7.5m was spent - \$6m in Auckland.
- For the purposes of the Economic Impact assessment, it has been assumed that the funding for the infrastructure build is diverted from other government spend. This means that for the money to be spent in Auckland, less money is spent elsewhere. We have assumed that government money is spent broadly in line with population. Therefore, Auckland could more or less expect a third of all central government spending, the rest of New Zealand the other two thirds. This means that assuming the government pulls the \$100m for the America's Cup infrastructure evenly from across New Zealand to spend in Auckland, that one third of it would not be new money to the Auckland economy. We have assumed that 2/3rds of the money is new (\$67m of the \$100m) and that \$67m is removed from spending across the rest of New Zealand.
- While it is impossible to know exactly how the money would be sourced or which other spending might be diverted or delayed, for the purposes of this report, we have assumed that the money is reduced in a pro rata way from the rest of New Zealand. That means that if everywhere government spends money is reduced in proportion.

### **Local Government**

- Money that Auckland Council spend in relation to the America's Cup is removed from other programmes Auckland Council might be currently or will soon be engaged in. The money is not new to the economy. Therefore, while there may be some slight differences between sectors in terms of how spend flows through an economy, it is beyond the scope of this exercise to predict exactly where the funds would otherwise have been spent.
- We have simply assumed that the money is not new, therefore there is no additional effect generated by the local government funding – other than that generated by the effects it facilitates which are captured elsewhere.

### **Syndicate Members**

- Money spent by crew, families friends and relatives while living and visiting Auckland. The numbers are based on a set of assumptions about how many syndicates, their mix between small, medium and large, how many other family members are collocated with the team and how long the teams are based in Auckland.
- We have assumed that 30% of syndicates are small, 40% are medium and 30% are large



Table 7-1: Syndicate Member Assumptions, AC36, 2021

	Crew No.	Days Total	Days in Auckland		
			2019	2020	2021
<b>Small syndicates</b>	80	180		90	90
<b>Medium syndicates</b>	90	375	35	250	90
<b>Large syndicates</b>	120	499	109	300	90

- We have assumed that the small syndicates spend a total of 180 days in Auckland over the 2020 and 2021 years, the medium sized syndicates spend 375 days in Auckland over 3 years while the large syndicates spend almost 500 days over 3 years in Auckland.
- The number of days is drawn from small medium and large syndicate averages from the 2003 campaign.
- We have assumed there is 1.02 family members for every crew person in Auckland.
- We have assumed that there is 0.81 friends / crew member who visit for 14 days during the duration of the event – spread over the 2020 and 2021 years. Again, these are averages drawn from the 2003 study.
- Surveys from 2003 were used to populate average expenditure profiles for syndicate members and their families while in Auckland.
- In total the syndicate members account for between 7% and 8% of total direct America’s Cup spend (\$40m - \$67m in Auckland plus another \$8m - \$14m in the rest of New Zealand).

### Sponsors

- In the 2003 edition of the America’s Cup, there were 10 large sponsors of the event and Team New Zealand. On top of the money they provided to the team, they spent money on promotional activities around the event. That money is captured here.
- Collectively they spent some \$20.6m – all bar \$14,000 in Auckland.
- For this study, we have assumed that 11 sponsors is the medium scenario with the same pattern of associated sponsorship promotional spend. A large event has been modelled with 25% more (14 in total) and a small event with 8.
- Sponsor spend distribution is based on 2003 surveys and has been factored up to 2017
- Sponsor spend plays a small role accounting for around 4% of total direct expenditure.

### Media

- Media spend is assumed to be the exact same structure as 2003. This is one area that might change significantly for the 2021 event, however with very little information available, it is next to impossible to determine how much it will change and how.

- By adopting the structure and scale of the 2003 media spend, we may be over estimating the direct effects in 2021. Technological changes may see high usage of drones and international feeds may be direct with very limited time spent editing and packaging footage and programmes in New Zealand.
- It may be advisable to treat the media figures as a guide, if the 2021 event is similar to the 2023 event this is what the media spend could look like.
- The surveyed 2003 expending structures have been factored up to 2017 dollar terms. A low, Medium and High has been set up at plus or minus 10% around the 2003 average.
- Media spend, under these assumptions accounts for between 4% and 6% of the total direct spend

### Regatta Organisers

- We have assumed that spend associated with the hosting of the races will be broadly the same as in 2003. To that end we have adopted the 2003 expenditure profiles based on interviews with the regatta organisers, and updated them to \$2017
- We have assumed that a portion of the spend (20%) varies depending on how many syndicates attend the event. Therefore the main variable between the low medium and high scenarios is the number of syndicates (6, 8 or 10).
- Regatta organisers spend between 4% and 6% of the total (\$33.5m - \$36.7m) to run the Prada Cup and the America's Cup regatta's.
- We have assumed that there are no additional racing series associated with this iteration of the event and that the racing structure is the same or very similar to the 2003 event.

