



GREEN IT: THE GLOBAL BENCHMARK

A REPORT ON SUSTAINABLE IT IN THE USA, UK, AUSTRALIA AND INDIA

This paper contains the findings of the first ever multi-country benchmark to determine the maturity of Green IT practices and technologies in end user organizations. It utilizes a unique methodology to quantify Green IT implementation across the many different components and industry sectors to provide detailed insights. Green IT is a large and complex subject, and increasingly important as we understand the role IT can take in enabling sustainable business practices.

FOREWORD

BY JONATHON PORRITT, FOUNDER DIRECTOR, FORUM FOR THE FUTURE

Emissions of greenhouse gases from aviation are rising fast. Emissions from shipping are rising fast. Emissions from the manufacture of cement are rising fast. And emissions from the use of IT are rising fast.

But there's a difference. With some justification, the IT industry has pointed out that it can more than offset the negative consequences of its own growth in emissions by enabling other industries to reduce their emissions. Indeed, the much-quoted "SMART 2020" Report in 2008 (on behalf of the Global e-Sustainability Initiative) set this 'offset factor' at a multiple of five. In other words, reductions achieved through the use of Green IT in other key economic sectors would be five times greater than the growth in emissions from the IT sector itself.

That's quite something given that the growth in those emissions from IT are projected to increase from 3% of total global emissions in 2009 to a whopping 6% by 2020.

This Report from Fujitsu provides an incredibly helpful, euphoria-dispelling reality check. It doesn't beat around the bush: given current levels of awareness about Green IT, the likelihood of the IT industry achieving that kind of offset factor, through Green IT by 2020, is zero.

Surveying more than 600 Chief Information Officers and Senior IT Managers in eight different sectors in the USA, UK, Australia and India, Fujitsu has honed the methodology it first used in Australia last year to provide some fascinating data on the five key areas of Green IT (see page 6). Its conclusion is simple: "globally, overall Green IT maturity is low".

Interestingly, metrics is the weakest area of all. The baseline here is pretty primitive: in most organisations surveyed, the bill for energy consumed through the use of IT in that organisation is only rarely included in the IT department's own operational budget. And if IT managers don't know how much energy they themselves are consuming, they won't know the scale of the emissions they are responsible for, so they will be of little use helping colleagues elsewhere in the organisation to deploy IT to reduce overall emissions.

And it's that Enablement Index that really stands out for me. Getting really good at enabling organisations at the micro-level to reduce their energy consumption and carbon footprint through Green IT is a precondition for getting really good at it at the macro-level.

Governments all around the world are assuming that Green IT will play that enabling, emissions-reducing role at scale. But this Report tells us those assumptions are not just ill-founded at the moment, but potentially lethal if they are allowed to persist.

For policy-makers the world over, the message is stark: wake up and smell that gap between potential and reality.



Jonathon Porritt, Founder Director, Forum for the Future

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EXECUTIVE SUMMARY

This paper examines the maturity of Green IT in large IT-using organizations in the United States of America, the United Kingdom, Australia and India. It is based on detailed research of over 630 CIOs and senior IT managers across those four countries. The research methodology allows the implementation of Green IT to be quantified and compared, between countries and between industry sectors.

The overall Green IT Maturity level is low and the index across all industries in all countries is 56.4 (out of 100). The most significant finding is the relative lack of maturity of Green IT policies, practices and technologies – in every industry sector in every country.

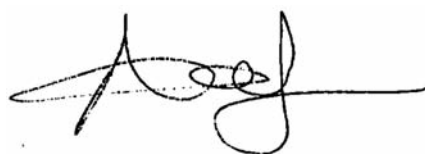
The best performing country of the four surveyed is the United Kingdom, with an overall Green IT Readiness Index of 61.0. The United States of America (58.6) rates slightly behind the United Kingdom, a function of the relative sophistication of IT usage in that country. Followed by Australia (53.9) (let down by its low level of measurement) and India (52.0) (where end user Green IT is not widely implemented).

The best performing industry sector is IT/Communications/Media. The relativities between industry sectors remain remarkably consistent across different countries, indicating that Green IT performance is at least as much a function of industry sector as it is of country.

The two operational components of Green IT perform best: End User (61.0) and Enterprise (60.1). These are the components under the control of the IT department, where the techniques and technologies of Green IT are best known, are most noticeable and most advanced. Metrics is the area that consistently scores the lowest – few organizations are good at measuring the effectiveness of Green IT. Enablement – the use of IT to improve performance and reduce the carbon footprint outside of the IT function – also rates low, an indication of the inward focus of many Green IT initiatives.

There is consistently very low performance in the metrics that enable Green IT to be properly measured and monitored and environmentally unsound IT procurement and disposal practices remain widespread. Even in the data center, where the level of IT sophistication is the greatest and where higher energy costs are increasingly forcing changes to operational practices. The IT power bill is not well understood and rarely included in the IT operational budget.

Transforming intent into action requires a Green IT champion. In all countries the appointment of a specific leader to the Green IT role was low. More accountability was evident in the United States of America (45%) and the United Kingdom (44.1%), while in Australia it is 37.8% and in India it is less than one third (31.7%). Leadership, accountability and integration are the ‘must have’ Green IT ingredients for success.



Alison O'Flynn, Global Executive Director Sustainability

METHODOLOGY

This research uses the methodology developed by Connection Research and RMIT University, Melbourne, Australia. The results allow the development of an overall Green IT Readiness Index for IT-using organizations in any industry or country.

The methodology allows separate indices to be calculated for each of five key areas of Green IT:

- Green IT Lifecycle (Procurement and Disposal)
- End User IT Efficiencies
- Enterprise and Data Center IT Efficiencies
- Usage of IT as a Low-Carbon Enabler
- Green IT Measurement and Monitoring

These areas are outlined in detail in The Green IT Framework on page 8 of this report. The data was gathered through an online survey of organizations in most industry sectors across four countries, which

asked respondents at CIO and IT Manager level over 80 questions about their Green IT policies, behavior and technologies in each area. Surveys were conducted in April 2010 (Australia), May 2010 (India), and July-August 2010 (United Kingdom and United State of America).

Most questions in the online survey were asked on a 0-5 scale corresponding to a modified version of the Capability Maturity Model (CMM), where 0 = no action and 5 = best practice. This methodology ensures quantitative comparisons between respondents (see page 9). The result is what we believe to be the most comprehensive analysis undertaken of the relative maturity of Green IT in a number of important global markets.

A total of 638 responses across the four countries are included in this research and a breakdown of respondent numbers by country and industry sector is shown in Table 1 below.

TABLE 1: RESPONDENTS BY COUNTRY AND INDUSTRY SECTOR					
INDUSTRY SECTOR	USA	UK	AUSTRALIA	INDIA	TOTAL
Manufacturing	34	28	17	9	88
Utilities	10	–	10	–	22
Wholesale / Retail / Logistics	37	30	15	–	82
IT / Comms / Media	51	34	13	10	108
Government	29	22	42	–	93
Professional & Other Services	31	33	12	–	76
Finance / Business Services	27	13	27	15	82
Health / Education / Welfare	29	27	27	–	83
Other	–	–	–	6	6
Total	248	187	163	40	638

Note that the Indian survey excluded government organizations, and was limited to large companies in the Mumbai area, representative of Indian companies who operate globally and who have IT operations similar to those in more advanced economies.

