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The EPS KPI´s Dashboard for TE Connectivity

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TFG REALIZADO EN PROGRAMA DE INTERCAMBIO

TÍTULO: **The EPS KPI´s Dashboard for TE Connectivity**

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Resumen

En los primeros capítulos se analiza el grado de implantación de las medidas sugeridas por el European Project semester 2013 business plan para la empresa TE Connectivity y el conocimiento de los productos estudiados y sus estrategias de mercado. En los capítulos centrales del proyecto se establecen los indicadores más importantes y se documenta la creación de una herramienta de seguimiento de los mismos capaz de registrar periódicamente los datos y mostrarlos de una forma clara y visual en formato Excel.

Tras la creación de la herramienta de seguimiento los primeros datos entregados por esta son analizados. Finalmente se entregan conclusiones acerca de las investigaciones realizadas y se establecen sugerencias de mejora tanto para la empresa TE Connectivity como para la herramienta de seguimiento de indicadores elaborada.

Palabras clave

Palabra clave	Explicación
TE Connectivity	Empresa para la cual se ha realizado el proyecto
The EPS 2013 business plan	Proyecto elaborado por el grupo perteneciente al programa EPS en 2013.
The field connectivity products	Productos sobre los que se ha trabajado
KPI	Indicador clave de estado del proceso
The EPS KPI´s Dashboard	Herramienta de seguimiento de indicadores

The KPI's Dashboard

Avans EPS 2014

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Preamble

First of all we want to thank TE for the opportunity to work on this project inside the company. We would like to especially thank Eric Leijtens, our company coach, for his confidence and guidance during the project.

Secondly we want to thank our school tutor Adriana Quintero, for her dedication and support during the last five months.

Thirdly we would like to express our gratitude to all those who have helped us inside TE by giving us critical information for the project with the interviews: Michiel Boermans, Mieke van der Kallen, Jeroen van Eendenburg, Bart Broeren and Luuk Nouwens. And a special mention to all of TE's employees who have assisted us during the project.

Also we want to thank Johan Wouters and all the Avans university teachers and employees responsible of the EPS courses and events.

We would like to especially thank and express our gratitude to Rob van Gerwen, Esther Tolenaar and Nidasesi, Santosh for taking the responsibility of keeping the dashboard up to date.

The 2014 EPS team.

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Glossary

Terms	Definitions
CAD files	Computer aided design file format
EPS	European project semester
FY	TE's fiscal year. A fiscal year Begins the 1st of September
IFD	Industrial focused distributor
KPI	Key performance indicator
PIC	Product information center
POP	Point of purchase meaning billings to distributors
POS	Point of sales meaning resale to end customers by distributors
Price erosion	Decreasing of price overtime
VPN	Virtual private network

1 Introduction

What is TE connectivity?

TE Connectivity (TE) is a $14 billion technology company that designs and manufactures the electronic connectors, components and systems inside the products that are changing the world. Their dedication to innovation, collaboration and problem solving helps engineers worldwide solve some of their biggest challenges, so they can create products that are smarter, safer, greener and more connected. TE's components are found in almost every product in the world that uses electronics, making them a small part of millions of big ideas. [1]

The challenge

Several years ago TE has been trying to be a more accessible company for smaller customers. Five years ago the decision of creating a minimum order quantity was made. Subsequently the smaller orders are served by a distributor instead of directly by TE. As a result of this decision, TE became a much more efficient company in their relationship with the customers. Even so they lost many of the smaller customers.

Now TE wants the smaller customers back and several actions have been made in order to attract them. The digital advantage has been developed to create a different kind of business model for the connectors market. *For reference look at the interview with Jeroen van Eendenburg Appendix A: I. The interviews.*

After the actions have been taken it is necessary to measure their success. In order to do so a tool should be made to follow key performance indicators that will give relevant information about the progress of the strategy.

The project

Under direction of Eric Leijtens, global manager of the field connectivity products, the 2014 EPS project team have been working on the creation of a measurement tool. This tool is called The EPS KPI's Dashboard and contains the relevant information for the field connectivity products. The Dashboard keeps track of the most important steps leading into a sale. *For reference look at the stakeholders map Appendix B: Stakeholders map.*

The project has been divided into two parts:

First, the 2013 EPS report and the implementation of their suggestions have been analyzed. This analysis is a general study about how well TE has implemented their suggestions in comparison with the competitors. The purpose of the analysis is, for the 2014 EPS team, to understand the context inside TE and to get an idea about what the key performance indicators for the dashboard could be.

After this analysis the project is focused on the creation of the dashboard.

For more information about the tasks, the team organization and the risk analysis of the project refer to the appendix C: I, II. Management documents.

Structure of the report

This report is divided in six different chapters:

- <u>Last year's report study and results:</u> The 2013 EPS report and the implementation of their suggestions are analyzed in this chapter.

- <u>The field connectivity products:</u> A specific study about these products that contains the most important information about the current state of the products in the market.

- <u>The key performance indicators:</u> An explanation of the chosen KPIs is given in this chapter.

- <u>The EPS KPI's Dashboard:</u> The description about the functionalities, instructions and structure of the dashboard. Subsequently an analysis of the first results from the dashboard was made.

- <u>Further improvements and recommendations:</u> Suggestions about TE's practices and other possible interesting KPI's are given in this chapter.

- <u>Conclusion:</u> Finally a general conclusion about the result of the project and its benefits for TE.

2 Last year's report study and results

2.1 Overview of last year's report

The 2013 EPS team worked on a business plan for TE's website. In their analysis they found out strengths and weaknesses of TE's website and suggested some improvements. After one year the 2014 EPS team is to check if those suggestions are implemented.

Conclusion from last year's team

"The main reason for making business with TE is the high quality of the products it offers. Moreover, the most satisfied customers are those who belong to the "Group A".

Furthermore, the customers appreciate the huge technical knowledge and the wide product portfolio which is a result of TE's global presence and its leadership in several market segments.

On the other hand, TE should put a big emphasis on improving its webpage. The customers complain about how complicated it is to find the right product. Customers' most popular problems are related with the selection process as they find it hard to decide between similar products. What every customer complained about was the long lead times TE has.

Actually, the customers mentioned that TE should pay more attention to the voice of the customer instead of the voice of the business. "[2]

2.2 2013 EPS team website suggestions' implementation level

TE has worked hard on improving its website in order to solve some of the customers complains. First of all the level of implementation of the suggestions for the website, made by last EPS students in 2013, has been analysed.

In the last years report, the group suggested to implement the following points to the website:

Suggestions	Explanation of the expected use
Design tool	A tool the customer can use to design their own connectors.
F.A.Q. assistance	A feature in the F.A.Q that helps customers to find the information they need. Can be used for example by inserting key words of their problem.
Ads on the front page	Front page advertisements of new products that can easily be seen when entering the site.
Big product picture	A big picture of the products on the catalog pages and on the product page.
Front page to e-catalogue	A clear link from the front page to e-catalogue.

Product availability	One can easily see the product availability on the product pages.
Big buying button	Big and distinctive button where one can buy the product or add it to cart.
Downloadable CAD files	CAD files of the products can be downloaded from the product page.
Changing language	One can change the language of the website and you will not leave the page you are currently viewing.
Open in new tabs	Open new pages, e.g. the product catalog, on a new tab.
No accessories	The website should not have accessories category. All the products should be put into more descriptive categories.
Mind map for search	A picture or a mind map which is a more visual way to find the product.
1st page short info, 2nd detailed	The catalog page (1st page) should have general information about each product and the product page (2nd page) should include more detailed information and downloads.
Online chat promotion	Promote online chat feature with a distinctive button.
Product search	A search bar to find what one needs.
Suggest similar products	Product pages should have suggestions of similar products.
Join in order tool	A tool where small customers can join their orders together to reach minimum order quantity.

Table 1: explanation of the implementation suggestions

The analysis of the website has been done by following these points.

Scores have been given by the EPS team 2014 from 1 to 10 in order to make the implementations measurable. A score of 1 means that it has not been implemented. A score of 10 means that it has been fully implemented. Any score between means that the feature has only been partly implemented.

The comparison between TE's website and the competitors' ones will show a more realistic evaluation of the implementation level for each suggestion.

Harting and Phoenix have been selected as example of competitors because last year's group used them as a point of reference. Amphenol has also been added because it is one of the biggest competitors of TE based on sales.

Implementation scores
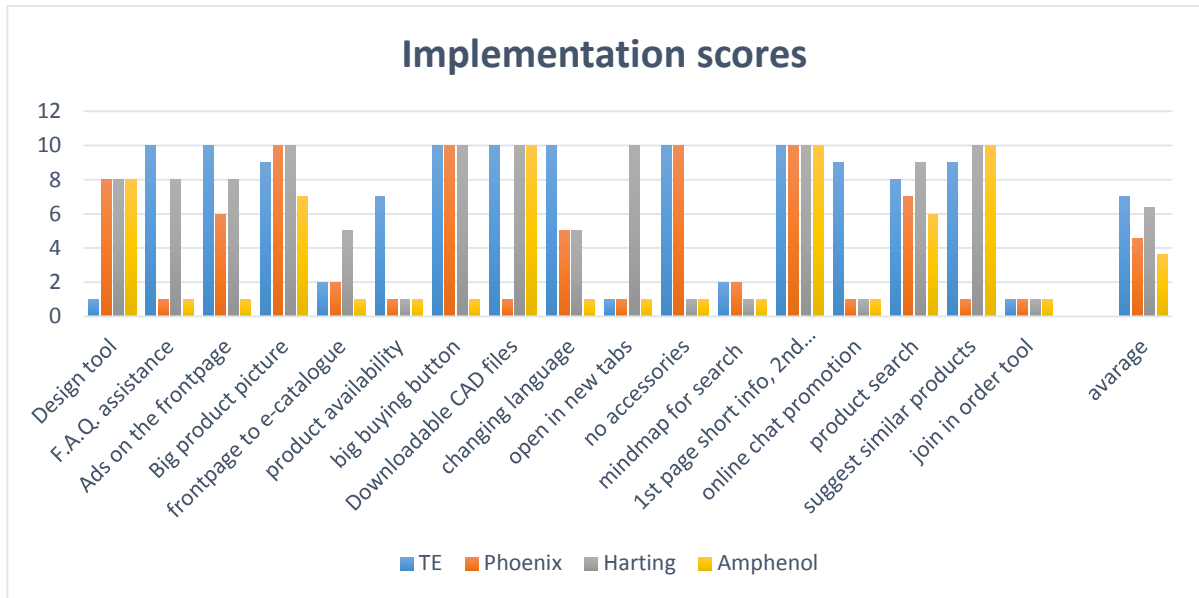
Figure 1: Implementation scores for last year's report suggestions

- Only TE and Harting have implemented a F.A.Q. assistance. TE's F.A.Q. is a bit easier to understand and to use.
- TE is the only one that shows the product availability of distributors.
- TE and most of the competitors have CAD files available.
- TE has the biggest score for language changing, because you stay on the same page when you change language.
- TE is the only one that has implemented online chat feature.
- None of the competitors nor TE has got a join in order tool. In TE's case that is because it conflicts with the distributors business.
- TE has the best score for product search because you can search on many criteria.

