



8th June 2017

Newsletter No 4 - Chairman's Notes

ASTT Workshop: "Network Steam – Securing Steam's Future on Network Rail" Birmingham on 10th May 2017. Report by ASTT Chairman, John Hind.

I must first apologise for not writing these notes earlier as I know that several have been keen to know what went on. Unfortunately, the weeks following the workshop coincided with an intense period in my day-job which has taken up the time I normally devote to ASTT – the final checks to the notes have been done as I sit at Dusseldorf airport!!!

I have to thank Owen Jordan, Richard Coleby and Paul Hibberd for the post-workshop contributions that I have used.

1. Introduction:

The Workshop came about after Richard Coleby's heartfelt plea at our March meeting for a future for mainline steam.

This is simply a report of what happened on the day, which was about understanding the current situation with operating steam on the mainline in the 21st Century. There was not much discussion on what a lot of us find interesting – new build steam.

The meeting provided food for thought and it is too early to come to any conclusions on what ASTT's role should be helping mainline steam to keep running. One bookend is advising new build projects how to improve their locomotives – the Clan Project and the George the Vth are examples of that - the other bookend is promoting a new build Second Generation Steam locomotive, which many of us would love to do. Advising others is at no cost to us (other than time) - the other bookend building a Second Generation Steam Locomotive would mean raising circa £10,000,000.

A follow up meeting is planned in the late autumn – plans for that are given later.

Through Dave Gibson and Owen Jordan who are working with the University of Birmingham's Centre for Railway Research and Education (BCRRE) on the development of their K6 project, we were able to secure a room at the university that was fully equipped with 21st century presentation tools, including 3 very large LCD TV's to which we could connect our laptops. Luckily it was the same kit used at my work, so I was able to turn it on and control it! The days of chalk are long gone from today's universities. Catering was on the next floor and as a sign of the times menus were in English and Chinese.

2. Attendance

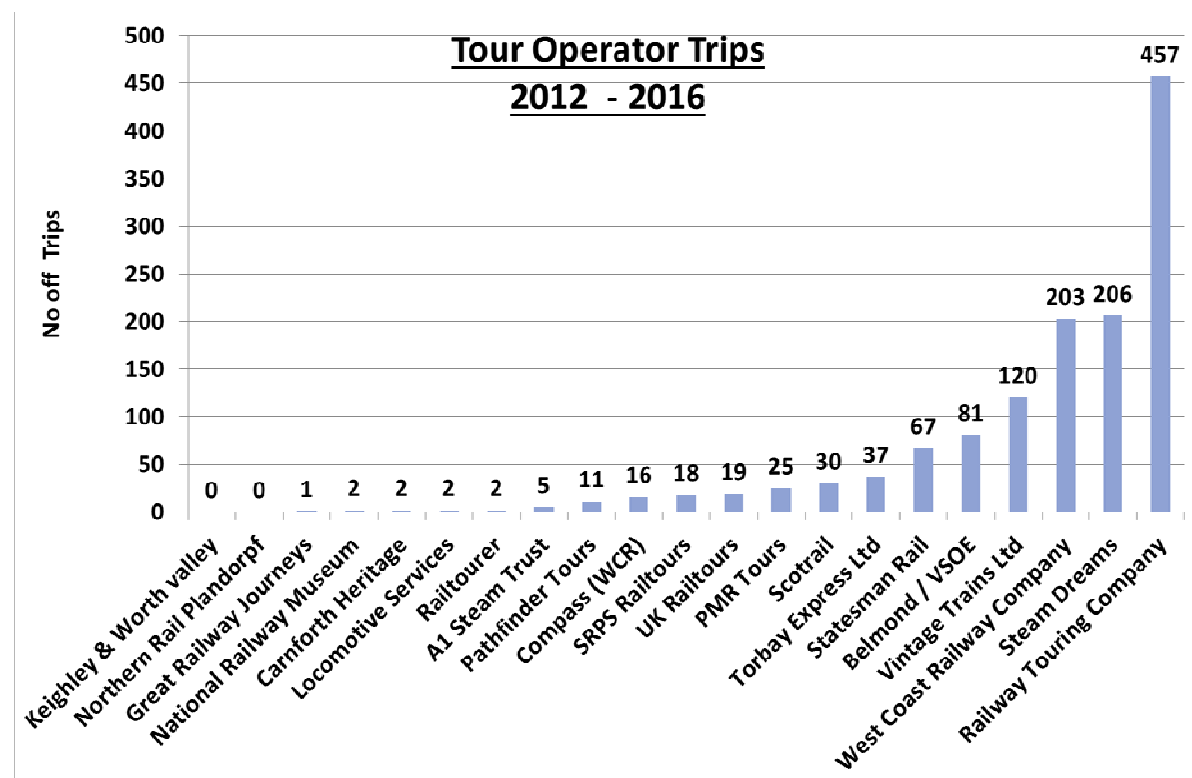
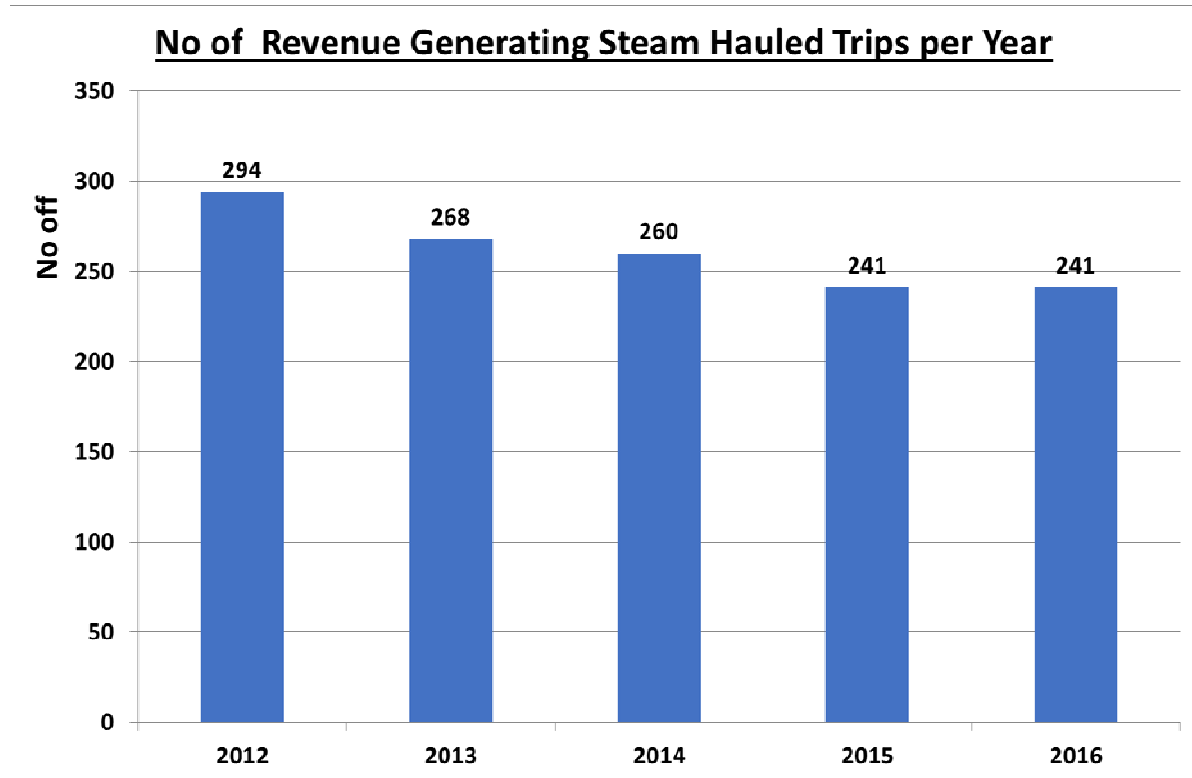
Attendees from ASTT were Richard Coleby, Dave Gibson, Paul Hibberd, Iain Jack, Owen Jordan, Jamie Keyte and Vivian Vykers. Guests on the day were Richard Gretton from the Merchant Navy Preservation Society (owners of Clan Line) and Richard Corser from DB-Schenker who joined us for our review of the SWOT analysis and gave a presentation in the afternoon.