KEY FINDINGS

The paper provides a number of valuable insights into the comparative Green IT performance of organizations in each of the four countries, and between industry sectors within countries. The most significant finding is the relative lack of maturity of Green IT policies, practices and technologies – in every industry sector in every country. While some industries and some countries do better than others, the overall performance can be considered low.

KEY FINDING 1: GLOBALLY, OVERALL GREEN IT MATURITY IS LOW

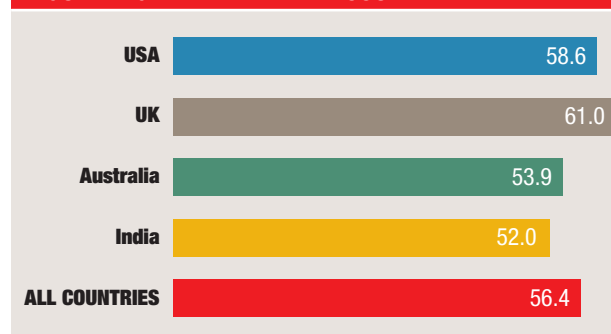
The overall Green IT Maturity level is low and the index across all industries in all countries is 56.4 (out of 100). In some components of the index in some countries it drops into the low 40s, indicating a profound lack of awareness of many of the basics of Green IT.

The findings show that Green IT practices and technologies in most organizations are often quite rudimentary leaving substantial room for improvement with comparatively little effort.

KEY FINDING 2: THE LEADING COUNTRY IS THE UNITED KINGDOM

The best performing country of the four surveyed is the United Kingdom (UK), with an overall Green IT Index of 61.0 (Figure 1). The UK has the most stringent carbon reduction and carbon reporting regimen of any of the countries, and awareness of Green IT is higher than it is in the other countries.

FIGURE 1: GREEN IT INDEX BY COUNTRY

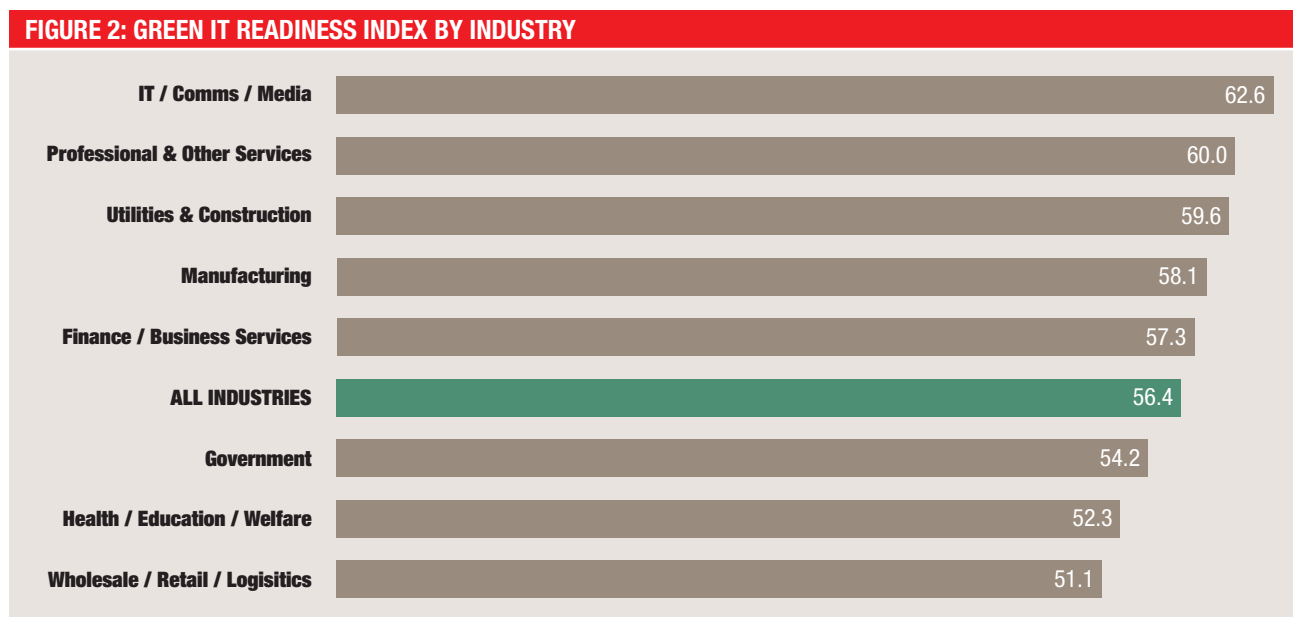


The United States of America (USA) rates second, a function of the relative sophistication of IT usage in that country, followed by Australia (let down by its low levels of measurement) and India (where end user Green IT is not widely implemented).

KEY FINDING 3: IT/COMMUNICATIONS/MEDIA IS THE BEST PERFORMING INDUSTRY SECTOR

The Green IT Readiness Index by Industry (Figure 2) shows the relative performance of each industry sector, and compares them to the overall Green IT Readiness Index. There are significant differences by industry sector, with the best performing industry being IT/Communications/Media and the least performing Wholesale/ Retail/Logistics.

The relativities between industry sectors remain remarkably consistent across different countries with the exception of Government, which is above average in Australia but below average in all other countries. This indicates that Green IT performance is at least as much a function of industry sector as it is of country – a bank in the USA, for example, is more likely to be similar to a bank in India than it is to a manufacturing company in the USA.

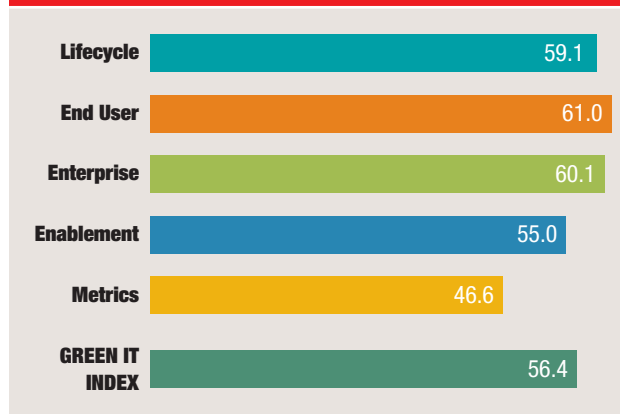


KEY FINDING 4: OPERATIONAL GREEN IT PERFORMS BEST, METRICS THE AREA REQUIRING MOST IMPROVEMENT

The two Green IT operational index components perform best: End User (61.0) and Enterprise (60.1). These are the components under the control of the IT department, where the techniques and technologies of Green IT are best known, most noticeable and most advanced.

Metrics is the area that consistently scores the lowest – few organizations performed well at measuring the effectiveness of Green IT. In Australia, for example, more than two thirds of organizations don't understand IT's power consumption. The situation is only slightly improved in other countries.

FIGURE 3: GREEN IT READINESS INDEX BY INDEX COMPONENT



Enablement – the use of IT to improve performance and reduce the carbon footprint outside of the IT function – also rates low. This is particularly concerning; given the immense benefits IT can deliver to society. The low rating is an indication of the inward focus of many Green IT initiatives – most organizations need to work harder on harnessing IT for wider sustainability activities.

THE GREEN IT FRAMEWORK

Green IT means many things to different people. There are too many definitions, and not enough definition. This lack of clarity has made it difficult to measure the effectiveness or the extent of an organization’s implementation of Green IT because, in the same way that ‘you can’t manage what you can’t measure’; equally ‘you can’t measure what you can’t define’.