2.3 Development of the website traffic

Figure 2: Monthly visits to TE.com

As it can be seen in *figure 2* traffic flow has not changed dramatically during the last two years. It has constantly stayed around 200.000 visits per mont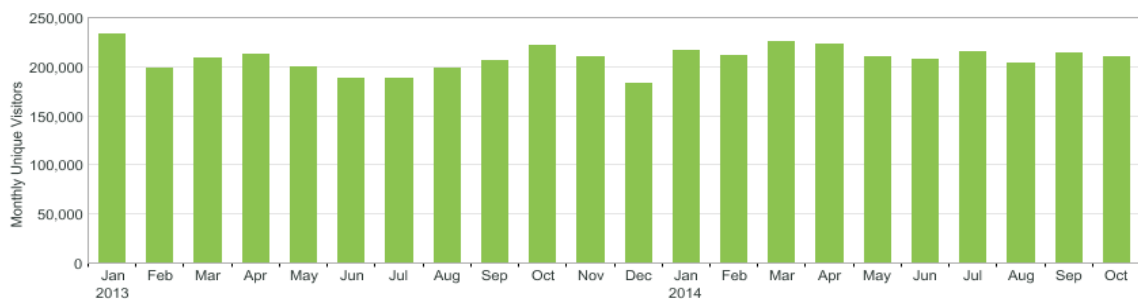h. What can be seen from the chart is the business conjuncture line in the traffic flow. This means that traffic is somehow related to the business conjuncture.

If a trend line is made in the chart, it would not increase nor decrease. This means there is no certain development in increasing traffic.
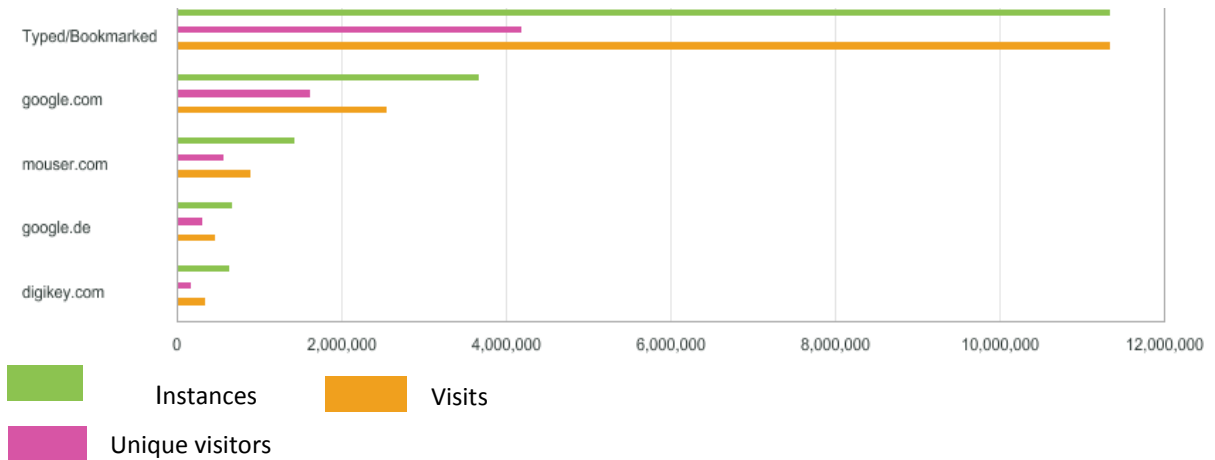
Figure 3: Source of the website visitors

Another important point is how visitors find TE.com. The *figure 3* shows that organic search is the most common method to go to TE.com. This means most visitors know how TE can be found on the internet without searching for it on a search engine.

However, the distributor website mouser.com is the 3rd best traffic redirector to TE.com. This means distributor websites are very important for traffic flow.

Figure 4: Origin of TE.com visitors

Thirdly the country where visitors come from. As it can be seen in *figure 4*, most traffic comes from the US. This makes sense if you look at the size of the country. This also counts for China, which comes second for most visitors. It should also be taken into account that a lot of TE employees are connected

via a VPN which is located in the US. This also applies to all the traffic regarding the website. The third most visits are coming from is Germany.

2.4 Customer experience survey

By using *table* 2 the performance of TE in relation with the customers has been rated in different areas:

Numerical value	Customer evaluation
1	Extremely Dissatisfied
2	Very Dissatisfied
3	Dissatisfied
4	Satisfied
5	Very Satisfied
6	Extremely Satisfied

Table 2: Grading explanation

TE connectivity	2007	2011	2012	2014
Quality of products	4.577	4.854	4.74	4.665
Requested delivery date	4.134	4.137	4.202	4.140
Order lead time	3.843	3.867	3.869	3.953
Price competitive	3.859	4.010	3.904	4.189
Technical support/expertise	4.368	4.664	4.529	4.563
Easy to use catalog	4.146	4.409	4.341	4.402
Handling problems	4.048	4.226	4.080	4.198
Customer service	4.237	4.407	4.393	4.432
Average	4.146	4.321	4.245	4.311
Rank	14	8	14	18

Table 3: TE's customer experience scores

TE has its worst rating in order lead time. It is one of the biggest weaknesses of TE.

During the last two years TE has put a big effort on improving their relationship with their customers. 2014 Bishop & associated report shows that TE has significantly improved during the last 14 years. As a conclusion TE is working towards the right direction in improving its performance with customers. [3]

Product Information and Technical Support center (PIC)

In order to improve the relation with the customers The Product Information Center has been created to cover the customer requests for Product Information and Technical Support.

Item	Mean
Personal contact with Product Information Specialist	4.06
Forums	1.93
Blogs	1.65
Apps	1.86
Catalogues	3.62
FAQs/Knowledge Database	3.00
Company web-site	4.34

Table 4: Mean of preferred contact channels

In *table* 4 the customer preference of common channels for product information is ranked from 1 (low) to 5 (high).

As a conclusion from *table* 4, the PIC center should be considered as an important opportunity to reach customers and increase sales. [4]

For more information about PIC refer to the interview with Bart Broeren Appendix A: II. The interviews.

Customer experience survey about website

In order to know the experience of the customers about the website the results of survey have been compared with the results of the biggest competitors of TE in terms of sales. The results can be seen in *table* 5.

Company	NA sales Rank	Website Survey rank	Average score
TE connectivity	1	3	4.579
Amphenol	2	40	3.877
Molex	3	6	4.472
Delphi connection systems	4	28	4.045
Yazaki	5	46	3.42
Glenair	6	15	4.196
Samtec	7	1	4.832
ITT interconnected solutions	8	30	4.036
3M	9	10	4.34
Carlisle	10	37	3.943

Table 5: Customer satisfaction for the website

TE has developed its website during the last few years. As a result TE's website is considered to be better compared to the competitors' ones. In addition TE is still developing it.

2.5 Marketing plan and actions

The 2013 EPS business plan suggested weaknesses in terms of marketing activities and customer service. An analysis has been made about these observations.

The business plan shows that TE does not spend much effort in attending exhibitions nor promoting events. TE is still not focused on them based on several meetings with TE marketing employees. However, TE will take part in the biggest branch showrooms in the world during the FY15: [2]

• IAS, China

• Electronica, Germany

• SPS IPC Drives, Germany

Nonetheless, research has been done on all marketing channels in order to know if TE is not using all possible channels. The result can be seen on *table* 6.

Each channel can only be marked as used (green) or no information could be found (red). This table was done by the 2014 EPS team and approved by the senior manager of sales & marketing, Gijs Wener, on behalf of TE.

Marketing channels	TE	Harting	Phoenix	Weidmuller
Search engine optimization	x	x	x	x
Search engine marketing	-	x	x	-
Social media	x	x	x	x
"Old media" mentions	x	x	x	x
Exhibitions	x	x	x	x
Pre-show promotion(exhibitions)	x	x	x	x
Website	x	x	x	x
Newsletters	x	x	x	x
Online ads	-	-	-	-
Flyers/catalogs	x	x	-	x
Email campaigns	-	-	-	-
Blog	-	-	x	-
Webinars	x	x	x	x
Activities with customers (not directly work related)	-	-	-	-
Sponsorship	x	x	x	x

Table 6: Marketing channel research based on implementation

As it can be seen in *table 6*, TE lacks in several important channels.

• **E-mail:** It is considered to be very effective to approach your target group via this channel.

• **Search engine marketing:** TE cannot be found as an advertiser in search engines, which means this is an open opportunity.

- **Activities with customers:** This is important in order to keep TE's customers loyal so that they will not go to competitors.

Although no information could be found about these marketing channels the channels might still be used. It is still important to find out if they are not used in the company.

3 The field connectivity products

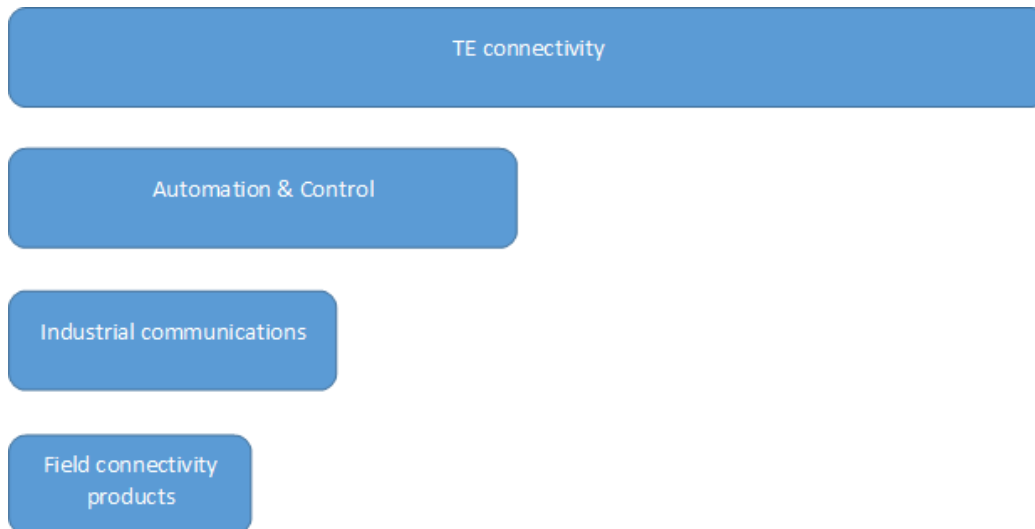## 3.1 What are the field connectivity products?