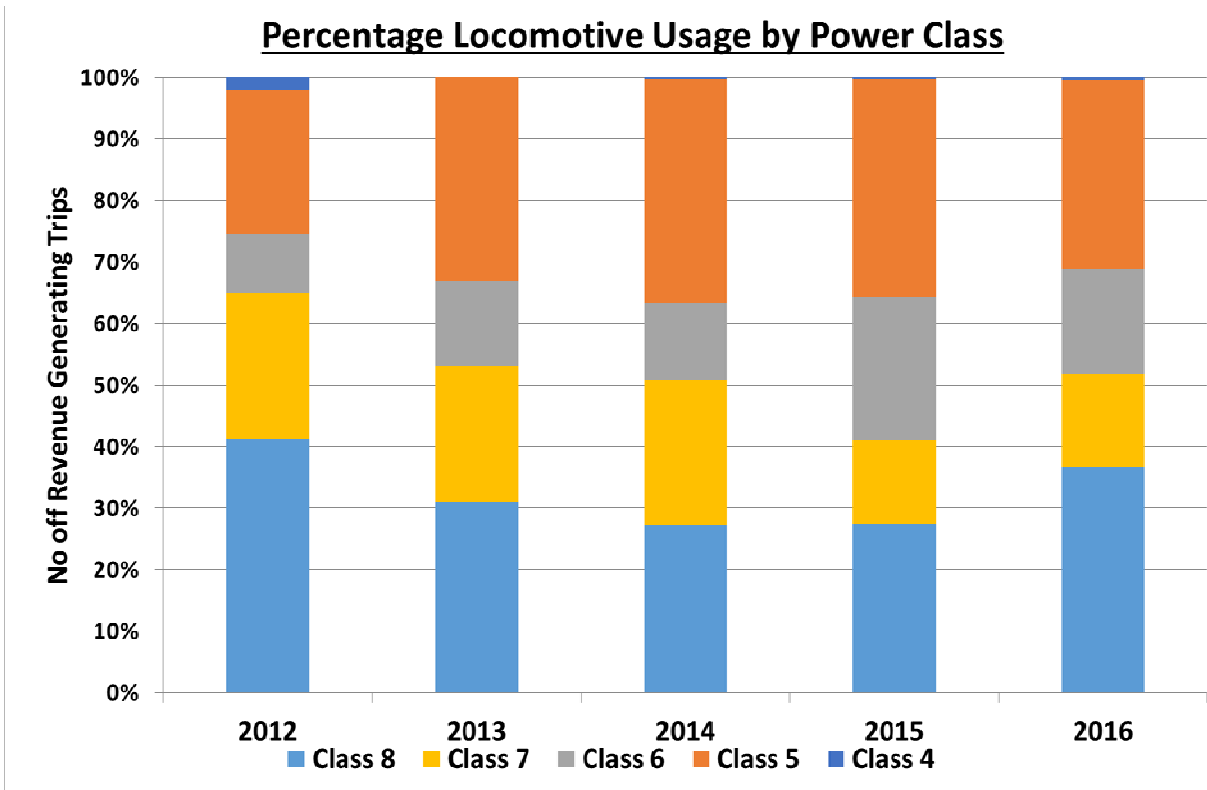
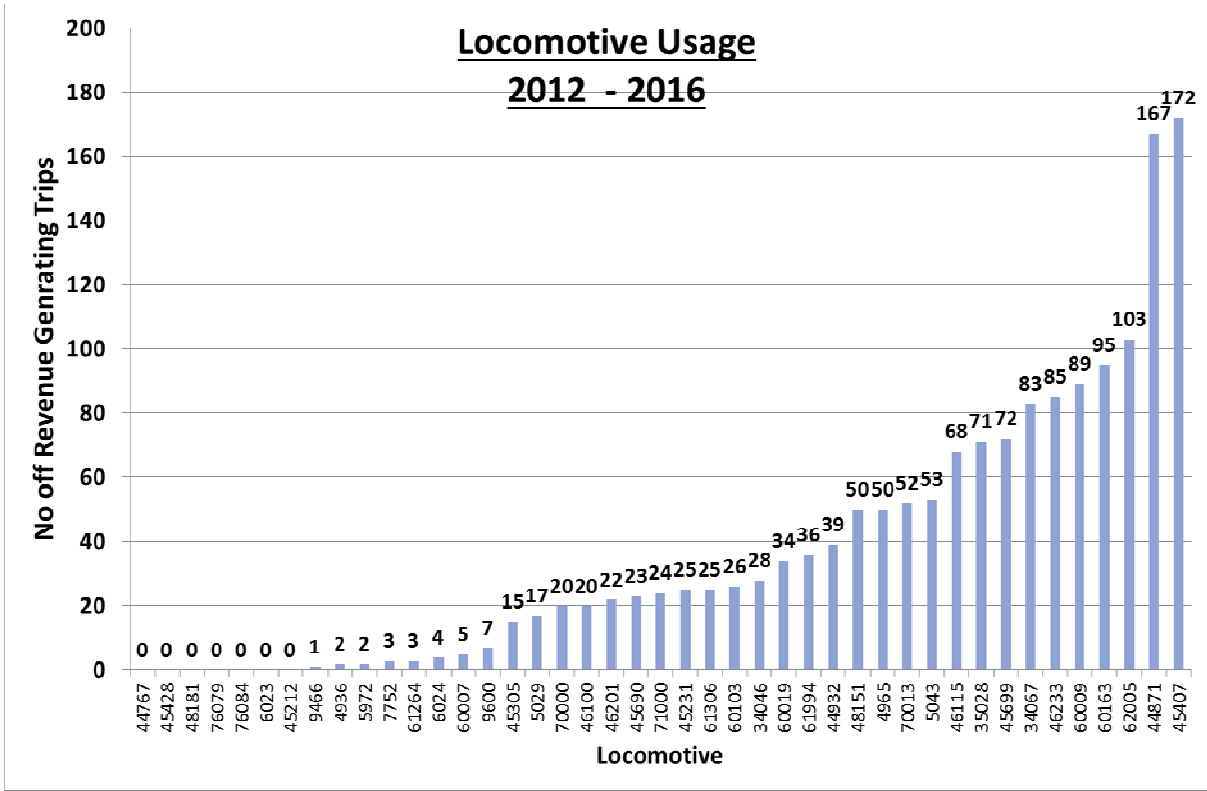
3. Presentations