### Challenger Syndicates

- The Challenger syndicates are the second largest group. Attracting more syndicates to compete in the regatta's is the single best action to increase the economic effects of the America's Cup.
- In total we estimate that the Challenger syndicates spend make up between 17% and 18% of the total, or between \$92.7m and \$154.5m.
- As with other spend categories, ratios of spending based on the 2003 regatta, have been drawn from the surveys of the 2003 event and scaled up to \$2017.
- These have been turned into a per syndicate spend average and applied across 3 scenarios Low (6 syndicates), Medium (10) and High (12).
- We have assumed that the majority of boat related spend must occur in the country of origin. We have assumed that the rule will be stricter than in 2003. We have therefore reduced the spending in the Marine sector in New Zealand by 50% (compared with the 2003 event). It may be that the rules stipulate only hulls must be constructed in the country of origin which may mean our estimates are low, however, a strict country of origin rule has applied in recent events, so it is a more conservative path to adopt that protocol in this instance.

- 
- To account for budget creep since the 2003 event, we have assumed that an average team spends 1.5 times what they did in 2003. That is on top of inflation adjustment. In recent events spending has increased dramatically, so simply adopting the 2003 average will under count.
  - The distribution and timing of spending is fully based on the timing and distribution of spending from the 2003 event – where all syndicates were surveyed.

### **Team New Zealand**

- We estimate that in 2003 Team NZ spent approximately \$49m in current terms. This figure is too low to adopt and apply for the 2021 campaign. Therefore, we have factored it up to between \$80m and \$120m (Low to High) to provide more realism.
- Team NZ's spend by itself makes them the third largest contributor to the event (between 13% and 15% of the total).
- We have assumed that this is all new money to the Auckland economy.
- The presence of the regatta is the reason Team New Zealand exists. It is therefore important to include the full amount when carrying out an economic assessment of the event.
- If the event were to be held in another location, a large portion of this money would still be spent in Auckland. However, it is difficult to estimate that share. Had ETNZ not won in Bermuda, there are doubts the campaign would have carried on. The type and nature of the event and the hold Oracle had over rules, innovation and even the other syndicates, means that an ETNZ with limited budgets may not have mounted another challenge.

## Appendix 2: Direct Spend Totals – by Spend Sector

The economic impacts of the America's Cup are driven by direct expenditure generated by the different spending groups. Totals for the three scenarios are presented below for Auckland Region and the Rest of New Zealand.

### Direct Spend Assumptions – AC36 (\$)

Auckland Spend		\$m		
	Low	Med	High	
SY Spend	118.7	178.0	293.7	
Other Boats	10.9	14.6	16.4	
Domestic Visitors	20.4	22.0	23.8	
International Visitors	26.2	29.1	32.0	
Central Government	58.0	108.2	108.2	
Local Government	-	-	-	
Syndicate Members	40.4	53.9	67.3	
Sponsors	19.0	26.1	33.3	
Media	29.5	32.7	36.0	
Regatta Organisers	23.9	31.9	39.9	
Syndicates	92.7	123.6	154.5	
Team New Zealand	80.0	100.0	120.0	
<b>TOTAL</b>	<b>519.7</b>	<b>720.1</b>	<b>925.1</b>	
Rest of NZ Spend		\$m		
	Low	Med	High	
SY Spend	4.1	6.2	10.2	
Other Boats	3.7	4.9	5.5	
Domestic Visitors	-20.4	-22.0	-23.8	
International Visitors	23.7	26.3	28.9	
Central Government	-38.4	-72.0	-71.1	
Local Government	0.0	0.0	0.0	
Syndicate Members	8.4	11.3	14.1	
Sponsors	0.0	0.0	0.0	
Media	1.2	1.3	1.4	
Regatta Organisers	0.6	0.8	1.0	
Syndicates	2.2	2.9	3.7	
Team New Zealand	0.0	0.0	0.0	
<b>TOTAL</b>	<b>-14.9</b>	<b>-40.4</b>	<b>-30.1</b>	