Figure 5: Map for the field connectivity products inside TE connectivity

TE is a worldwide company with a big amount of different business units. The EPS team has been working, inside the Automation & Control industry, in specific products of the Industrial communications area, the field connectivity products:

- **Industrial RJ45:** TE´s Industrial Ethernet RJ45 connectors offer a ruggedized design for use in Industrial Ethernet applications and are equipped with a robust and fast termination technology, utilizing the company's common core design in the RJ45 Modular Plug Series. [5]

Figure 6: Industrial Rj45

- **M8/M12:** TE's M8/M12 Connector System for machine industrial automation and control applications provides a solution that safely and reliably ensures the communication in industrial environments. TE's connector solution includes an extensive connector range of PCB headers, cable assemblies and IO boxes, and provides users with a future-proof interface that supports higher bandwidth needs - meeting the requirements of up to 10 Gb/s. [6]

Figure 7: M8/M12

- **Mini I/O:** TE's Industrial Mini I/O connector provides innovative and timesaving wire-termination alongside serving as a space saving and reliable I/O solution for industrial environments. [7]

Figure 8:Mini I/O

- **Industrial USB:** The industrial USB connector is ideal for all industrial USB applications that require a high locking force. The series meets USB2.0 specifications. [8]

Figure 9: Industrial USB

- **ARISO:** A hybrid interconnection system, based on both contactless power and contactless data technology, which can easily connect over a short distance without physical contact. [9]

Figure 10: ARISO. Contactless connectivity

- **Custom products:** Products designed for a specific application or customer.

- **Others:** Products that are not part of the product families but still part of the scope because they are responsibility of the project manager, Eric Leijtens.

For more information about the specific products that are contained in the different product families refer to the Appendix D: The field connectivity products table.

3.2 Product life cycle

The product life cycle phase of the field connectivity products can be seen in *figure* 11.
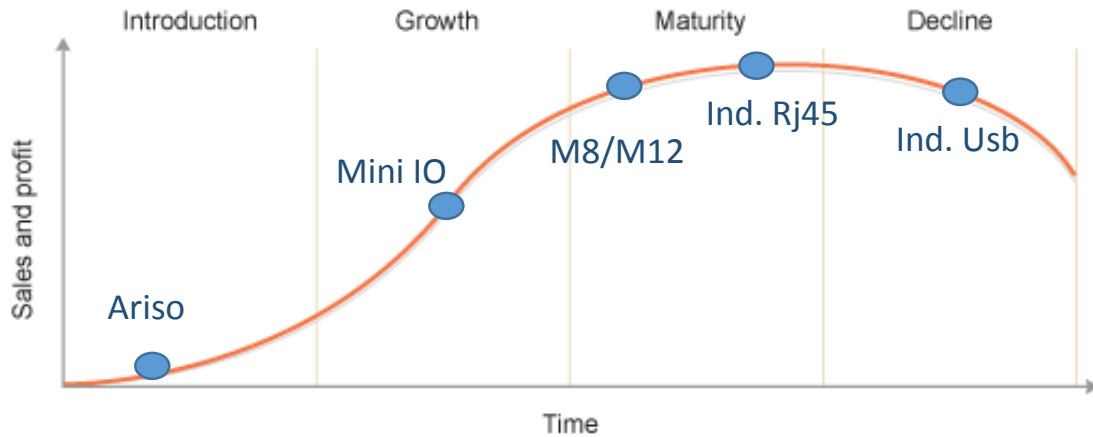

Figure 11: Product life cycle

3.3 Market share & forecast

In 2013, connector industry's sales increased by 2.7%. The European region exhibited the greatest growth followed by Asia-Pacific and North America regions. [10]
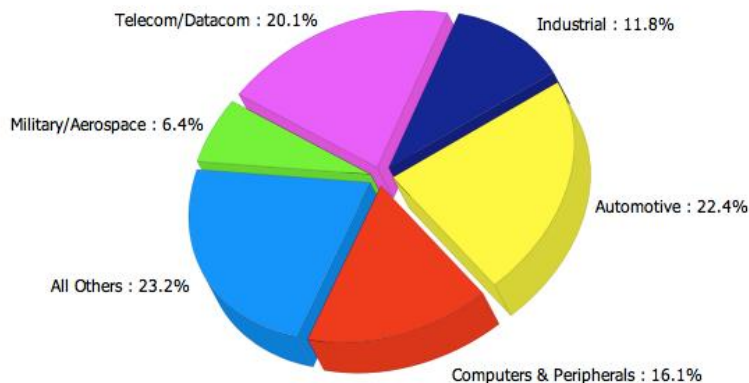

Figure 12: Biggest industries for the connectors market in 2013

The *figure 12* shows the different industries which set up the market for connectors. According to the senior manager of sales & marketing, Gijs Wener, the shipped amount for the field connectivity products was about 30 million US$ during the fiscal year 2014. He also told that the total market for these products is 825 Million US$. Therefore TE's market share in the FY14 was about 3.6%.
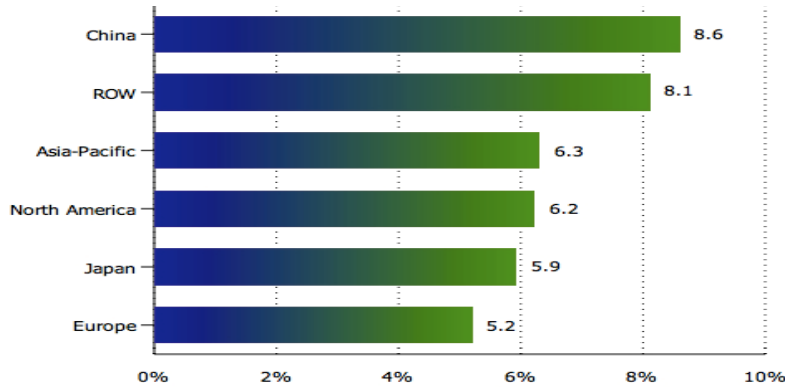
Figure 13: Expected growth for the connector market in the next five years

According to *figure 13* it is possible to estimate that the global connector market will grow around a 6.7% during the next five years.

TE expects a growth of 5.5% for the field connectivity products market during the next two years.

3.4   Product family website pages

The importance of website as a marketing platform has increased significantly over the past few years. This is the reason why it has such a big role in the project scope.
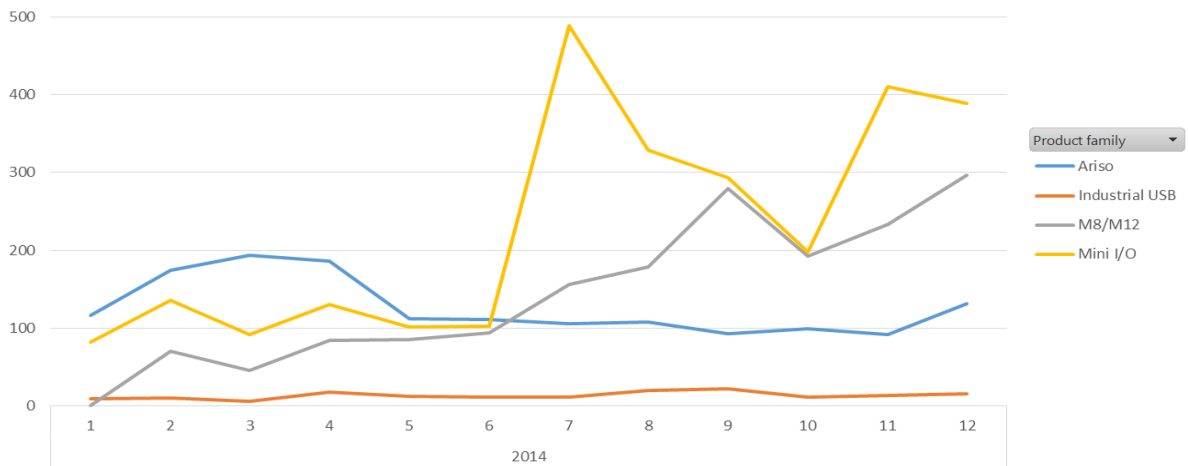

Figure 14: Visits to the product family page

The *figure 14* shows the development of the traffic to the different product family pages during the last fiscal year. It can be seen that Mini IO and M8/M12 have grown considerably since the 6th fiscal month of 2014 most likely due to marketing actions and changes in the website.

An increasing trend in the website visits indicates growing interest in a specific product family.

3.5 Marketing actions

The marketing activities for Field Connectivity have been globally aligned. First of all, the product portfolio has been completed by launching several products during the last six months. The portfolio communication is the most important part of sales process to increase sales. Therefore, educating customers on technologies/products, and communicating brand are also a part of the marketing strategy. This approach can be underlined by 135 magazine articles around the world during the 3rd quarter of 2014.

According with the sales and marketing specialist, Oliver Hoffman, the development and placement of advertisements, articles and speaker opportunities related to Field Connectivity (Red Couch at SPS, forums) costs around 30kUS$. This number does not include flyers, catalogs, solution guides, QRGs, print, images, website development, presentations, etc. If the costs of these marketing actions would be taken into account another 120kUS$ must be added.

3.6 Bank of samples

The last year's students concluded that the samples and the samples availability were two important aspects for the customers. They noticed that TE had to improve their sample bank to cover these requirement. [2]
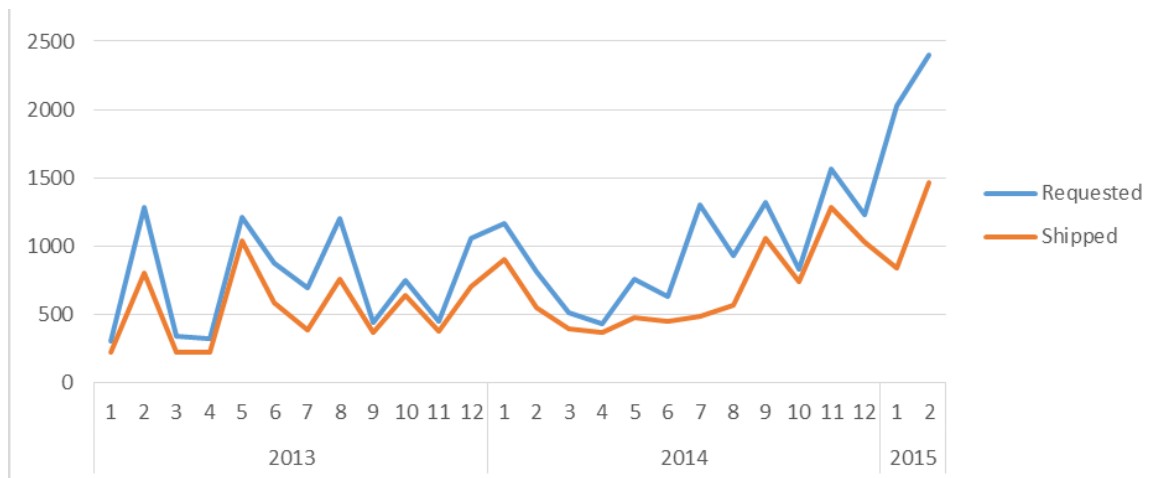

Figure 15: Samples requested and shipped

The *figure 15* shows the number of samples requested and shipped has increased during the last fiscal years. It also shows that often the difference between the number of sample requests and shipments is rather substantial and this can cause loss of opportunities.