The workshop focussed on the issues facing mainline steam in the UK. After a welcome by Andy Packham of the Railway Research and Education Centre, we started with a presentation using research that Mike Horne had carried out on the numbers of trains operated and usage of locomotives over the last 5 years, using data from the "UK Steam Info" website:-

<http://www.uksteam.info/tours/index.htm> - (I gave the presentation as Mike was on a pre-booked holiday). This was followed by a presentation by Paul Hibberd on the financial implications of running steam on the mainline. In the afternoon, Richard Corser presented his views on running steam on the mainline, following which I gave a presentation on the costs of New-Build Steam.

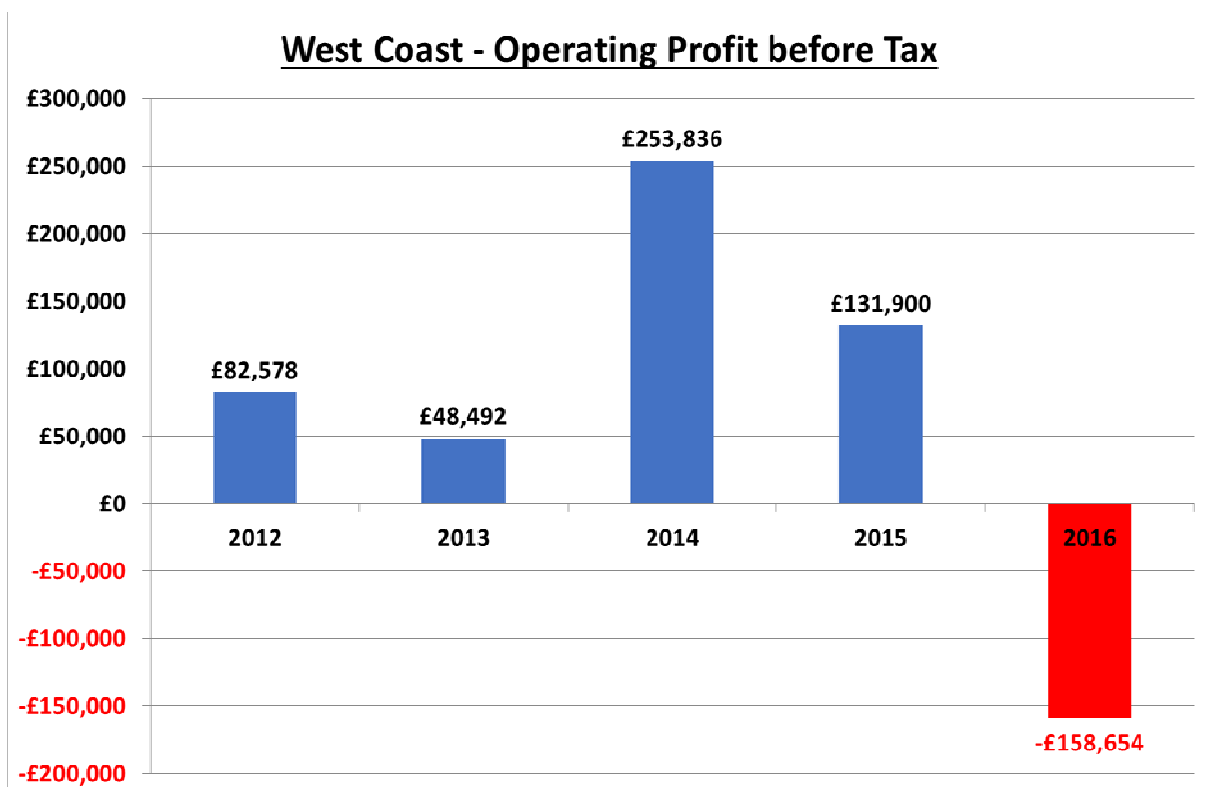
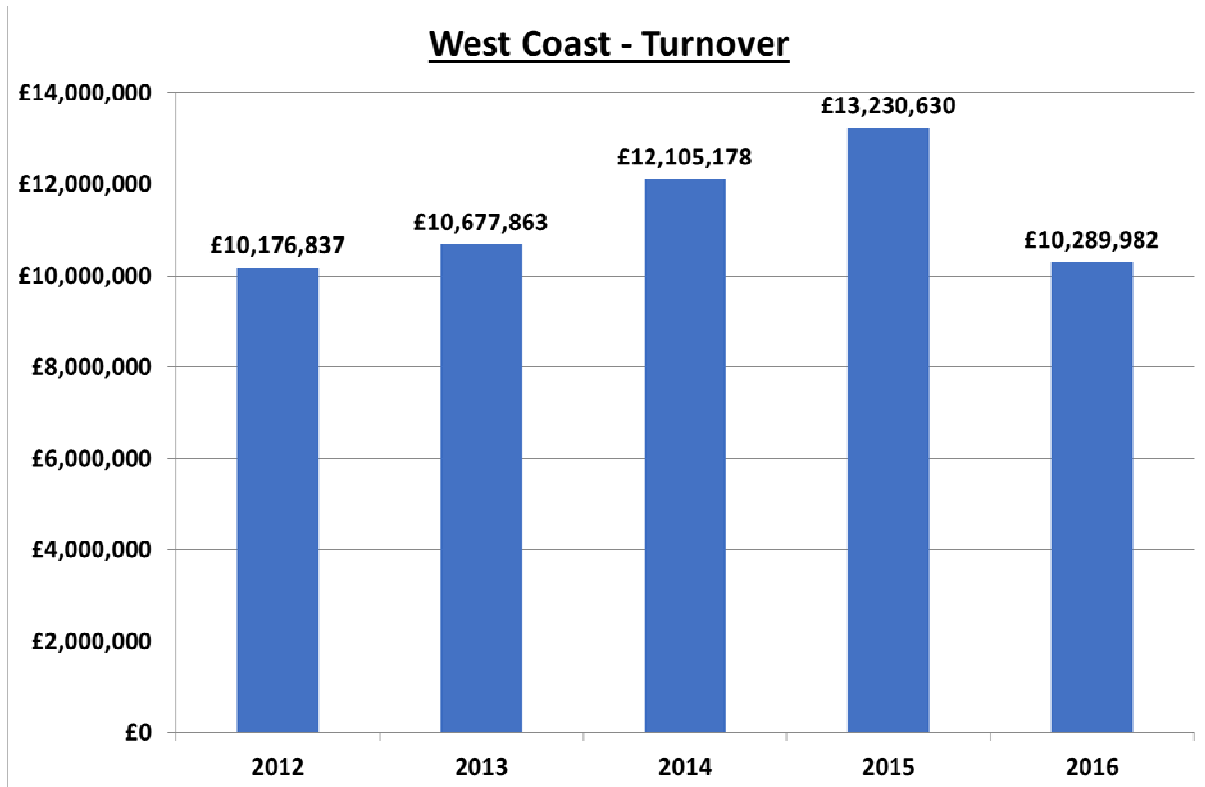
4. Data obtained by Mike Horne from the "UK Steam Info" website