The Green IT Framework is a way of defining Green IT and understanding its many components. The Framework defines four general areas, or “pillars”, of Green IT: Lifecycle, End User, Enterprise, and Enablement. It then breaks each of these down further. Lifecycle, for example, comprise the three components of Procurement, Recycle and Reuse, and Disposal. Across these four pillars are five “actions”: Attitude, Policy, Practice, Technology and Metrics.

Once Green IT is broken into its components, it becomes possible to measure each in turn. This is done using the Capability Maturity Model (CMM), a standardized way of quantifying the maturity of a business process. The concept of the CMM is often used in the IT industry to describe the level of implementation of various systems. First developed by Watts Humphrey at Carnegie Mellon University, a CMM defines five levels of maturity in the use of any system or technology.

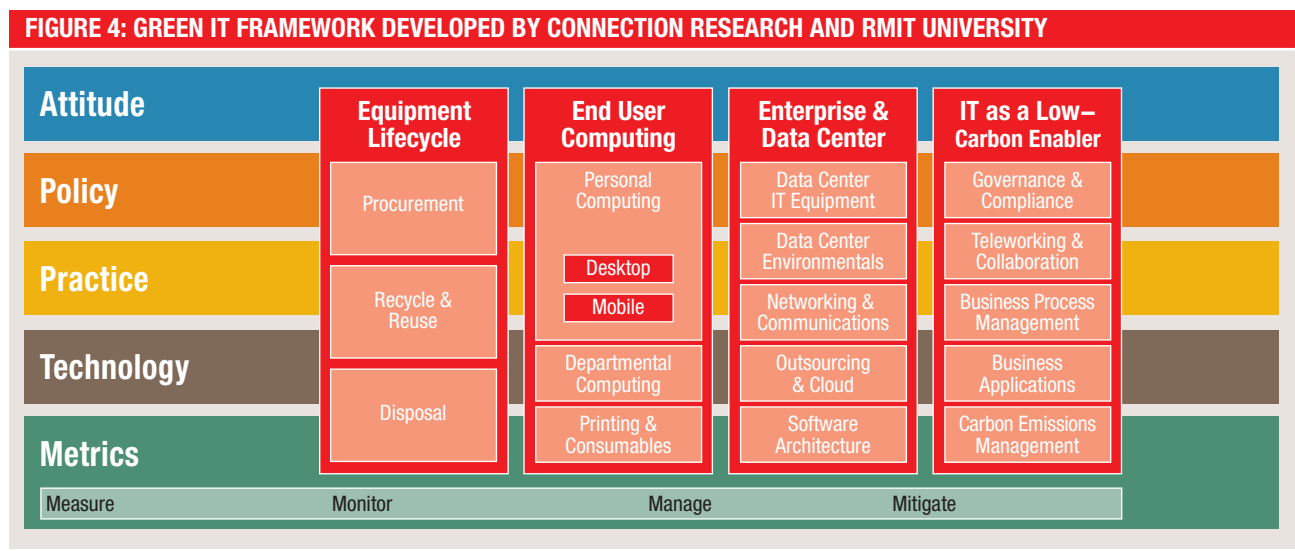
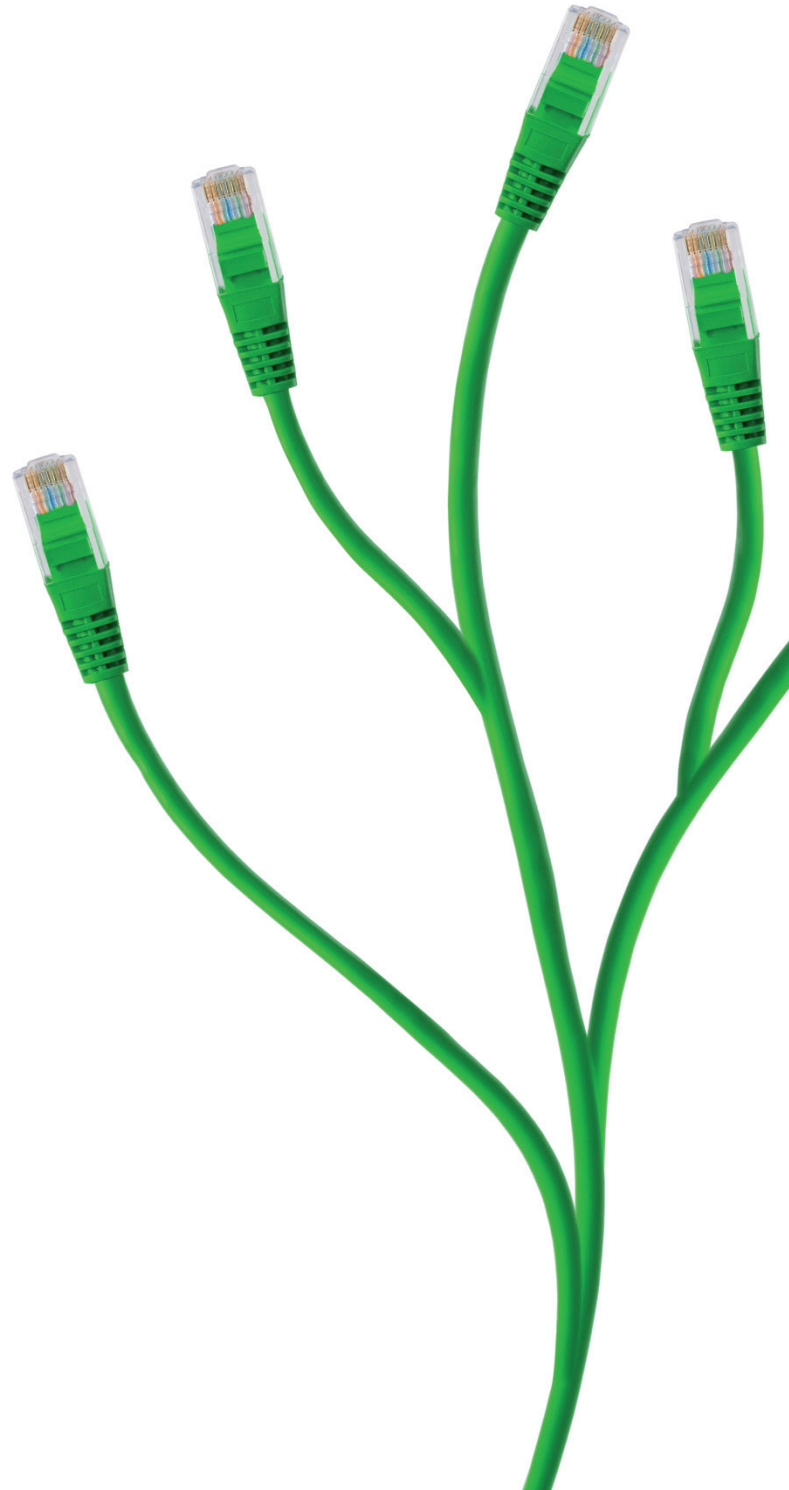


FIGURE 5: CAPABILITY MATURITY MODEL

0 No Intention	Never thought about it, no awareness
1 Initial	Some awareness, considered but no implementation
2 Replicable	Some ad hoc implementation, but no strategy
3 Defined	Formal programs have been defined, but implementation is immature
4 Managed	Methodical implementation of programs, with adequate measurement and management
5 Optimized	All activities are monitored and managed for optimal performance. "Best practice"

The survey asked questions about every aspect of Green IT, as defined by the Framework, and quantified the responses according to the Capability Maturity Model. Applying the five-level CMM across each of the five aspects of Green IT provides a useful methodology for determining the maturity of an organization's Green IT strategic performance.