Another advantage of an efficient sample bank is a good way to create demand. *For reference look at the interview with Michiel Boermans Appendix A: III. The interviews.*

3.7   Lead times

One of the biggest issues of TE according to the different customer surveys that the 2014 EPS team has read, are the lead times. The lead time for the field connectivity products in the fiscal year 2014 has been 29 days. According to the global manager for the field connectivity products, Eric Leijtens, the objective is to reduce the lead time to 12 days by the end of the year 2015. [2] [3]

4 The Key performance indicators

4.1 Sales process

TE has two different sales channels for big and smaller customers so that they can be served as efficiently as possible. As a conclusion it is possible to define two different pipelines that lead the possible customers depending on the amount of requested products. These channels are:

✓ Direct sales
  o Sales channel for customers with high order quantities. These customers are served directly by TE.
✓ Channel sales
  o The channel sales is directed to customers who order smaller amounts of products. Therefore, they are served through distributor partners.
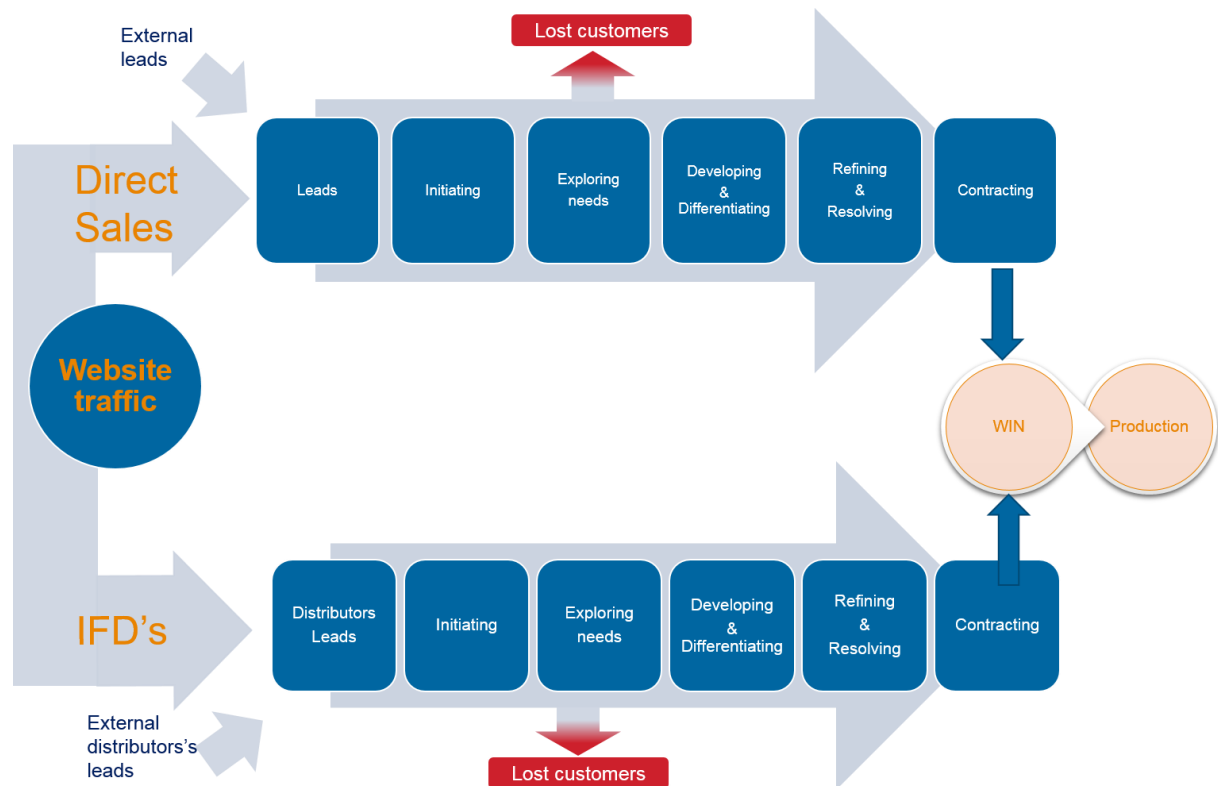

Figure 16: The sales process

As it is shown in the *figure 16* the leads come into the process from the website or from another external source. If the number of requested products is bigger than the minimum order quantity the customer will be served through direct sales. In any other case the leads will be guided to the different industrial focused distributors (IFD's) that are partners of TE.

When the opportunities are in the channel pipeline the distributors are in direct contact with the customer and TE negotiates the contracts with the distributors instead of the end customers.

It is important not to mix the different sales channels as they operate very distinctively. Despite the differences, both of the pipelines use the same terminology and the data available is in the same format.

The opportunities pipeline

The sales process at TE has been standardized so that it is easy for anybody to follow the development of any sales process. The sales process steps are defined as follows:
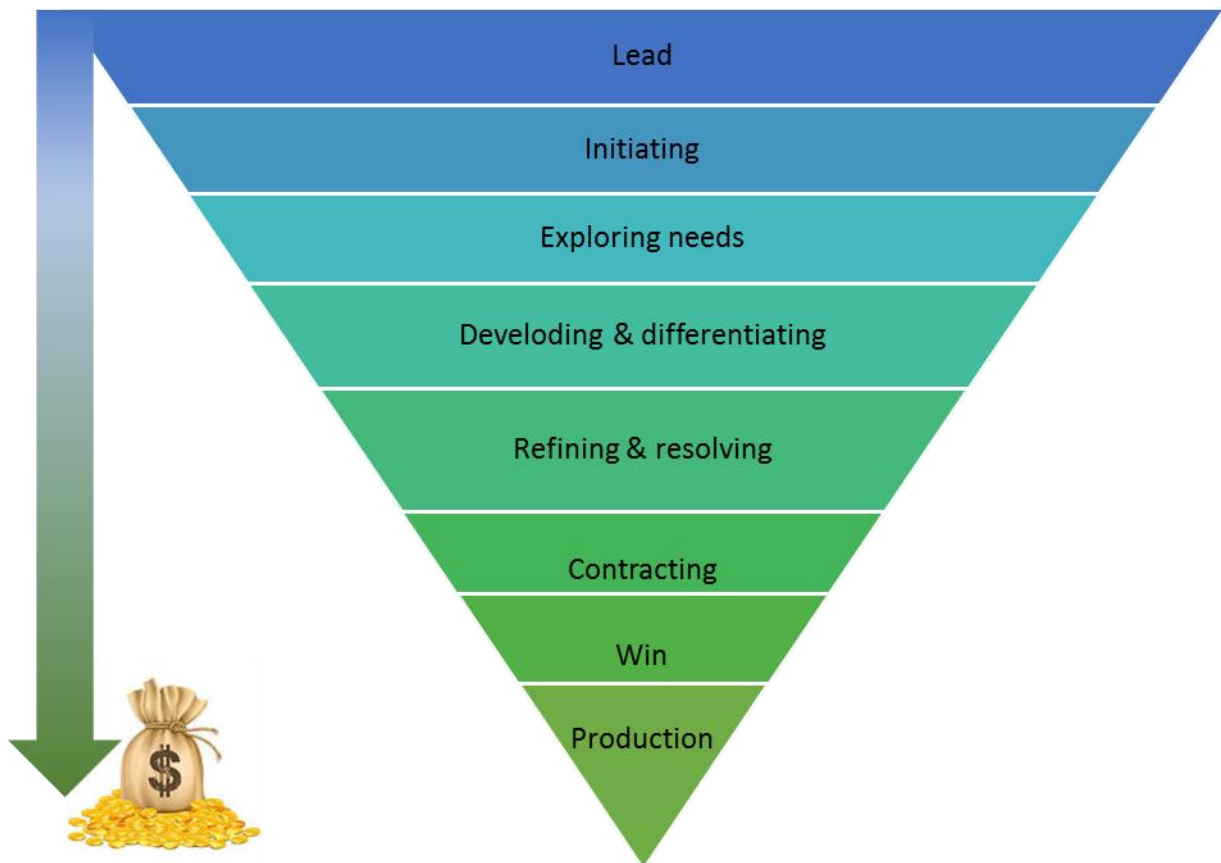

Figure 17: The opportunities pipeline

- **Lead:** a document (paper or electronic) that contains contact information for a business interested in purchasing TE's goods or services.

- **Initiating**: During a meeting/call the customer shared an Implied Need that a TE solution can address. The customers' business/competitive issues have been identified through research. The customer has agreed to provide access to Focus of Dissatisfactions (FOD)

- **Exploring needs:** FODs have revealed Implied Need and Implications. FODs have revealed Explicit Needs and Payoffs. The customer has shared the decision making process for this

specific opportunity, including Stakeholder Map. The customer has shared alternative and/or competitive options for this opportunity. The opportunity has to meet the five criteria dot intent to act.

- **Developing & differentiating:** The customer has shared decision criteria and their ranking of importance. Solution has been fully explored and defined with the customer (including commercial terms & timelines). The customer has given feedback on initial solution recommendation against their decision criteria. The customer has agreed to a final solution recommendation to the Focus of Power.

- **Refining & resolving:** Focus of power has provided feedback on initial solution recommendation. The negotiable issues have been agreed with the client. The negotiating strategy has been agreed upon with manager/GAM/Account manager. Product design and technical specification has been approved by the customer. The customer informed that TE has been selected as the preferred option.

- **Contracting:** The customer has signed the contract or provided purchase order. TE Legal confirms contracts are signed and approved.

- **Won:** First products are shipped to the customer for pre-production. First products are shipped to the customer for serial production.

- **Production:** Project ownership transfer to the account manager including forecasting demand requirements.

Understanding this pipeline and all of its phases is essential for finding out the most important key performance indicators of the sales process. [11]

4.2 Website Key performance indicators

4.2.1 Unique visitors to the product family pages

Suggested by: *The EPS team.*

Data source: Website analysis software, Adobe Analytics.

Description: By following the number of unique visits, the amount of people interested in the product families can be seen.

This is the earliest indicator of the interest in each product family because most likely the customers that are interested in the products first search the internet and after that they contact the company.

The criteria for a unique visitor is only counted once in the timeframe of the report. For example, when running a unique visitor report for the month of October, the visitor will only be counted once in that month.

Time period: The data will be tracked for the previous two years

4.3 Sales pipeline Key performance indicators

The following KPIs are applied to both sales pipeline.

4.3.1 Number of opportunities

Suggested by: *The EPS Team, Eric Leijtens and Ruud Van Den Brink.*

Data source: Salesforce

Description: tracks the number of opportunities per phase and month. This gives an idea about the total amount of opportunities. Also the development of the opportunities can be seen together with the difference in amount of opportunities in each phase.

Time period: The data will be tracked for the previous 12 months.

4.3.2 Number of won, lost and new opportunities per month

Suggested by: *Eric Leijtens and Ruud Van Den Brink.*

Data source: Salesforce

Description: The number of won, lost and new opportunities per month is tracked in order to see the level of success of the sales process. Also the expected revenue of won and new opportunities is useful to know. It is important to see the difference between won and new compared to the lost opportunities in order to see how healthy the sales process is in addition it is possible to create a trend about expected revenue of the new and won opportunities.