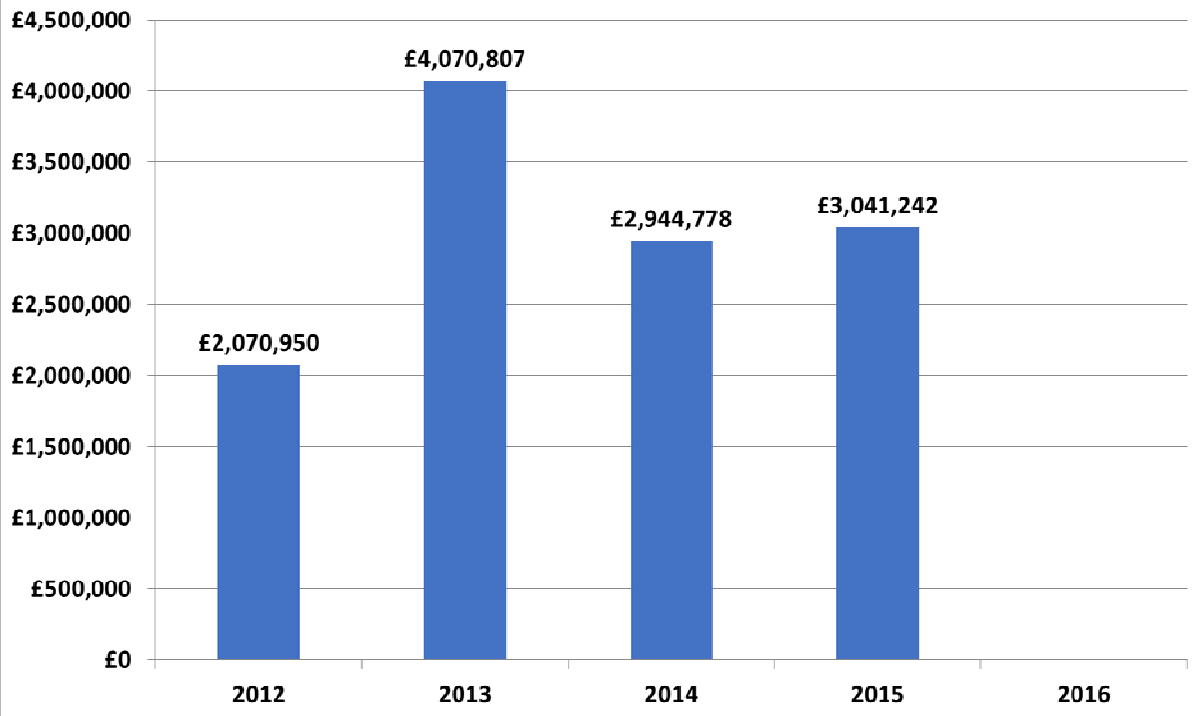


5. Paul Hibberd - Finances of Steam Operations

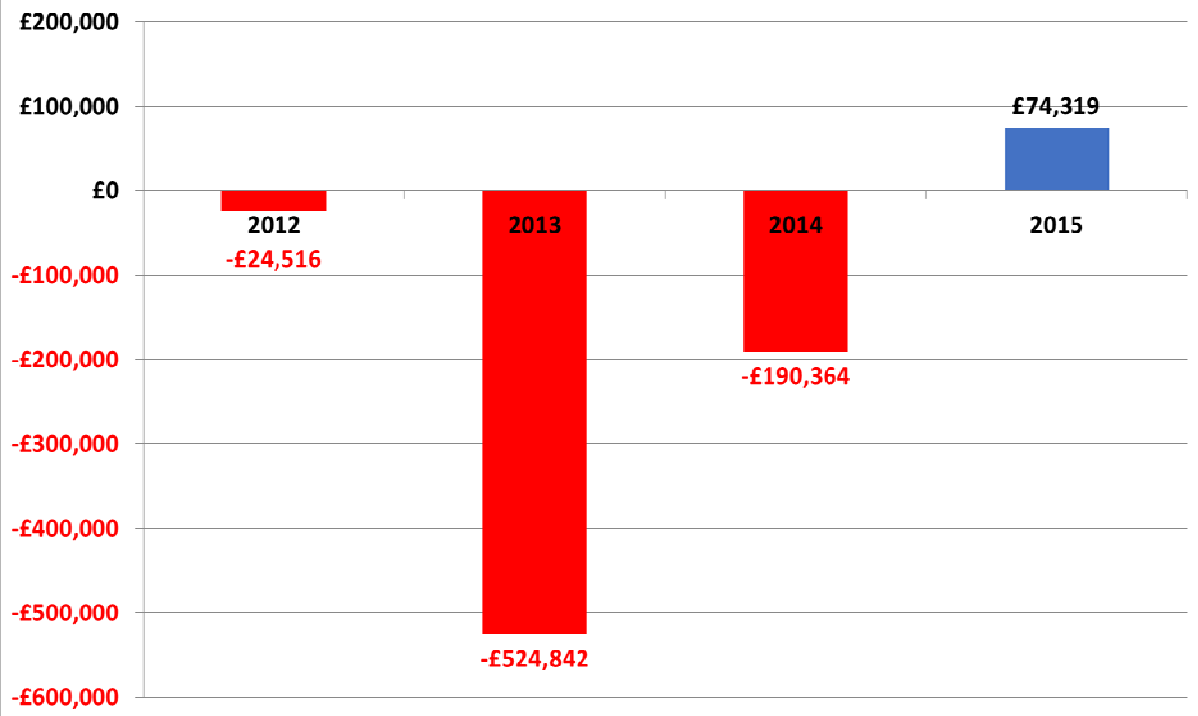
Paul Hibberd summarised the financial position of steam operations on Network Rail – those of both Train Operators and Locomotive Owners. His presentation was based on data in the public domain from the Companies House website <https://beta.companieshouse.gov.uk/>. Some of the diagrams follow :