Each question in the survey was constructed to rate the response on a CMM scale from 0 to 5. All relevant questions in each of the four pillars were then aggregated and weighted to deliver a score (out of 100) for that pillar. A similar process was followed for all the metrics questions, with metrics then being treated, for the purposes of analysis, as a fifth pillar. This methodology delivers five index components, which were then combined to determine the overall Green IT Index.

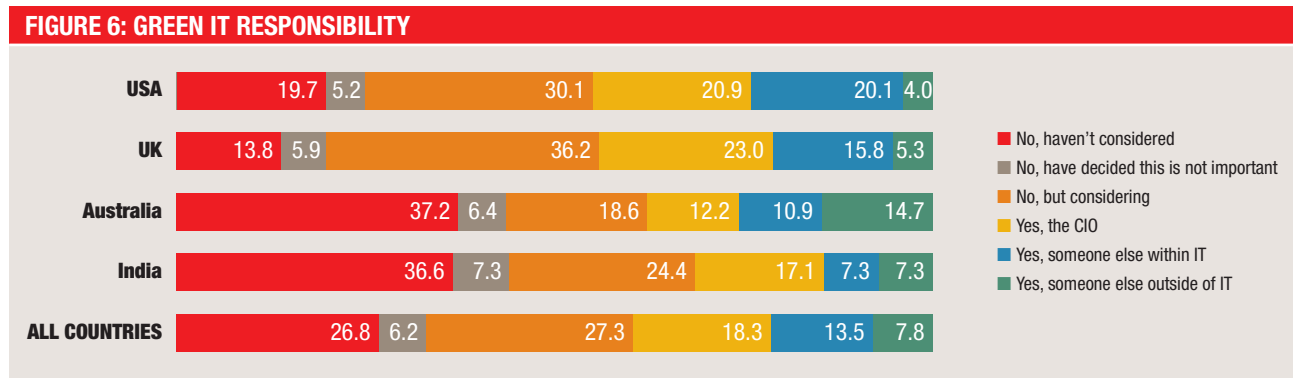


WHO IS RESPONSIBLE FOR GREEN IT?

Green IT needs a champion who is responsible for Green IT technologies and policies to achieve truly sustainable outcomes. However in all countries surveyed less than half of respondents have appointed a specific leader to the Green IT role. In the USA and the UK, the figure is almost half (45.0% and 44.1% respectively), while in Australia it is a little lower (37.8%) and in India it is less than one third (31.7%).

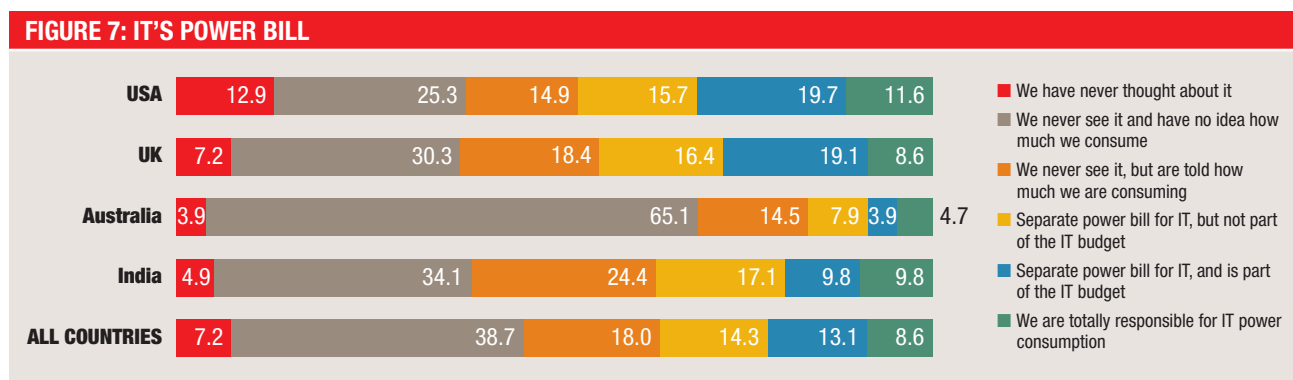
Most often that person is the CIO or someone else in the IT department. Only in Australia is someone outside of IT often responsible for Green IT, and even there it is in only 13.1% of cases.

Green IT needs coordination, because so many different areas of the organization are involved. In organizations lacking an individual with responsibility for Green IT, it is simply not possible to achieve the necessary level of cooperation between these disparate groups. Business sponsorship of Green IT is important, because it provides a broader perspective and is more likely to consider IT's important role as a low carbon enabler.

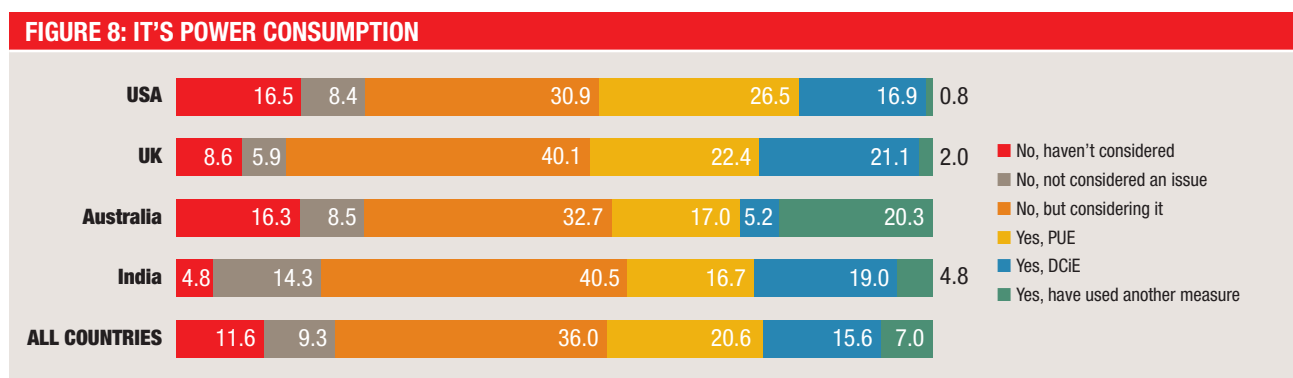


MEASURING THE POWER CONSUMPTION OF IT

In most countries surveyed, IT's power bill is only rarely included in the IT department's operational budget. Even in the USA, the country with the highest IT power consumption visibility, only around half of the respondents know how much power IT is consuming. More than two thirds of Australian respondents have no visibility on how much power their IT function consumes.