Time period: The data will be tracked for the previous 12 months.

4.3.3 Expected revenue of opportunities

Suggested by: *The EPS Team, Eric Leijtens and Ruud Van Den Brink.*

Data source: Salesforce

Description: By tracking the expected revenue in each phase implications of future revenue can be seen.

Time period: The data will be tracked for the previous 12 months.

4.3.4 Average expected revenue per phase

Suggested by: *The EPS Team*

Data source: Salesforce

Description: By tacking the expected revenue the average value in each phase of the sales process can be seen. With the help of this it is possible to see if expectedly more profitable opportunities are pushed forward in the sales process more avidly.

Time period: The data will be tracked for the previous 12 months.

4.4 Channel sales Key performance indicators

4.4.1 Point of Purchase (POP) & Point of Sales (POS) revenue

Suggested by: *Michiel Boermans and Mieke van der Kallen.*

Data source: Business intelligence unit in India

Description: Following the revenue of POP and POS the current trend of channel sales can be seen.

POP represents the direct purchases of the distributors from TE. POS shows the purchases of smaller customers from the distributors. It is expected to see future trends; first in the POS changing and afterwards POP following the trend of POS.

Time period: The data will be tracked for the current and the previous two years.

4.5 Other key performance indicators

4.5.1 Number of sample request & sample shipments

Suggested by: *Eric Leijtens, Bart Broeren and Ruud van den Brink.*

Data source: IBM Cognos.

Description: Track the samples ordered and samples sent per month.

By keeping track of the samples, concrete information about the interest in the product families and field connectivity products can be tracked.

Time period: The data will be tracked for the current- and the previous two years.

4.5.2 Number of customer complaints

Suggested by: *The EPS team and Luuk Nouwens.*

Data source: TE Customer handling system & IBM Cognos

Description: The customer complaints show how many customers are dissatisfied with the products they ordered.

If a large number of complaints is coming in, it can imply that something in the sales process or in the production is not going well. On the contrary if the number of complaints is the same or diminishing the customer experience is expected to get better.

Time period: The data will be tracked for the current and the previous two years.

5 The EPS KPI's dashboard

5.1 The structure of the dashboard

The EPS KPI's dashboard tool is separated into two workbooks. These are called:

- The_EPS_KPI's_Dashboard: this document includes all the charts, speedometers and visualizations of the data.
- Dashboard_Database: this document includes only the data without any of the charts or visualization.

This chapter will be focused on the KPI's dashboard and its functionalities.

The dashboard is separated into three different sheets. These are: Db_main, Db_Direct_Pipeline and Db_Channel_Pipeline.

The Db_main contains the information about the website traffic, POP and POS information, the samples and customer complaints. Each of the KPIs has been clearly and visually differentiated from each other to make the dashboard as understandable as possible.

The Db_Direct_Pipeline and Db_Channel_Pipeline contains the opportunities of direct and channel sales pipeline. The amount of opportunities and their expected revenue are visualized in the sheets to represent the sales process as easily as possible.

5.2 How to use the dashboard

The dashboard has a navigation bar on the top of it that makes it easy to navigate between the different sheets of the dashboard. In the navigation bar the master button can also be found. The functions of this button are introduced later.

Figure 18: The navigation bar

The dashboard has many functionalities that make the data more readable and the dashboard as a whole more usable. These functionalities are:

- Charts
- Speedometers
- Controls
    - Buttons
    - Slicers
    - Master buttons

Charts

Charts are the main way of visualizing the data. Most of the charts show the development of a KPI that has been mentioned above. There are two different kinds of charts in use. These are:
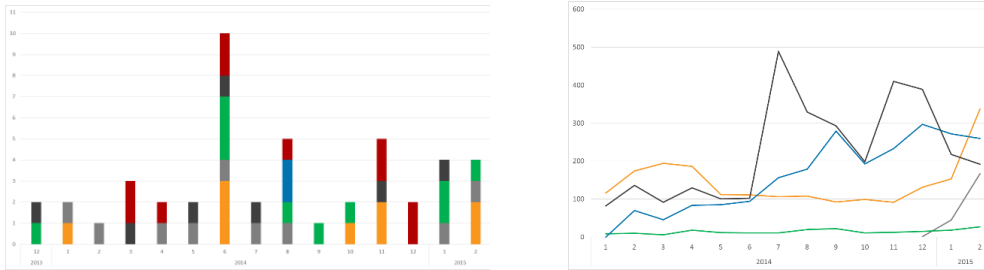
- Bar charts
- Line charts

Figure 19: Example charts

Speedometers

The other tool to visualize the development of the KPIs is the speedometers. These show the previous year's average monthly numbers compared to the previous month's numbers. The speedometers also show the objectives on three different levels:

- **The red:** which means that current situation is below previous year's monthly average.

- **Yellow:** the previous year's monthly results have been met but the monthly goal of the year has not been reached.

- **Green:** the monthly goal has been reached.
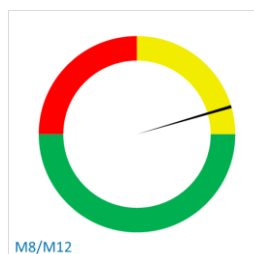
Figure 20: Speedometer example

Controls

Controls have been created in order to make the data more readable and for the user to be able to only see the data they want to. The controls are:

- **Buttons:** Used to control the speedometers. Allowing the user to select the product family they are interested in.

- **Slicers:** Used to filter the amount of information shown in the charts to make them more readable and clearer. Most common filters are product families, fiscal year and region but the user is able to make more slicers if they desire and if the data exists.
- **Master buttons:** Can be found in the top bar of the sheets. All the buttons and slicers of the selected sheet can be controlled by the user from the master buttons.

Figure 21: Controls examples (slicer, buttons, master button)

The updating process

The EPS KPI's Dashboard is updated monthly. *The instructions about how to do it can be found in the appendix E: The EPS KPI's Dashboard instructions.*

5.3 Implementation of the KPIs

5.3.1 Dashboard main page

5.3.1.1 Website traffic

KPI: Unique visitors to the product family pages.

Visualized by: Line chart and speedometer.
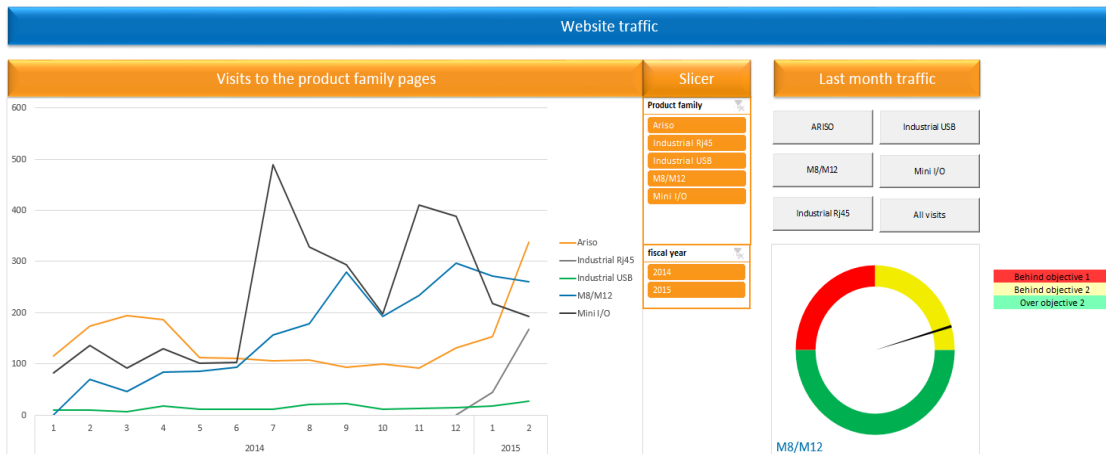
Figure 22: Website chart and speedometer

Description: The website traffic is implemented into the dashboard by making it into a chart that shows the website traffic per product family page per month. Also a speedometer has been made in order to compare the previous month's traffic to the average of previous year's. The chart and the speedometer can be sliced in order to only show the traffic for one of the families if desired.

The colors on the speedometer of website traffic are somewhat different than on the other speedometer. The red represents the previous year's monthly average as usual but the yellow is fixed to be double of that of the previous years. The green is, as usual, above the goal.

5.3.1.2 POP and POS

KPI: Point of Purchase (POP) & Point of Sales (POS) revenue.

Visualized by: Line charts and speedometers.
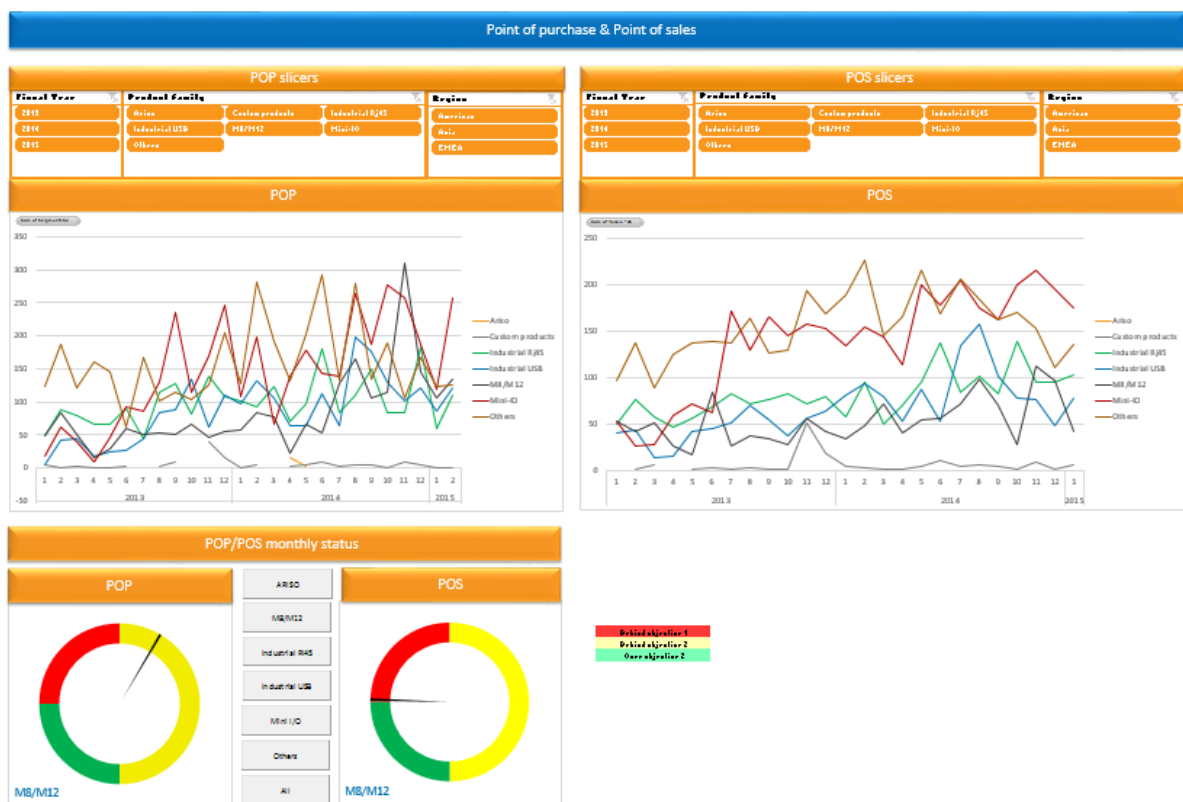
Figure 23: POP and POS charts and speedometer

Description: The POP and POS are implemented into charts that show the amount of revenue per month and which product family it comes from. These charts can be sliced by product family or by region.