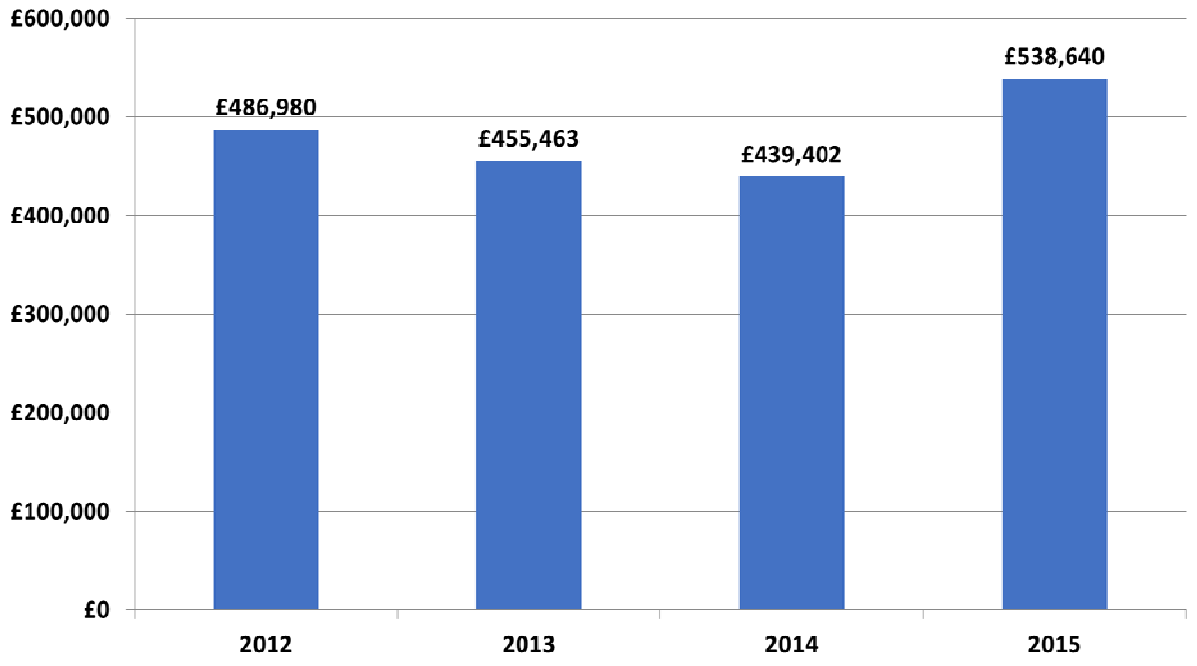
Steam Dreams - Turnover



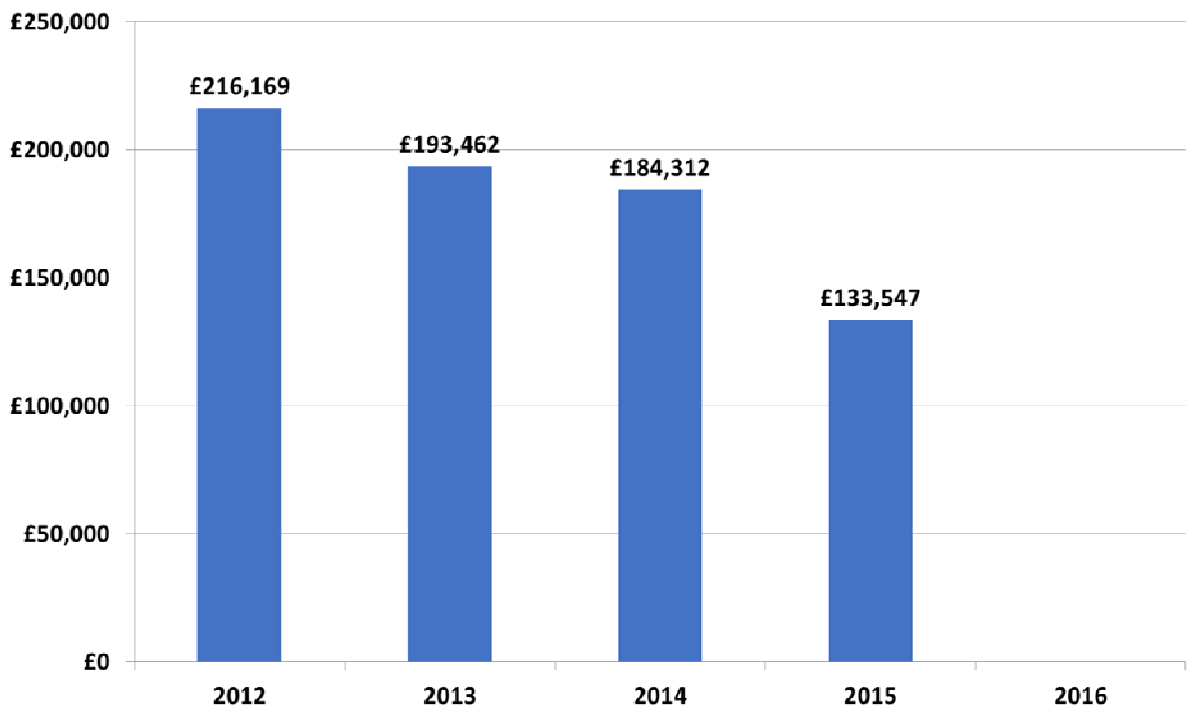
Steam Dreams - Profit

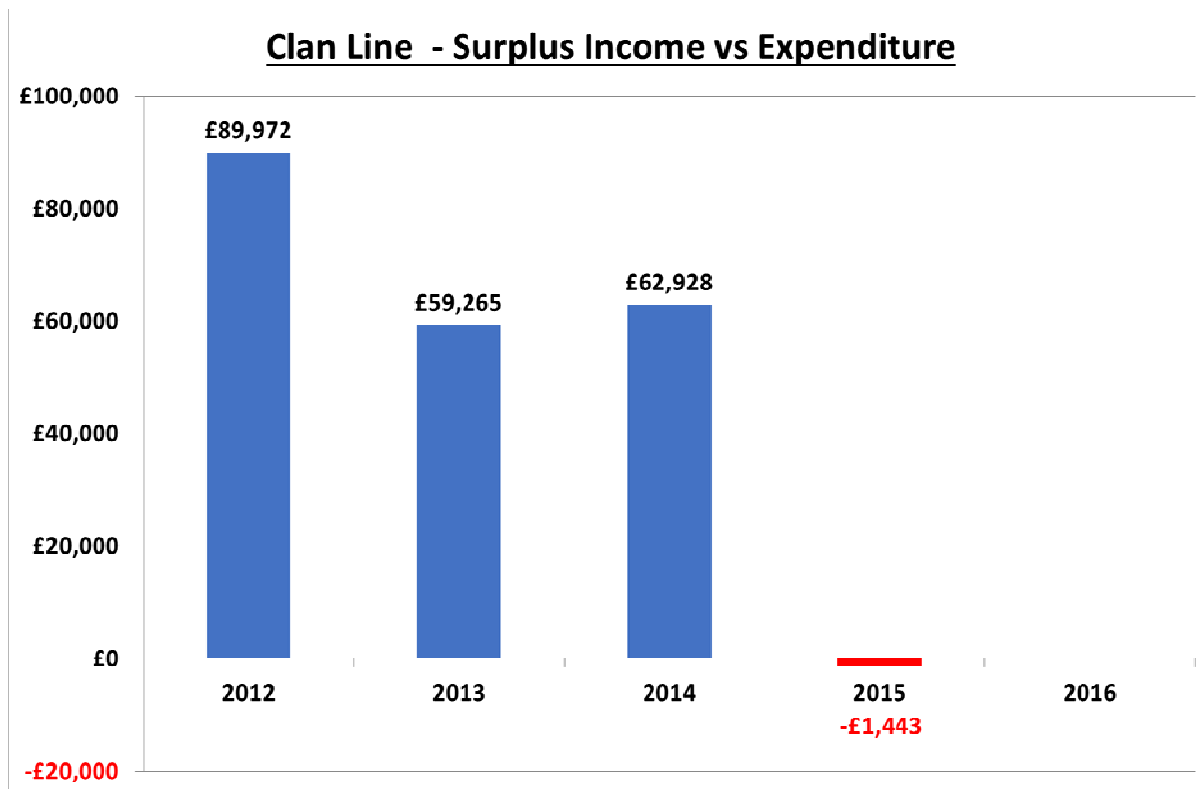


Riley & Son (E) Ltd
Annual Profits



Clan Line - Income





6. SWOT Analysis

With this background, attendees broke up into two groups to undertake the **SWOT** analysis. [The SWOT Process was described in the meeting invitation sent out on 25th April, a copy of which is appended to these notes.]

The analysis generated 141 “post-it” notes (thanks to Owen Jordan for typing them up and putting them on an Excel spreadsheet). I have summarised and listed *some* of the points raised. [In my day-job we would have spent more time analysing the bullet points than we had available.]

Internal to the Steam Movement, **Strengths** were:-

- Enthusiasm
- Passion
- Volunteers

And **Weaknesses** were:-

- Insufficient income to cover costs
- Aging Locomotive Fleet
- Aging Support Crews
- Performance
- Range with watering
- Resistance to New Thinking
- Shortage of skilled Professional Engineers

External to the Steam Movement, **Opportunities** were:-

- Train Operating Companies committed to operating steam
- Generation of positive publicity for the railway industry
- Opportunity to grow the market beyond the 'enthusiast' by offering a special day out
- Plandampf's
- Repeat itineraries
- Fast run to a scenic area or attraction and a fast return