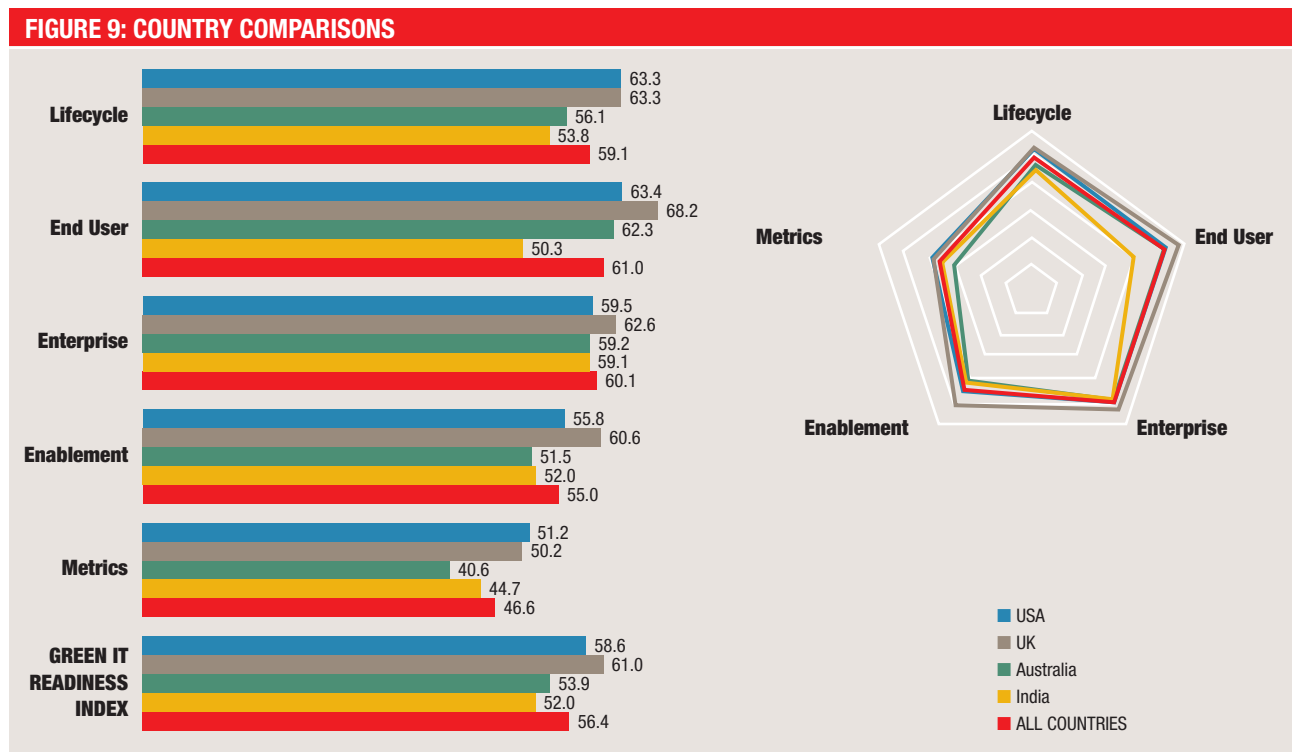
In all countries nearly half of the organizations surveyed have attempted to measure or calculate IT's power consumption in the data centre, usually with a measure such as PUE (Power Usage Effectiveness) or its close relative DCiE (Data Center Infrastructure Efficiency). Those who have used "other measures" usually perform rough calculations based on the power bill.



GREEN IT READINESS INDICES BY COUNTRY AND INDEX COMPONENT

The country with the highest Green IT Readiness Index is the UK (61.0) and the lowest is India (52.0). Figure 9 below shows the overall Index for each country, and the five index components for each. The UK rates well in four of the five indices: Lifecycle (63.3 – tied with the USA), End User (68.2), Enterprise (62.6) and Enablement (60.6). The USA leads in Lifecycle (63.3 – tied with the UK) and Metrics (51.8), and is second overall (58.6). Australia’s low ratings in Enablement (51.5) and a very poor progress in Metrics (40.6), rank them third, followed by India which rates lower in Lifecycle (53.8) and in End User (50.3).

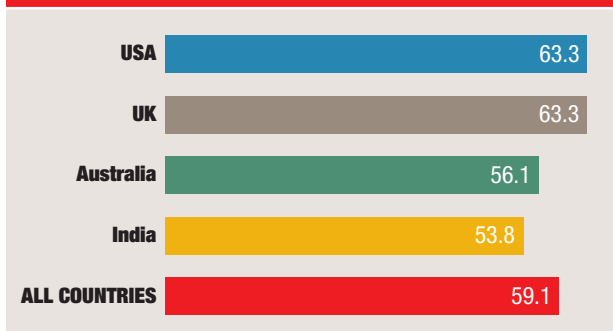
The findings indicate different results in the four different countries surveyed, but the spread is in most cases comparatively small. Each has strengths and weaknesses, as the chart below clearly shows; their overall Green IT performance is broadly similar. This indicates there is substantial room for improvement in all areas. The next few pages examine the individual index components by country.



LIFECYCLE

The USA and the UK are equal in the Lifecycle Index, with Australia third and India last. The USA is ahead of the UK in green disposal practices, and the UK is ahead of the US in green procurement practices. Australia and India do not fare well in either area, with India performing particularly poorly in green IT procurement.

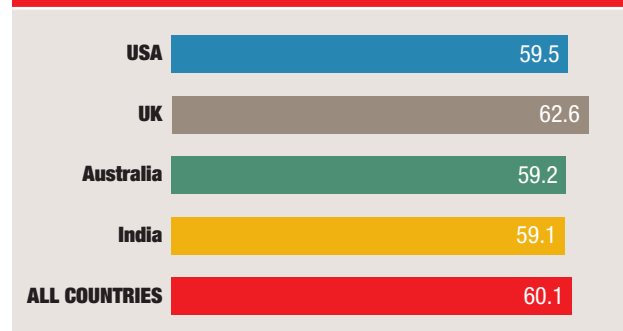
FIGURE 10: LIFECYCLE INDEX



ENTERPRISE

There is very little variation in the Enterprise Index by country, reflecting the reality that the issues facing data centers are much the same the world over. In the last 12 months in particular, there has been a lot of publicity and increased awareness of data center energy consumption. The UK performs a little better than the other three countries, but not significantly so.

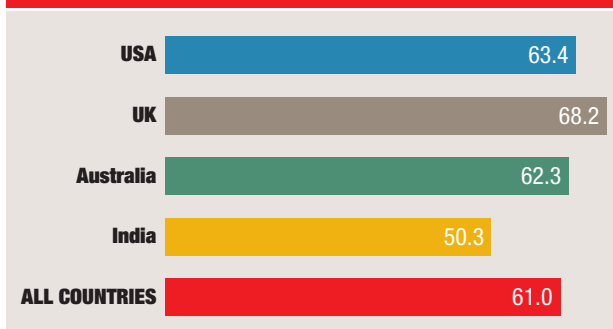
FIGURE 12: ENTERPRISE INDEX



END USER

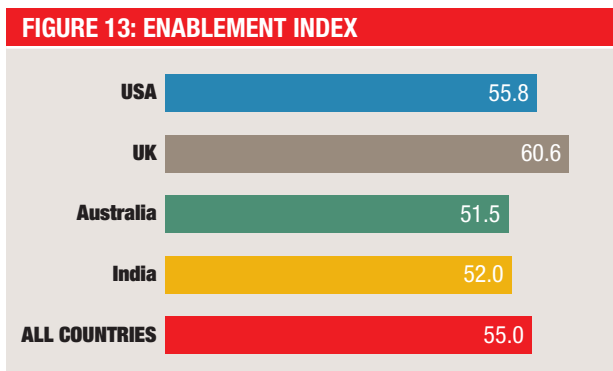
The UK is the clear leader in the End User Index. The PC power management market is advanced and end user Green IT has a high profile. The USA does a little better than Australia, and India's rating is very low, in End User Green IT practices.