Also POP and POS have speedometers where the previous year's average monthly revenue is compared to the previous month's revenue. The goals are defined using the expected growth of each product family.

5.3.1.3   Samples

KPI: Number of sample requests & sample shipments.

Visualized by: Line chart.
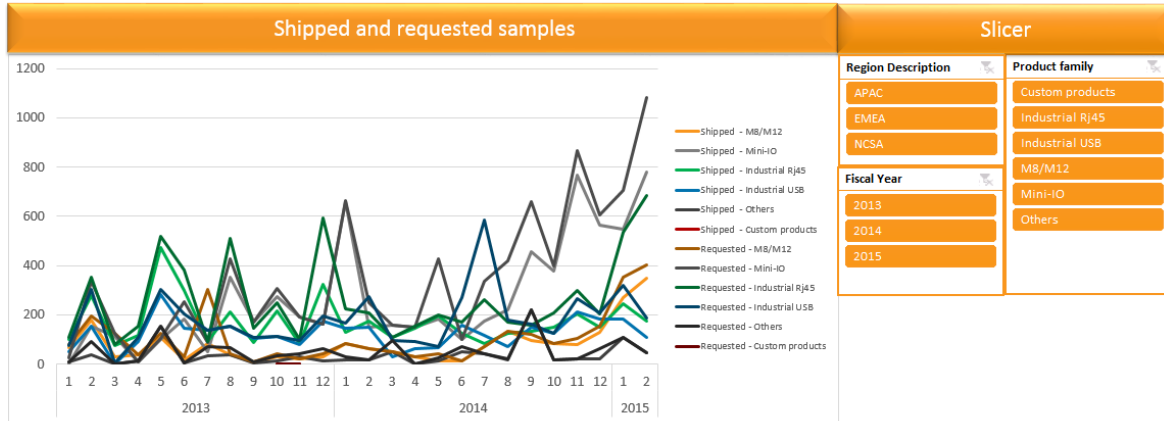
Figure 24: Samples

Description: The samples are implemented to show the amount of samples requested and shipped each month per product family. The samples can be sliced by product family and by region.

5.3.1.4   Customer complaints

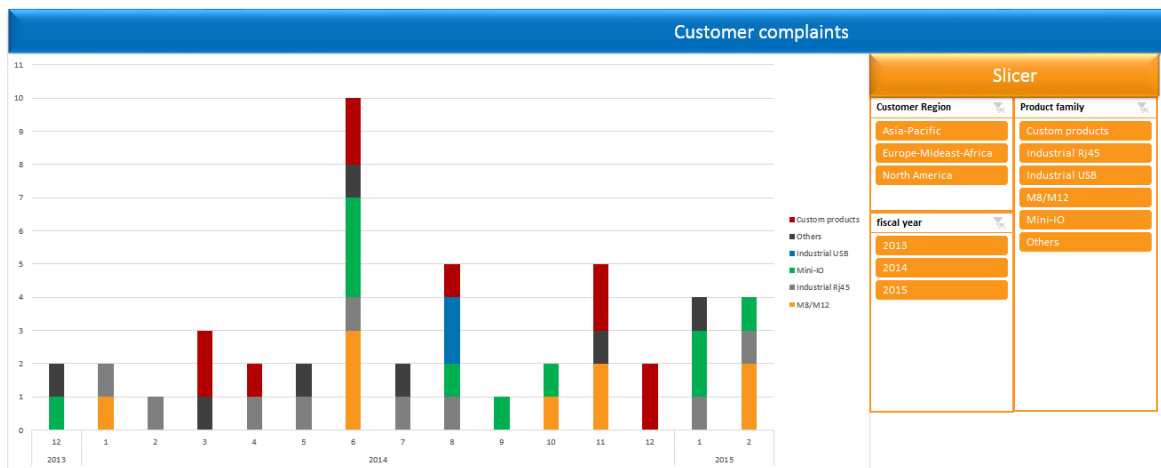**KPI:** Number of customer complaints.

Visualized by: Bar chart.

Figure 25: Customer complaints

Description: The customer complaints are implemented into the dashboard by showing the number of complaints per month and which product family is the complaint associated with. Also the samples can be sliced by product family and by region.

5.3.2 Dashboard pipeline pages

The pipeline visualization is identical for the opportunities on both direct and channel sales. Therefore only general explanation of the pipelines is given here. Both of the pipelines can be referred to it.

5.3.2.1 Current expected revenue

KPI: Expected revenue of opportunities.

Visualized by: Bar chart.
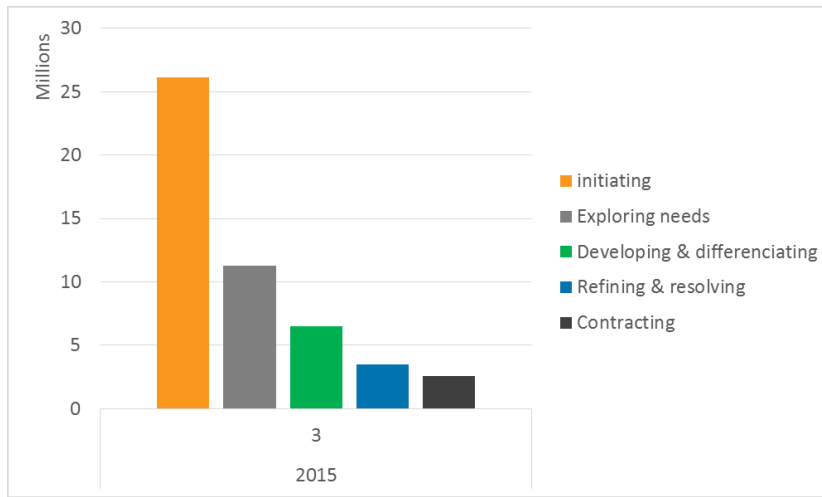
Figure 26: Current expected revenue

Description: The chart shows the current expected revenue per phase. This chart will show monthly snapshots of the sales process.

5.3.2.2 Current average expected revenue per phase

KPI: Average expected revenue per phase

Visualized by: Bar chart.
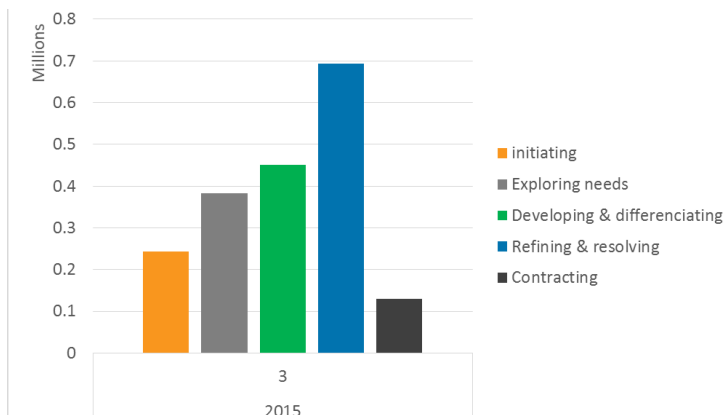
Figure 27: Current average expected revenue per phase

Description: The chart shows where on average the most valuable opportunities are in the sales process. This chart will show monthly snapshots of the sales process.

5.3.2.3   Opportunities pipeline

KPI: Expected revenue per phase and number of opportunities per phase.

Visualized by: Bar charts.
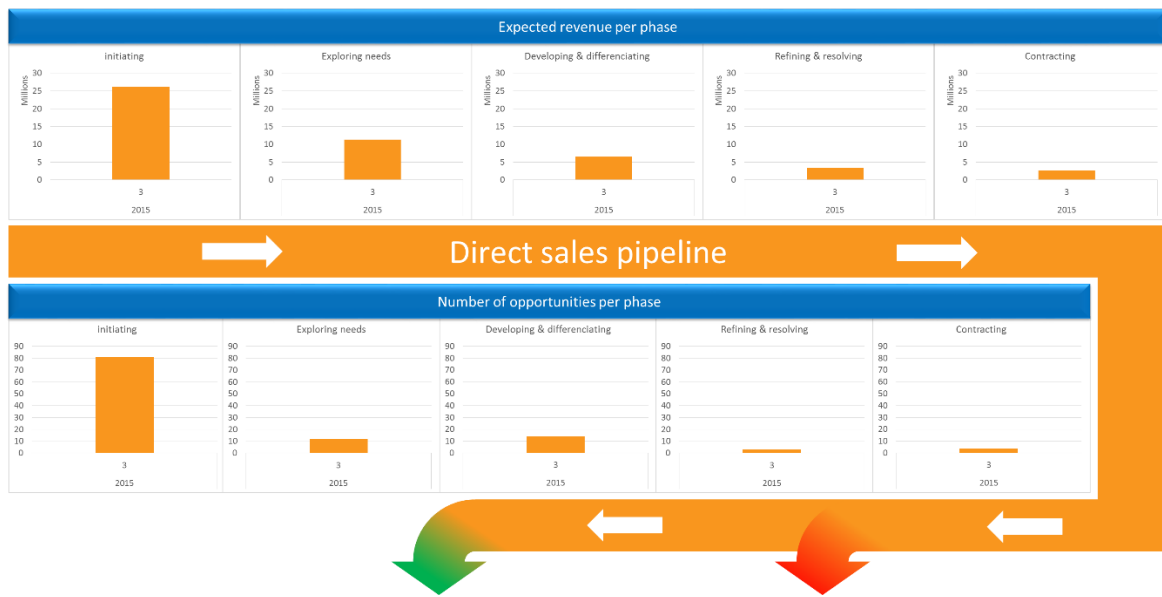
Figure 28: Opportunities pipeline

Description: The opportunities pipeline shows both the number of opportunities in each phase and its development as well as the expected revenue in each phase and its development during the previous 12 months. The charts in *figure* 28 do not have the historical data required to show the trends of number of opportunities and the expected revenue but in the future this data will be saved.

5.3.2.4 New, won and lost opportunities

KPI: Average expected revenue per phase

Visualized by: Bar charts.

Figure 29: New, won and lost opportunities

Description: The new and won opportunities show both the number of and the expected revenue of their opportunities per month in separate charts. The lost opportunities only show the number of lost opportunities per month.

5.4 Analysis of the first results

After receiving the first monthly report from the dashboard, a first analysis of the data has been made. This analysis has been made by studying the charts thoroughly in order to obtain a good insight on every KPI.