And **Threats** were:-

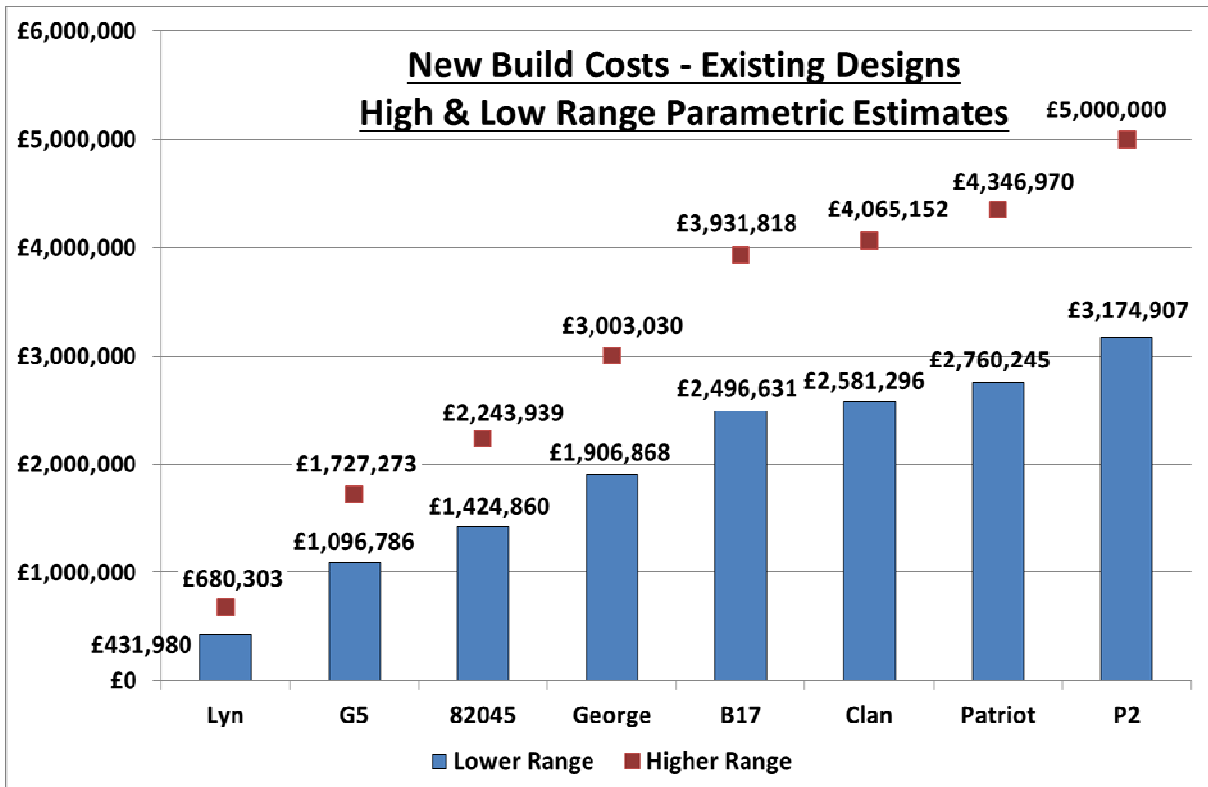
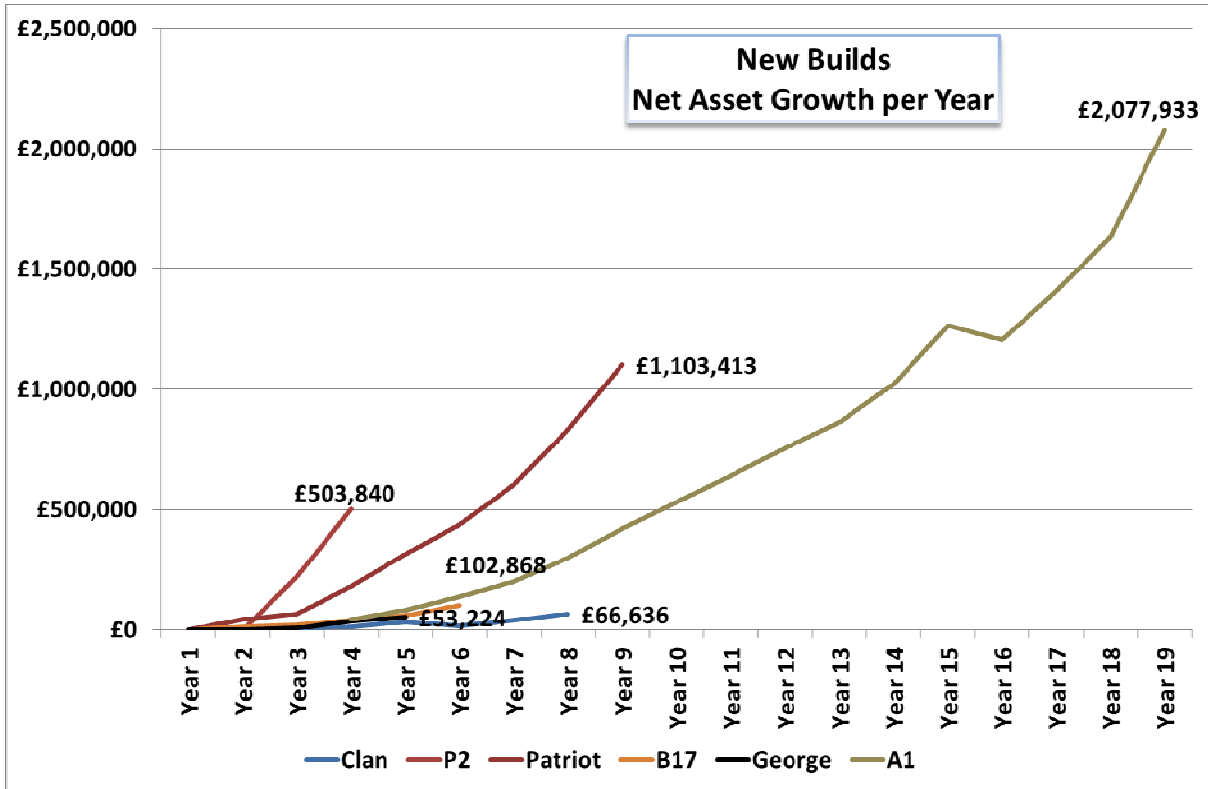
- Lack of quality coaching stock
- Retention toilets compulsory in 2019
- Derogation to use Mk1 coaches ends in 2023
- Aging demographic of steam enthusiasts
- Recruiting and training footplate crew
- Decreasing track capacity for charters as rail traffic grows
- Changing regulation
- Increasing costs of overhauls for locomotives and coaches
- The Digital Railway

Following lunch, Richard Corser offered insights into running steam on the mainline, covering a wide variety of topics:

- The Digital Railway
- The Passenger experience,
- Annual growth of 3% to 4% in rail traffic squeezing capacity
- Locomotive and coach overhaul becoming more expensive
- Locomotive maintenance must follow 21st century processes
- The need for toilet retention tanks to be fitted on Mk1, Mk2 and Mk3 stock by 2019
- Crashworthiness derogation on Mk1 stock ending in 2023
- Need to train new drivers and firemen
- Steam must make a financial return
- DB Cargo's role as a £320m turnover company supporting niche market
- Careful planning required to coordinate all resources for a successful trip

The one issue which surprised us all was that end of life of coaching stock is probably the biggest short risk to mainline steam – unless coaching stock owners invest in upgrades, then mainline steam will end.