FIGURE 11: END USER INDEX



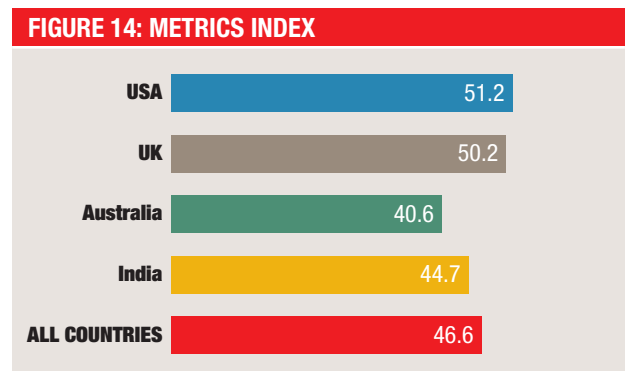
ENABLEMENT

The UK rates best in the important Enablement Index – the usage of IT to reduce energy consumption and the carbon footprint outside of the IT function. It has the most advanced carbon reduction legislation of any of the countries surveyed – its CRC (Carbon Reduction Commitment) is a world leader. The USA comes second, with India and Australia trailing.



METRICS

In each country, the Metrics Index is the lowest of any of the Green IT indices measured. No country does well, though Australia does particularly poorly, consistent with the fact that more than two thirds of IT departments don't know their power bill in Australia. The Australian Metrics Index is the lowest for any country in any component of the overall Green IT Readiness Index. The USA does best, because of the relatively advanced state of data center metrics in that country.



The comparisons by country are quite revealing. The End User and Enterprise indices are highest overall, indicating that IT departments are starting to understand Green IT from an operational viewpoint. But the two areas with the lowest indices are arguably the most important. Metrics is essential to effective Green IT, and IT's important role in low carbon Enablement is too often overlooked by IT departments and professionals who concentrate only on the internal IT function.

The following pages examine the differences between industry sectors across the four countries surveyed.

GREEN IT READINESS INDICES BY INDUSTRY

The research allows for comparison between industries, and between the same industries in each of the countries. There are significant differences between industry sectors. In most cases these differences are similar in each country – an organization’s Green IT maturity is as much a function of its industry sector as its country. A bank in the USA, for example, is more likely to be similar

to a bank in Australia than it is to a manufacturing company in the USA.

The table below shows the responses by industry and by country for four major industry sectors:

- IT/Communications/Media
- Manufacturing
- Government
- Financial Services

FIGURE 15: INDUSTRY COMPARISONS BY COUNTRY (MAJOR INDUSTRIES)

IT / COMMS / MEDIA	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT READINESS INDEX
USA	66.8	68.1	65.0	61.9	57.4	63.8
UK	66.0	78.3	72.2	67.6	56.1	68.0
Australia	57.3	64.6	61.8	53.3	44.4	56.3
India	63.7	55.0	66.2	64.7	61.2	62.1
ALL COUNTRIES	63.4	66.5	66.3	61.9	54.8	62.6

MANUFACTURING	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT READINESS INDEX
USA	68.6	66.4	66.2	63.3	59.5	64.8
UK	63.9	67.7	63.1	62.7	54.2	62.3
Australia	50.7	57.1	50.0	45.7	34.5	47.6
India	68.1	57.9	64.3	55.0	43.0	57.7
ALL COUNTRIES	62.8	62.3	60.9	56.7	47.8	58.1

GOVERNMENT	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT READINESS INDEX
USA	60.7	59.1	54.5	50.4	46.5	54.2
UK	56.6	56.2	51.3	52.3	36.2	50.5
Australia	61.1	66.6	64.7	55.5	42.1	58.0
ALL COUNTRIES	59.5	60.6	56.8	52.7	41.6	54.2

FINANCIAL SERVICES	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT READINESS INDEX
USA	65.3	64.8	60.6	58.7	51.9	60.3
UK	66.9	69.3	65.8	62.1	54.8	63.8
Australia	54.5	63.2	59.2	49.1	43.7	53.9
India	51.1	51.3	60.0	52.2	41.0	51.1
ALL COUNTRIES	59.5	62.1	61.4	55.5	47.8	57.3

The next section explores these industries in more detail.

IT/COMMUNICATIONS/MEDIA

IT/Communications/Media's overall Green IT Readiness Index (62.6) is the highest of any industry, and is significantly higher than the overall Green IT Readiness Index (56.4). It performs better than average in all countries, though not by a large margin in Australia. The results indicate the higher level of IT sophistication of organizations in this industry sector, which is reflected in the greater maturity of their Green IT.

FIGURE 16: IT/COMMUNICATIONS/MEDIA BY COUNTRY INDEX

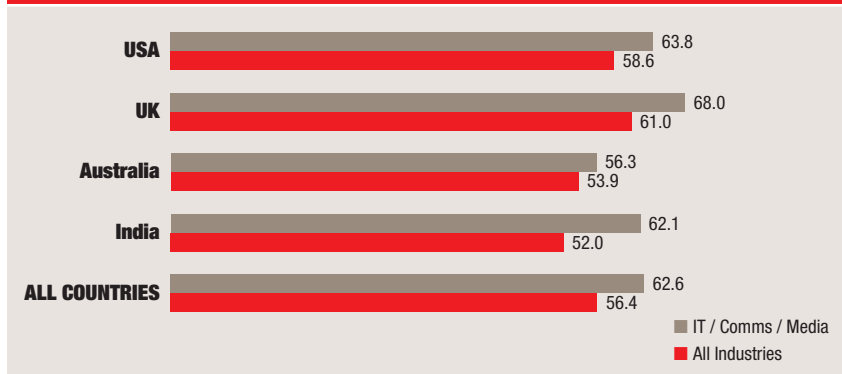


FIGURE 17: IT/COMMUNICATIONS/MEDIA BY COMPONENT INDEX

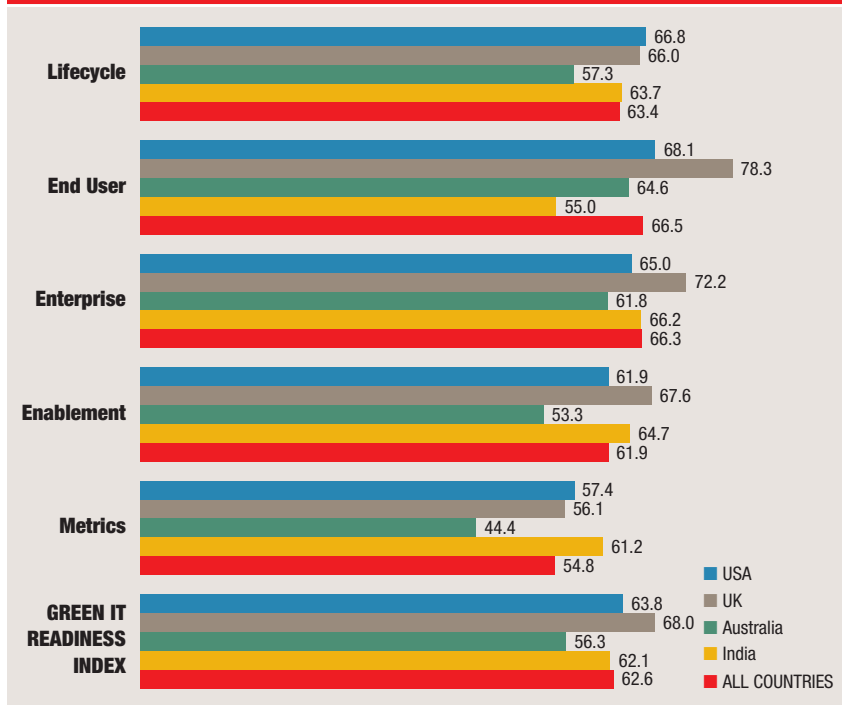


Figure 17 above shows all five index components for IT/Communications/Media, and IT/Communications/Media's overall Green IT Readiness Index for each country.