## Appendix 3: Total Economic Impact by Key Sectors

### Economic Impact by Key Sectors ranked by contribution to GDP (\$m): LOW

Sector Name	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)
	Auckland			Rest of New Zealand			New Zealand		
Transport equipment manufacturing	113.31	57.3	371	4	2	14	117	59	385
Food and beverage services	47.16	27.38	603	5	3	78	52	30	681
Supermarket and grocery stores	28.72	22.34	291	1	1	14	30	23	305
Non-residential property operation	36.38	20.55	37	6	3	8	42	24	45
Heavy and civil engineering construction	46.02	19.87	114	1	0	1	47	20	115
Accommodation	31.45	18.89	277	7	4	74	39	23	351
Legal and accounting services	22.52	17.45	116	1	1	8	24	19	124
Scientific, architectural and engineering services	20.03	13.45	88	2	1	8	22	15	96
Banking and financing; financial asset investing	17.29	12.29	41	2	2	6	20	14	47
Furniture, electrical and hardware retailing	17.1	12.19	131	1	1	7	18	13	138
Advertising, market research and management services	18.55	11.29	122	2	1	13	20	12	135
Rental and hiring services (except real estate); non-financial asset leasing	16.36	10.67	45	2	1	5	18	12	50
Recreational, clothing, footwear and personal accessory retailing	15.99	10.43	159	1	0	7	17	11	166
Employment and other administrative services	15.81	9.77	152	2	1	17	18	11	169
Other store based retailing; non-store and commission based retailing	15.13	9.72	116	1	0	5	16	10	121
Construction services	16.91	8.76	89	2	1	11	19	10	100
Telecommunications services including internet service providers	14.76	8.32	26	2	1	3	16	9	29
Sport and recreation activities	15	8.23	102	1	1	9	16	9	111
Residential property operation	10.68	7.78	4	2	1	1	12	9	5
Road transport	15.35	7.54	76	9	4	41	24	12	117
Air and space transport	15.63	6.7	27	1	0	2	17	7	29
Department stores	8.77	6.41	68	0	0	4	9	7	72
Non-residential building construction	25.83	6.26	50	1	0	2	27	6	52
Machinery and equipment wholesaling	8.06	5.76	31	1	1	4	9	6	35
Fabricated metal product manufacturing	12.11	5.72	45	2	1	10	15	7	55
Motor vehicle and parts retailing	7.73	5.71	45	1	0	4	8	6	49
Other goods and commission based wholesaling	8.78	5.48	36	1	0	2	9	6	38
Computer system design and related services	6.24	4.75	25	1	1	5	8	6	30
Heritage and artistic activities	6.7	4.42	50	4	3	40	11	7	90
<b>Other Sectors</b>	<b>187.19</b>	<b>98.88</b>	<b>807</b>	<b>70</b>	<b>30</b>	<b>198</b>	<b>258</b>	<b>129</b>	<b>1,005</b>
<b>Total (Rounded and incl. Owner occupied dwellings)</b>	<b>851</b>	<b>485</b>	<b>4,143</b>	<b>137</b>	<b>70</b>	<b>600</b>	<b>988</b>	<b>555</b>	<b>4,743</b>



Economic Impact by Key Sectors ranked by contribution to GDP (\$m): MEDIUM

Sector Name	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)
	Auckland			Rest of New Zealand			New Zealand		
Transport equipment manufacturing	158	80	517	5	3	21	163	82	538
Food and beverage services	62	36	787	7	4	104	69	40	891
Supermarket and grocery stores	39	30	393	2	1	19	40	31	412
Non-residential property operation	49	28	51	7	4	10	57	32	61
Heavy and civil engineering construction	89	38	220	1	0	2	89	39	222
Accommodation	39	24	345	9	5	93	48	29	438
Legal and accounting services	30	23	152	2	1	10	31	24	162
Scientific, architectural and engineering services	26	18	116	2	1	10	29	19	126
Banking and financing; financial asset investing	24	17	56	3	2	8	27	19	64
Furniture, electrical and hardware retailing	23	17	177	1	1	10	24	17	187
Advertising, market research and management services	25	15	164	2	2	17	28	17	181
Rental and hiring services (except real estate); non-financial asset leasing	21	14	57	2	1	7	23	15	64
Recreational, clothing, footwear and personal accessory retailing	22	14	215	1	1	10	22	15	225
Employment and other administrative services	21	13	200	2	1	23	23	14	223
Other store based retailing; non-store and commission based retailing	21	13	157	1	1	7	21	14	164
Construction services	25	13	132	3	1	16	28	15	148
Telecommunications services including internet service providers	20	11	35	2	1	3	22	13	38
Sport and recreation activities	21	11	140	2	1	12	22	12	152
Residential property operation	15	11	6	2	2	1	17	12	7
Road transport	20	10	98	12	6	54	32	15	152
Air and space transport	19	8	34	1	1	2	21	9	36
Department stores	12	9	93	0	0	5	12	9	98
Non-residential building construction	41	10	78	1	0	2	42	10	80
Machinery and equipment wholesaling	12	8	44	1	1	5	13	9	49
Fabricated metal product manufacturing	18	8	66	4	2	15	21	10	81
Motor vehicle and parts retailing	11	8	62	1	1	5	11	8	67
Other goods and commission based wholesaling	12	8	51	1	0	3	13	8	54
Computer system design and related services	8	6	33	2	1	7	10	8	40
Heritage and artistic activities	8	5	60	5	3	46	13	8	106
Other Sectors	257	135	1097	97	41	268	354	176	1,365
<b>Total (Rounded and incl. Owner occupied dwellings)</b>	<b>1185</b>	<b>669</b>	<b>5635</b>	<b>186</b>	<b>94</b>	<b>798</b>	<b>1,371</b>	<b>763</b>	<b>6,433</b>