5.4.1 The main page

- **Website traffic:** The general trend of the website traffic for the field connectivity products has grown considerably. The traffic to the Ariso and Mini IO websites have the biggest growth

due to the increasing interest on these products based on the product life cycle in *figure 11*, *page 22*. On the other hand the Industrial Usb website traffic does not show any considerable growth. A relatively consistent growth for M8/M12 and Industrial Rj45 can be seen

The website traffic for the field connectivity products in December 2014 was about 170% of the monthly average of the previous fiscal year

For reference Appendix F: I. The EPS KPI's Dashboard charts.

- **POP and POS:** The billings and the resale for the Mini IO have grown considerably during the last two fiscal years. For the products in the mature phase in the product life cycle the billings and resale have been stable showing a slight growth during the same period. In the Industrial Usb case the billings and resale are decreasing during the fiscal year 2015.

  The billings and resale for the field connectivity products during the month of December 2014 was under the monthly average of the previous fiscal year. This situation could be consider as normal due to the Christmas period.

  For reference Appendix F: II. The EPS KPI's Dashboard charts.

- **Sample requests:** For the Mini IO and M8/M12 the number of sample requests have grown considerably since the beginning of the last year. For the Industrial Rj45 and Industrial Usb the number of sample requests have been consistent during the last fiscal year. It should be taken in account that Ariso does not have samples due to its high price.

  The number of requests have decreased considerably in December 2014. Based on the peak trend it is expected that next month the number of sample requests will grow again.

  For reference Appendix F: III. The EPS KPI's Dashboard charts.

- **Customer complaints:** The trend of the customer complaints for the field connectivity products has been steady during the fiscal years 2014 and 2015. The number of complaints can be considered as non-alarming.

  For reference Appendix F: IV. The EPS KPI's Dashboard charts.

5.4.2 The Direct sales pipeline

Due to the recent creation of the historical database for the opportunities the historical trends of the expected revenue of the opportunities and the number of opportunities in each phase are not completed yet. The trends will be automatically available in the future months.

Subsequently the following analysis goes as deep as it is possible with the available information at this point.

If the expected revenue and the average expected revenue of the opportunities per phase are compared it can be seen that the biggest opportunities are pushed forward avidly. Despite the biggest amount of the expected revenue is in the first phases of the process, the biggest opportunities have been pushed forward.

The number of won opportunities during December 2014 is one and the number of lost ones is three.

Ten new opportunities have been created in December 2014. The number of new opportunities last month has been above the average of the monthly opportunities created during the current and last fiscal year. Despite the big amount of new opportunities it should be mentioned that the expected revenue of these is smaller than the previous months.

So the net amount of opportunities in the process has been increased by four.

For reference Appendix F: V, VI, VII, VIII, IX, X. The EPS KPI's Dashboard charts.

5.4.3 The channel sales pipeline

The same lack of historical data mentioned in the direct sales pipeline analysis is also present in the channel pipeline. For more information refer back to 5.4.2.

In the channel pipeline it is apparent that the data gathered is not at the same level as in the direct sales because there are a lot more opportunities but the later stages of the sales process are practically empty. This may be caused by few reasons. Probably the late phases in channel sales can go through so quickly that it is not documented. Another possible reason is that sales managers are not as keen on updating the sales process as they are in direct sales.

In spite of that it can be said that also here as in direct sales the more profitable opportunities are pushed forward more avidly just by taking a look in the difference in the amount of expected revenue in each phase and comparing it to the average expected revenue per phase. The largest expected revenue per phase is in initiating but by far the largest average expected revenue is in differentiating and developing although it is the second phase in the sales process.

It is really difficult to make any conclusion about the won and lost opportunities in channel sales. The numbers seen rather random and they have big differences between months. It almost seems like someone does not update the data every month but in chunks once in a while. Only consistency can be seen in new opportunities and their number seems pretty static.

For reference Appendix F: X, XI, XII, XII, XIV. The EPS KPI's Dashboard charts.

6 Further improvements and recommendations

6.1   General recommendations for TE

TE Website improvements

TE's website is doing well compared to the competitors but there is always room for improvements. Based on 2013 EPS business plans suggestions the parts that are lacking most are the picture search and the pictures of similar products in the product pages. Also the join-in-order tool is not implemented but that is caused by the decision of not going into the distributors market.

The picture search is a good visual way to guide less experienced customers to the products that they need. This feature exist in te.com website but the only way to find it is through a distributor site which is concerning. The fact that this kind of assets are made but not fully utilized is not good business.

At the moment the suggesting of similar products exist on the site but it is not done well. In the product pages there is a link where one can find similar products to the one that they are looking at but it would be more informative and accessible if the short descriptions of the similar products and the pictures of them would be visible at the product page right away.

Marketing improvements

Training videos about different products technical aspects and functionalities are lacking in the Industrial communications business unit. These videos are made for the sales persons of distributors to give basic knowledge about TE's products they are selling. These videos are used by many other business units. This is concerning because the channel sales is an important part of TEs success. *For reference look at the interview with Michiel Boermans. Appendix A: II. The interviews.*

Search engine marketing is not being used by TE as a way of promoting their products. The 2014 EPS team considers that search engine marketing could be very useful tool in order to attract more traffic to te.com website and create interest in TE's products. On the other hand search engine marketing can be a costly action to take. Still this option should be considered due to the fact that some of TE's competitors are using it.

Meeting with customers is a traditional way of improving relations with the most important customers. The 2014 EPS team could not find any evidence that there is a consistent plan on socializing with the most important customers even though TE probably does some activities with relevant customers.

PIC improvements

The PIC is well promoted in te.com website but the information about its purpose is not clear enough. PIC receives many calls concerning pricing information and lead times even though they can only answer technical questions about the products. *For reference look at the interview with Bart Broeren. Appendix A: IV. The interviews.*

The 2014 EPS team came up with two ways to tackle this problem:

- Further develop the role of PIC to cover the pricing and more general information about the products.
- Create a different contact forum for the questions that are not related to technical aspects where possible customers should contact when they face problems.

6.2 KPI improvements for the tool

The suggestions in this chapter are about the KPIs that the project team considers relevant based on the study and interviews made but for some reason the KPIs cannot be measured or the data retrieval is too exhausting to make in order to be efficient.

6.2.1 Website KPIs

Number of unique visits to catalogue pages per product family

Suggested by: *The EPS team*

Data source:

Description: Track the number of unique visits to the products in each product family.

By keeping track of the unique visits to the products of each product family more practical information about the interest in the products can be seen compared to the visits to the product family pages.

At the time of the project the Adobe analytics cannot track the visits to any catalogue pages for unknown reasons. This may change when the te.com 2.0 comes out and the possibility to add this KPI to the dashboard should be reviewed.

Time period: The data will be tracked for the previous two years.

Number of unique visitors who go to distributor sites via the product *catalogue pages*

Suggested by: *The EPS team*

Data source:

Description: Track the number of unique visits who go to distributor sites via catalogue product pages.

By keeping track of the unique visitors who go to the distributors' site through the catalogue product pages the interest of smaller customers can be seen compared to all the traffic to the catalogue product pages. The information of this KPI should be easily comparable to the number of unique visits to catalogue product pages per family in order to see the difference in interest for both sales channels.

At the time of the project the Adobe analytics cannot track the visits to any catalogue pages for unknown reasons. This may change when the te.com 2.0 comes out and the possibility to add this KPI to the dashboard should be reviewed.

Time period: The data will be tracked for the previous two years.

6.2.2 Direct and channel sales

The projects lost per phase.

Suggested by: *The EPS team, Ruud van den Brink*

Data source: Salesforce.com

Description: Keep track of the number of projects lost per phase.

By keeping track of the phase in which most of the projects are lost is important in finding out if there are flaws in some phase in the opportunity management. When the phase or the phases that have most leakage are revealed the management team can focus in developing that phase in order to have higher win rate in total.

At the time of the project the salesforce.com does not have the data required to determine the phase lost for each project. In order to solve this limitation a salesforce expert or the salesforce customer care should be contacted to find out if it is possible to keep track of this information. This is possibly the most important KPI that is not present in the dashboard.

Time period: The data will be tracked for previous year.

Expected revenue of lost phases

Suggested by: *The EPS team, Ruud van den Brink, Eric Leijtens*

Data source: Salesforce.com

Description: Keep track of the expected revenue lost

By keeping track of the expected revenue lost allows to know if how big the lost projects are.

At the time of the project the salesforce.com does not have the data required to determine the phase lost for each project. In order to solve this limitation a salesforce expert or the salesforce customer care should be contacted to find out if it is possible to keep track of this information.

Time period: The data will be tracked for the previous year.

Project probability

Suggested by: *Michiel Boermans*

Data source: Salesforce.com

Description: Keep track of the project probability.

By keeping track of the project probability the expected revenue can be more accurately assessed because the sales people have better idea whether the project is likely to be successful in addition to the expected revenue. For example if theoretically the project probability is 50/50 in all the projects the expected revenue of all the projects should be halved and the true revenue to be received from the projects can be seen quite accurately.

It is possible to follow the project probability in salesforce.com. Nonetheless only 10-15% of the projects were assessed. The number is so low that no conclusions can be made. To fix the problem the management should discuss with the sales team in both direct and channel sales whether it is wise to start keeping better track of the project probability or not.

Time period: The data will be tracked for the previous year and two previous years.

Price erosion and volume of sales

Suggested by: *Luuk Nouwens*

Data source: TE pricing system

Description: Keep track of the price erosion and volume of sales.

By keeping track of the price erosion and volume of change it is easier to see how the lifecycle of the products are developing and if the revenue from the products is growing. If the price erosion is smaller than the volume of sales the revenue is rising.

At the time of the project it is possible to keep track of the price erosion and volume of sales but the TE pricing system works so that retrieving the data takes a long time and inserting it to the dashboard database has many possible points for errors to happen. This KPI should be reconsidered to be put in the dashboard when the new pricing system is implemented.

Time period: The data will be tracked for the previous year and two previous years.

7 Conclusion

The objective of the project was to find the relevant KPIs of the sales process and create the measurement tool that visualizes them.

First of all based on the EPS 2013 business plan report a general study was done in order to know which activities had been carried out by TE and its competitors to reach new customers.

In general TE has implemented most of last year's suggestions about the website and the marketing actions, except for the Join-in-order-tool because TE does not want to compete with its distributors.

After a thorough investigation and numerous interviews the sales process was figured out and visualized. From this visualization eight indicators were chosen. These are the most important indicators that can be measured, divided in direct sales and channel sales, and the general ones which contain website traffic, billings and resale, samples and customer complaints.

The main benefit for TE of this project is the EPS KPI's Dashboard that allows the managers to track the impact of the actions in the sales process. The greatest advantage is the large amount of information shown simultaneously in the dashboard. The dashboard shows all the indicators together making it possible to compare them easily instead having to look at different systems. Using the historical trend created by the dashboard the managers are able to make a forecast for the near future.