MANUFACTURING

Manufacturing's overall Green IT Readiness Index (58.1) is slightly higher than the overall Green IT Readiness Index (56.4). It performs much better than average in the USA and India, and is marginally higher in the UK. In Australia it is very low (47.6), with all Australian index components substantially below the Manufacturing average in every component of the index except End User, and even there it is still the lowest.

FIGURE 18: MANUFACTURING BY COUNTRY INDEX

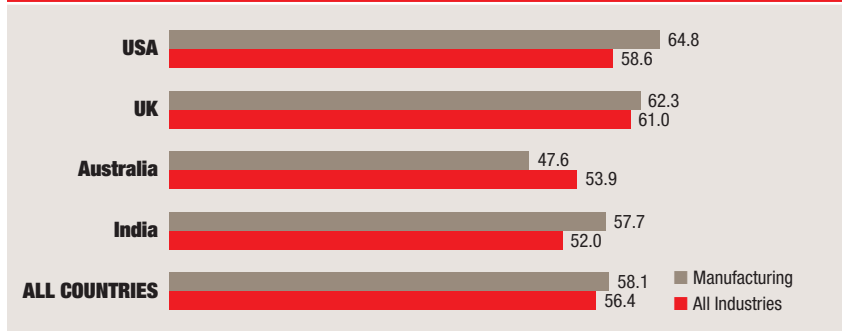


FIGURE 19: MANUFACTURING BY COMPONENT INDEX

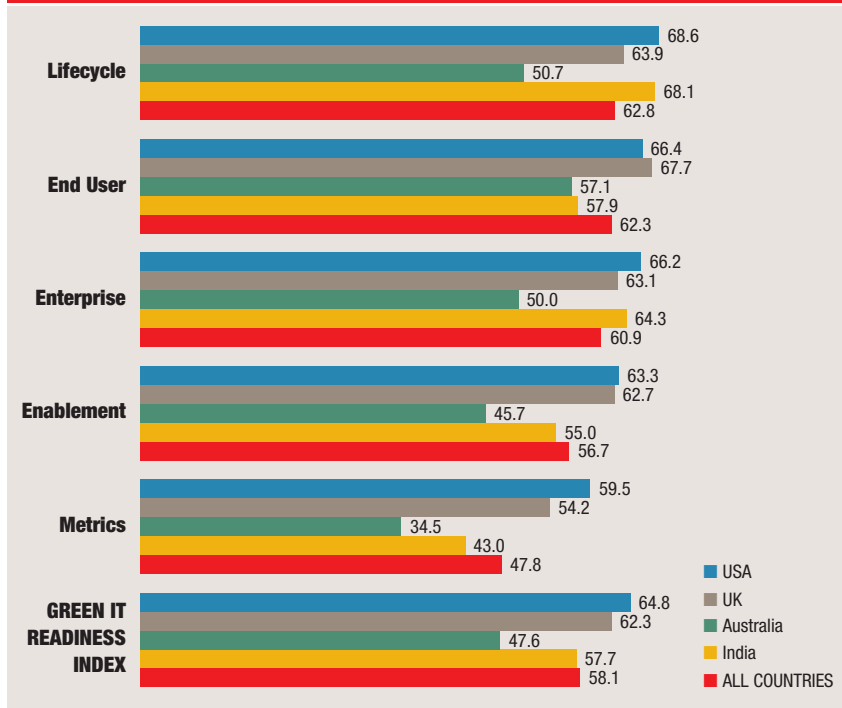


Figure 19 above shows all five index components for Manufacturing, and Manufacturing's overall Green IT Readiness Index for each country

GOVERNMENT

Government’s overall Green IT Readiness Index (54.2) is slightly lower than the overall Green IT Readiness Index (56.4). It performs better than average only in Australia, where it is highest overall and much higher than the average across all Australian industry sectors. Government performs below the average for all industries in the UK and the USA. Note that India is excluded – the survey did not include any India government organizations.

FIGURE 20: GOVERNMENT BY COUNTRY INDEX



FIGURE 21: GOVERNMENT BY COMPONENT INDEX

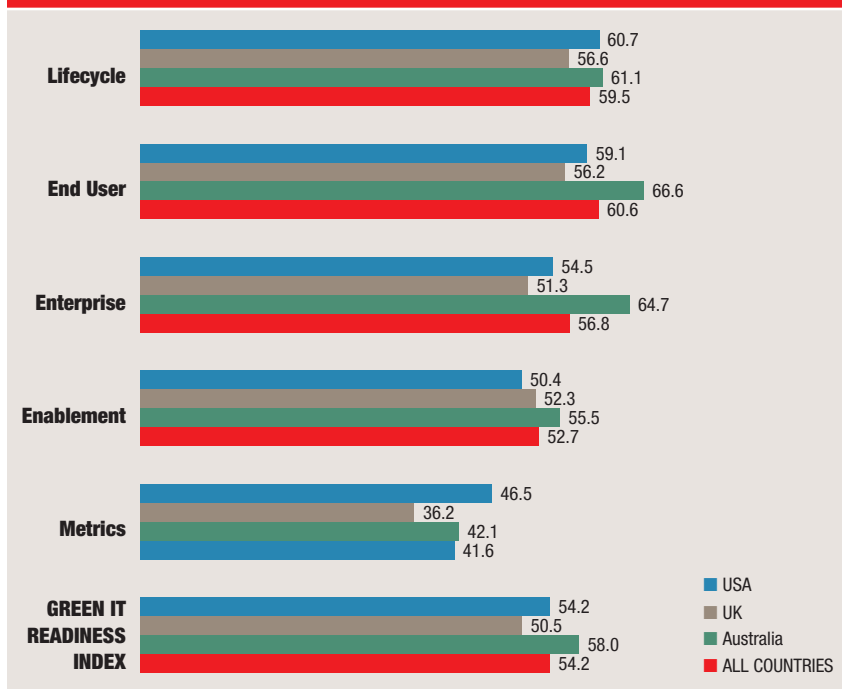


Figure 21 above shows all five index components for Government, and Government’s overall Green IT Readiness Index for each country.

FINANCIAL SERVICES

Financial Services' overall Green IT Readiness Index (57.3) is only marginally higher than the overall Green IT Readiness Index (56.4). It is very close to the average in all countries, though a little higher in the USA and the UK.