Economic Impact by Key Sectors ranked by contribution to GDP (\$m): HIGH

Sector Name	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)	Gross Output (\$m)	Value Add (\$m)	Employment (MEC)
	Auckland			Rest of New Zealand			New Zealand		
Transport equipment manufacturing	229	116	751	8	4	32	237	120	783
Food and beverage services	79	46	1010	9	5	131	88	51	1,141
Supermarket and grocery stores	53	42	541	2	2	26	55	43	567
Non-residential property operation	65	37	67	9	5	13	75	42	80
Heavy and civil engineering construction	90	39	223	1	0	3	91	39	226
Accommodation	47	28	417	11	7	113	58	35	530
Legal and accounting services	37	28	188	2	2	13	39	30	201
Scientific, architectural and engineering services	32	22	143	3	2	13	35	24	156
Banking and financing; financial asset investing	31	22	73	4	3	10	34	24	83
Furniture, electrical and hardware retailing	32	23	242	1	1	13	33	24	255
Advertising, market research and management services	32	19	208	3	2	21	35	21	229
Rental and hiring services (except real estate); non-financial asset leasing	25	16	69	3	2	8	28	18	77
Recreational, clothing, footwear and personal accessory retailing	30	19	294	1	1	13	31	20	307
Employment and other administrative services	26	16	249	3	2	28	29	18	277
Other store based retailing; non-store and commission based retailing	28	18	214	1	1	10	29	19	224
Construction services	30	15	157	4	2	20	33	17	177
Telecommunications services including internet service providers	25	14	44	3	2	4	28	16	48
Sport and recreation activities	30	16	200	2	1	16	32	18	216
Residential property operation	19	14	7	3	2	1	22	16	8
Road transport	24	12	119	14	7	67	38	19	186
Air and space transport	23	10	40	2	1	3	25	11	43
Department stores	16	12	127	1	0	6	17	12	133
Non-residential building construction	45	11	87	1	0	3	47	11	90
Machinery and equipment wholesaling	14	10	55	1	1	6	16	11	61
Fabricated metal product manufacturing	21	10	79	4	2	18	26	12	97
Motor vehicle and parts retailing	14	11	84	1	1	7	15	11	91
Other goods and commission based wholesaling	16	10	64	1	1	4	17	10	68
Computer system design and related services	10	8	42	2	2	9	12	9	51
Heritage and artistic activities	9	6	70	6	4	53	15	10	123
Other Sectors	324	171	1405	121	51	339	445	223	1,744
<b>Total (Rounded and incl. Owner occupied dwellings)</b>	<b>1510</b>	<b>858</b>	<b>7269</b>	<b>235</b>	<b>119</b>	<b>1,004</b>	<b>1,745</b>	<b>977</b>	<b>8,273</b>



Appendix 4: Breakdown of Costs and Benefits

(Excluding Capex)