After Richard Corser's presentation, I gave a presentation on the costs of New-Build Steam and looked at the rate of fundraising for a number of New Build Projects – from this it was possible to see which ones are thriving and will succeed and those that need to raise their game if they are to fulfil their dreams.



I also talked about the costs of developing a Second Generation Steam Locomotive (SGS) using information from the 5AT Feasibility Study, which estimated the cost of new SGS design as £10,000,000 versus £5,000,000 for the most expensive new-build “re-creation” project (P2).

We then finished off the day with a discussion on what we had learnt and conclusions were:-

- The locomotive pool in 2017 amounts to about 20 locomotives, whose ages vary from sixty to eighty years plus, with a further 23 that have run on the mainline and either under overhaul or stored out of use.
- The hauled stock amounts to a pool of about 120 Mk1's mostly TSO's, whose age is from fifty five to sixty five years, not fitted with retention toilets and with electrical systems that are obsolete.
- Disparity of capability of the locomotives to fit into existing service patterns on the main lines, where main line speeds are generally 90-125 mph, and relief lines dominated by “all-stations” multiple unit stock with modest overall average speeds but much higher acceleration than a steam locomotive with 10+ coaches.
- Steam's performance limitations and path availability have led to extended journey times, particularly in trips from London, which has meant that some destinations take too long to reach for an acceptable day out.
- Need to attract a new generation of customers with different expectations of a day out with steam, as age takes its toll of the enthusiasts who remember the ‘golden age of steam’.
- The general speed limits of 60/75mph on heritage steam locomotives was examined in the light of Tornado's derogation to run at 90/100mph and the consequences in terms of fuel and water use, and locomotive wear and tear. Most of the locomotives in traffic were considered to be unsuitable for long term running at speeds above the current 75 limit.
- Profitability of the business appeared to be low, with few if any of the businesses or organisations involved looking beyond the immediate covering of short term costs and making a contribution to major works overhauls of locomotives. Half of the locomotive pool for mainline use is currently unavailable under overhaul.
- For an engine to cover its overhaul costs the base line for operations appears to be a minimum of about 20-25 main line runs per locomotive per year.
- The costs of locomotive overhaul are increasing each year.
- A professional approach needs to be adapted to locomotive maintenance and Fitness to Run checks, using documented processes.
- The short term threat to mainline steam is Mk1 coaching stock, which if not modified with retention toilets will be banned from 2019 and the existing derogation for crashworthiness will end in 2023.

[**Note:** subsequent to the workshop, *Steam Railway* magazine published an interview with Network Rail chairman, Sir Peter Hendry, who confirmed that Belmond British Pullman (was VSOE Orient Express) and Locomotive Services are actively dealing with the coaching stock problem].

- In the medium to long term, the prognosis is that, there is likely to be a consolidation of the 'pool' of locomotives with the survivors being those owned by organisations that adopt a professional approach to running on the mainline, consistently support the operation of their engine, and recruit a new younger generations of supporters. All these are steps necessary, so that they can continue to generate income to cover the overhaul costs.

7. Future Events

Following on from this workshop we are planning a seminar in the late autumn on how new certification requirements will effect new build steam projects. The Office of the Rail Regulator and the Railway Safety Standards Board are willing to attend. We will also be inviting representatives from all new-build projects that have an ambition to run on the mainline.

Finally – Chris Newman has been working on the programme for the October conference, this is looking to be an interesting event. Details will be available shortly and I hope that many of our members can attend.

John Hind

08/06/2017

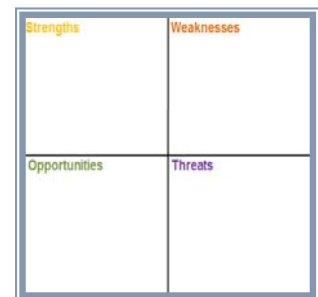
Appendix: What is a SWOT Analysis? A guide for anyone not familiar with the technique

- Used in Strategy Building to identify:-
 - **Strengths** and **Weaknesses** internal to an organisation
 - **Opportunities** and **Threats** external to an organisation

[‘So it is said that if you know your enemies and know yourself, you can win a hundred battles without a single loss. If you only know yourself, but not your opponent, you may win or may lose. If you know neither yourself nor your enemy, you will always endanger yourself’.
From “The Art of War” by Sun Tzu]

How is it used

- Wall charts printed out with 4 quadrants (as illustrated).
- The workshop splits up into four teams (one wall chart for each team).
- Each team member writes down his views on post-it notes and sticks them into the relevant quadrants of the chart.
- Each team reviews each quadrant looking for common themes, and groups them together.
- Teams appoint a spokesman, who presents the team’s views back to the whole group.
- Common themes are collected on one chart
- Discussions are held on the conclusions.



Benefits

- Gives everyone a say.
- Collects thoughts in a structured way.
- Structures discussions.
- Common themes identified.
- Identifies **Key Strategic Issues** as the teams see them.
- Brings the Steam Age out of **the Dark Ages!**

ASTT’s Workshop SWOT Analysis

- **Topic:** Can New Build Steam keep steam running on Network Rail into the 21st Century?
- **Strengths and Weaknesses**
 - Our view of
 - Locomotive Owners and Operators
 - Locomotives
 - Tour Operators/Promoters
- **Opportunities and Threats**
 - Our view of
 - Customers - who pay to ride on the trains
 - Office of the Rail Regulator
 - Network Rail
 - Train Operating Companies
 - Approvals Process.

- If Locomotive Owners and Tour Operators were to do a SWOT they would probably show different issues. (To them locomotives ***might not be the problem***).