FIGURE 22: FINANCIAL SERVICES BY COUNTRY INDEX

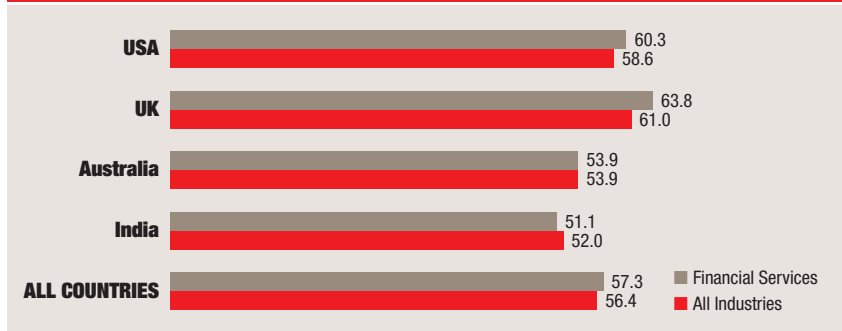


FIGURE 23: FINANCIAL SERVICES BY COMPONENT INDEX

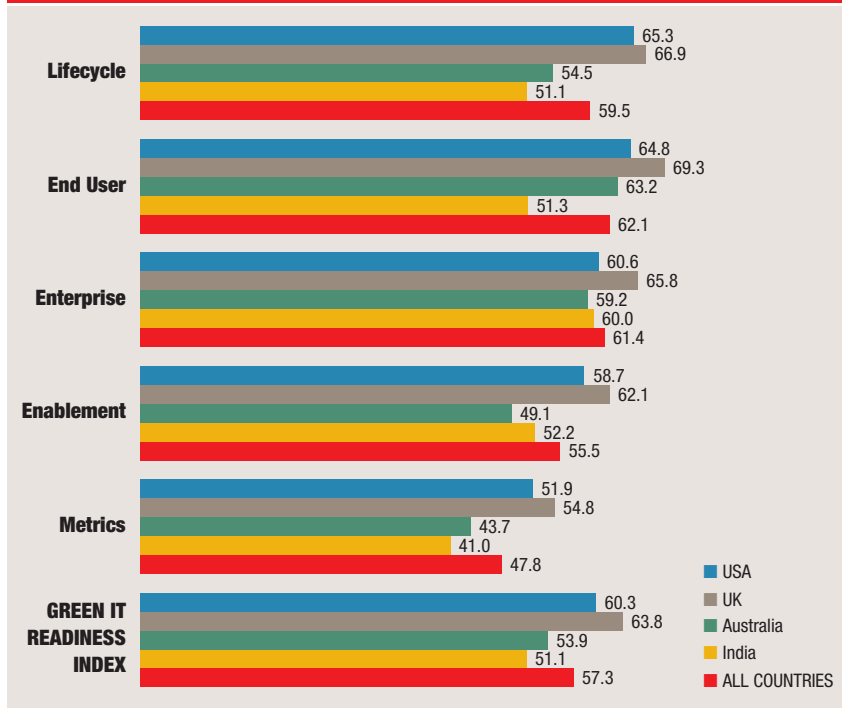


Figure 23 above shows all five index components for Financial Services, and Financial Services overall Green IT Readiness Index for each country.

THE DATA

The tables below shows the research's entire data set – for every country and for every industry sector. It shows the overall Green IT Readiness Index, the five Index components, and the number of respondents (=N) for each group.

TABLE 2: FULL DATA SET

UK	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT INDEX	N
Manufacturing	63.9	67.7	63.1	62.7	54.2	62.3	28
Wholesale / Retail / Logistics	60.1	63.0	58.5	56.5	46.6	56.9	30
IT / Comms / Media	66.0	78.3	72.2	67.6	56.1	68.0	34
Government	56.6	56.2	51.3	52.3	36.2	50.5	22
Professional & Other Services	71.7	75.5	69.3	67.5	59.2	68.6	33
Finance / Business Services	66.9	69.3	65.8	62.1	54.8	63.8	13
Health / Education / Welfare	56.3	61.2	52.7	51.6	40.8	52.5	27
UK	63.3	68.2	62.6	60.6	50.2	61.0	187

USA	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT INDEX	N
Manufacturing	68.6	66.4	66.2	63.3	59.5	64.8	34
Utilities & Construction	70.3	73.9	67.8	67.5	56.3	67.1	10
Wholesale / Retail / Logistics	60.9	61.7	57.0	52.1	47.7	55.9	37
IT / Comms / Media	66.8	68.1	65.0	61.9	57.4	63.8	51
Government	60.7	59.1	54.5	50.4	46.5	54.2	28
Professional & Other Services	57.5	59.4	53.8	50.1	45.6	53.3	31
Finance / Business Services	65.3	64.8	60.6	58.7	51.9	60.3	27
Health / Education / Welfare	58.4	57.6	52.2	46.1	53.2	51.5	29
USA	63.3	63.4	59.5	55.8	51.2	58.6	248

AUSTRALIA	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT INDEX	N
Manufacturing	50.7	57.1	50.0	45.7	34.5	47.6	17
Utilities & Construction	55.4	61.2	60.3	54.9	41.8	54.7	10
Wholesale / Retail / Logistics	51.5	55.2	50.8	43.6	30.6	46.3	15
IT / Comms / Media	57.3	64.6	61.8	53.3	44.4	56.3	13
State & Federal Government	62.7	67.4	66.2	58.1	41.8	59.2	26
Local Government	58.5	65.4	62.3	51.1	42.7	56.0	16
All Government	61.1	66.6	64.7	55.5	42.1	58.0	42
Professional & Other Services	58.7	65.1	63.7	55.4	46.7	57.9	12
Finance / Business Services	54.5	63.2	59.2	49.1	43.7	53.9	27
Health / Education / Welfare	55.2	61.4	58.5	52.0	38.9	53.0	27
Australia	56.1	62.3	59.2	51.5	40.6	53.9	163

INDIA	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT INDEX	N
Manufacturing	68.1	57.9	64.3	55.0	43.0	57.7	9
IT / Comms / Media	63.7	55.0	66.2	64.7	61.2	62.1	10
Finance / Business Services	51.1	51.3	60.0	52.2	41.0	51.1	15
Other	51.5	44.3	59.5	44.7	38.2	47.6	6
India	53.8	50.3	59.1	52.0	44.7	52.0	40

BY COUNTRY	LIFECYCLE	END USER	ENTERPRISE	ENABLEMENT	METRICS	GREEN IT INDEX	N
USA	63.3	63.4	59.5	55.8	51.2	58.6	248
UK	63.3	68.2	62.6	60.6	50.2	61.0	187
Australia	56.1	62.3	59.2	51.5	40.6	53.9	163
India	53.8	50.3	59.1	52.0	44.7	52.0	40
ALL COUNTRIES	59.1	61.0	60.1	55.0	46.6	56.4	638

CONCLUSION

A lot of people talk about Green IT, and a lot of people believe it is necessary; however this has not yet translated into significant action. This paper clearly shows that, for every industry in every country, and for every aspect of Green IT, the average level of maturity is low and significant opportunity for improvement remains.

This highlights one of the key issues in Green IT – responsibility. Green IT is such a large topic that it extends far beyond the data center or the IT department. It affects and is responsible for the end users and lines of business within the organization, the procurement function, and middle and senior management. Without integration into the wider business, Green IT will run the risk of being limited to only tactical project implementations and result in low levels of overall maturity.

This paper identifies the UK as the leading country for Green IT maturity, a possible reflection of the increased awareness resulting from the regulation in their market place. The leading industry sector, perhaps unsurprisingly, is IT/Communications/Media. This industry now has a responsibility to effectively communicate to the broader market place the benefits that can be gained from increased Green IT maturity.

The implementation of End User and Enterprise Green IT are the most advanced of the five indices, likely due to the tactical implementation of quick win or as a byproduct of efficiency initiatives implemented such as virtualisation. Although they rate as least mature, the areas of enablement and metrics have the greatest ability to deliver benefit to business, environment and society. Enablement technologies are the key to realising the full benefits of Green IT across all business activities, and a comprehensive system of measurement and reporting will be required to underpin the strategies that will achieve these outcomes.





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