<b>Gross Spending<sup>46</sup> (\$m)</b>	<b>Low</b>				<b>Medium</b>				<b>High</b>			
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>SY Spend</b>	-	-	24.6	98.2	-	-	36.8	147.4	-	-	60.8	243.1
<b>Other Boats</b>	-	-	2.9	11.7	-	-	3.9	15.6	-	-	4.4	17.5
<b>Domestic Visitors</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>International Visitors</b>	-	-	10.0	39.9	-	-	11.1	44.3	-	-	12.2	48.7
<b>Central Government</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Local Government</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Syndicate Members</b>	-	7.3	29.2	12.3	-	9.7	39.0	16.4	-	12.1	48.7	20.5
<b>Sponsors</b>	0.6	2.3	8.1	8.1	0.8	3.1	11.1	11.1	1.0	4.0	14.1	14.1
<b>Media</b>	-	0.9	5.9	23.8	-	1.0	6.6	26.4	-	1.1	7.3	29.1
<b>Regatta Organisers</b>	0.3	2.3	11.0	11.0	0.3	3.1	14.6	14.6	0.4	3.9	18.3	18.3
<b>Syndicates</b>	17.9	32.0	29.8	15.2	23.8	42.6	39.8	20.3	29.8	53.3	49.7	25.4
<b>Team New Zealand</b>	12.5	22.4	29.9	15.3	15.6	28.0	37.3	19.1	18.7	33.6	44.8	22.9
<b>SUM</b>	31.2	67.2	151.4	235.4	40.6	87.6	200.3	315.2	49.9	108.0	260.3	439.7

<sup>46</sup> The gross spending is treated as the benefit.



<b>Cost to Deliver</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>SY Spend</b>	-	-	15.5	61.9	-	-	23.2	92.8	-	-	38.3	153.2
<b>Other Boats</b>	-	-	1.7	6.9	-	-	2.3	9.2	-	-	2.6	10.4
<b>Domestic Visitors</b>												
<b>International Visitors</b>	-	-	6.0	23.9	-	-	6.6	26.5	-	-	7.3	29.2
<b>Central Government</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Local Government</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Syndicate Members</b>	-	4.3	17.3	7.3	-	5.7	23.1	9.7	-	7.2	28.9	12.2
<b>Sponsors</b>	0.3	1.4	4.9	4.9	0.5	1.9	6.7	6.7	0.6	2.4	8.5	8.5
<b>Media</b>	-	0.5	3.5	14.2	-	0.6	3.9	15.7	-	0.7	4.3	17.3
<b>Regatta Organisers</b>	0.2	1.4	6.5	6.5	0.2	1.9	8.7	8.7	0.3	2.4	10.8	10.8
<b>Syndicates</b>	11.0	19.7	18.2	9.3	14.7	26.3	24.2	12.4	18.4	32.9	30.3	15.5
<b>Team New Zealand</b>	7.6	13.7	18.3	9.3	9.6	17.1	22.9	11.7	11.5	20.5	27.4	14.0
<b>SUM</b>	19.2	41.1	91.8	144.1	24.9	53.6	121.6	193.4	30.7	66.1	158.4	271.0



<b>Net Position</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>		<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>		<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>SY Spend</b>	-	-	9.1	36.4		-	-	13.6	54.5		-	-	22.5	90.0
<b>Other Boats</b>	-	-	1.2	4.8		-	-	1.6	6.4		-	-	1.8	7.2
<b>Domestic Visitors</b>	-	-	0.0	0.0		-	-	0.0	0.0		-	-	0.0	0.0
<b>International Visitors</b>	-	-	4.0	16.0		-	-	4.4	17.8		-	-	4.9	19.6
<b>Central Government</b>	-	-	-	-		-	-	-	-		-	-	-	-
<b>Local Government</b>	-	-	-	-		-	-	-	-		-	-	-	-
<b>Syndicate Members</b>	-	3.0	11.9	5.0		-	4.0	15.9	6.7		-	5.0	19.9	8.4
<b>Sponsors</b>	0.2	0.9	3.2	3.2		0.3	1.2	4.4	4.4		0.4	1.6	5.6	5.6
<b>Media</b>	-	0.4	2.4	9.6		-	0.4	2.7	10.7		-	0.5	2.9	11.7
<b>Regatta Organisers</b>	0.1	0.9	4.5	4.5		0.1	1.2	6.0	6.0		0.2	1.5	7.5	7.5
<b>Syndicates</b>	6.8	12.2	11.7	6.0		9.1	16.3	15.6	7.9		11.4	20.4	19.5	9.9
<b>Team New Zealand</b>	4.8	8.7	11.6	5.9		6.1	10.8	14.5	7.4		7.3	13.0	17.4	8.9
<b>SUM</b>	12.0	26.1	59.6	91.4		15.6	34.0	78.7	121.8		19.2	41.9	101.9	168.7