Appendices

A Appendix: The interviews

I   Distribution sales manager: Jeroen van Eendenburg

Interview conclusion

TE has changed its distribution policy. At the beginning, when TE was still called Tyco Electronics. Tyco electronics was directly connected with its customers. Indeed, TE was early involved in the projects of its customers in order to develop specialized products for each customer. This strategy was supposed to make customers loyal but serving the smallest orders made TE inefficient. TE expected that theirs customers would not do business with TE's competitors. Unfortunately, the fact that TE's engineers were very involved in project of their customers implied that TE could not focus enough on its Research & Development. However, research and innovation are very important to respond to the future demand of customers. That is why the company changed its strategy.

In order to let its technical employees focus on development of new products, TE decided to sell its products by distributors. The distributors were supposed to create the demand. The distributors have become very important stakeholders due to an important amount of TE's incomes come from its distributors. With this strategy TE deliver directly the biggest orders and use distributors for the smaller ones. The result of that action was not as good as it was expected and TE lost a considerable amount of smaller customers.

Some KPIs can be interesting to track the progress of the Go-to-Market strategy concerning the IFD (Industry Focus Distributors) channel of TE.

Suggested KPIs

- Project probability (e.g.: likely, "hot", "cold", "50 50" which means 50% chances to start a project).

The amount of the earnings from customer's project is important for TE, but it also important to care if these projects will start or not. This KPI enables to be aware of opportunities to increase sales and turnover.

- Project start date

The main advantage of this indicator is to predict when there may be an increasing sales.

- Win/loss

Open phase: Design is not definitely defined

Closed phase: One cannot do any changes on a product design

II   Sales and marketing analyst: Michiel Boermans

*All the question are referred to Field Connectivity (Mini-IO, Industrial RJ45, M8/12, Ariso)

1. **How would you describe the relationship between the smaller customers (C, D accounts) and TE?**

TE doesn't directly interact with the C and D customers but only with the distributors.
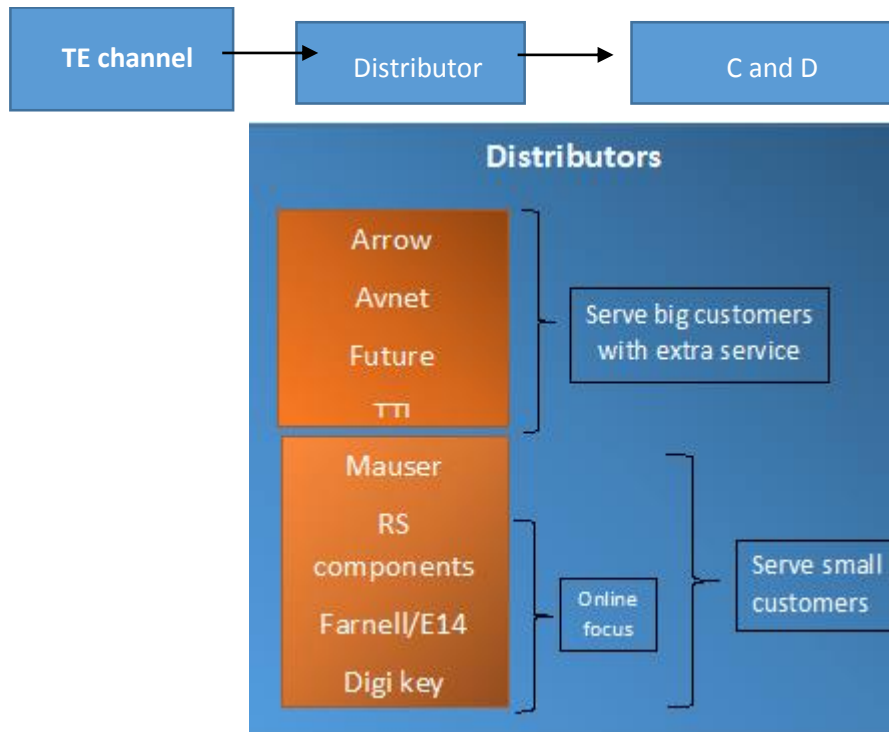
2. **What marketing activities does TE use in order to reach new customers? (Online ads, reviews…)**

TE has a newly formed team developing the marketing for smaller customers. They are responsible for updating micro sites on the distributors' websites and they are setting up an email campaign with the help of distributors. One important part of the marketing is also social media coverage that is greatly boosted by the distributors who have wider audience in the social media then TE itself. The last part which is not directly marketing is the online training for the sales persons of the distributors. Though this is missing from the field connectivity products.

3. What message should TE promote through its marketing campaign to reach new C, D customers and to increase sales?

Global themes

Internet of things (example)   Other theme   Even one more theme

Industrial

Optimizing

Stories

Product   Product   Product
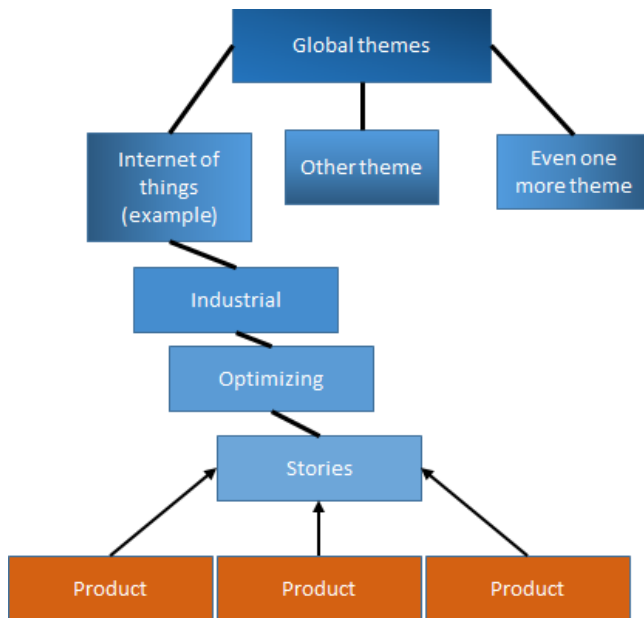
This is the tree on how TE creates timely stories to promote their products to different industries through global and popular themes. The message is created through the global themes and stories are created on new innovations where the products are used.

4. What marketing mistakes could result in lost sales?

Big changes in marketing channels has caused lost business in the past (transition from TAM to TAM&DTAM). At the moment the biggest cause of lost sales in his opinion was the difficulty of doing business with TE. With this he meant that TE is slow to respond to customers and our lead times and operational actions are rather slow compared to competitors.

5. What do you think the competitors do better than TE in marketing?

The marketing of TE is extremely good in his opinion and at least on the same level with the competitors. Here he sees the same lack of ease of doing business with TE as was with the last point. He also mentioned that internal preparation per business unit is lacking when releasing new products. Also many of the business units make short training videos about their products for distributors' sales persons to watch and understand the functionality and technical aspects of different products. For example updating e-commerce in Chinas region is slow to non-existent.

6. **What are your top five leading indicators to check the impact of marketing actions on the sales?**

Tracking the sales of new products both POP to distributors and the POS to end customers. The difference and the development.

Measure sales before and after marketing activities. Is there any difference?
Where leads come from (salesforce)? Data does not exist yet…

7. Could you rank these five points in order of importance for the smaller customers? (highest(1) to lowest(5))

Price	**2**
Quality	5 (The quality is taken for granted)
Deliver time	1
Service	3
Short selection process	4

8. Which part of the sales process is the most important to increase sales? (e.g. leads, prospects, qualifying, samples, offer, close, keep)

Portfolio communication. How to find and navigate the portfolio of products.

Quickly delivered samples into fast offer with short lead-time. In other word ease of doing business.

9. Conclusions

Overall marketing in the company is doing well. TE uses many different channels and is about to spread to new marketing opportunities. They have a designated team that is working only in the channel marketing to improve and develop further marketing channels for the company. At the moment they are focusing on the distributors' micro site content and the upcoming email campaign with the help of distributors. Also the online training for the distributors sales persons is extremely good way of making the TE products well known.

The downsides of the marketing is that it's only limited to online environment. Still it makes some sense because it is the cheapest solution in reaching many possible customers. We found out that the internal preparation in launching a new product is somewhat lacking. Some of the product managers don't update the e-commerce listing in time if at all. This is a major problem when launching a product and it should be dealt with as soon as possible.

The biggest continuous problem TE has is the lack of ease of doing business with TE. This means that TE's responsiveness, lead times and other operational actions take too long and this results in lost sales. The interview suggests that one should focus in delivering the requested samples to possible customers as fast as possible. But this is not enough every step after sending the sample should be done quickly in order to keep the customer engaged in the sales process.

III   Marketing analyst: Mieke van der Kallen

After the meeting with the marketing analyst for the distribution market channel in the EMEA we extract some conclusions:

- Promoted distributors are TTI and MOUSER.
- As Michiel Boermans did she suggested us to analyze the difference between the POP and the POS.
- We got to know the internal stakeholders in the distribution channel:
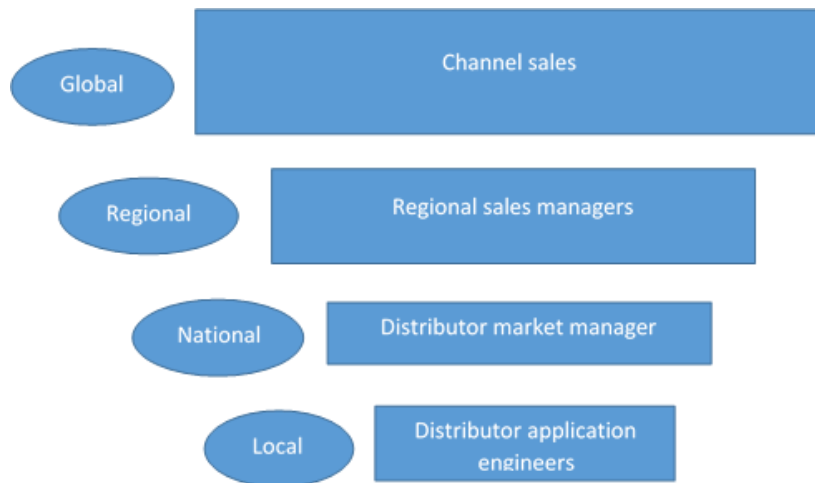
- We should speak with a DMM.
- She suggested to look at the DAE projects as a leading indicator
- Investment on marketing in channel
- Use Trendsite to get POP and POS data

IV   Manager product information: Bart Broeren

What does PIC do?

PIC answer to the technical questions that customers and possible customer have. 90% of the questions come from small customers and 30% of those are asked via distributor on behalf of a customer. 40% of the questions come by e-mail, 30% by the website chat and 30% by phone. At the moment chat is becoming more and more relevant and the use of phone is declining. The PIC also gets many calls that are about non-technical things about the products such as the pricing and MOQ. The PIC also considers all their customer to be equal so the C and D customers get the same treatment as distributors, A and B customers. The PIC is not able to answer these questions due to the fact that PIC gives only technical information and the caller should most likely call to a distributor since majority of the callers are small customers. This does not give positive picture of TE because the possible customers are shoved somewhere else to find the information they need.

At the moment the goal of the PIC is to renew its purpose and take a role also as a lead creator and converter. Normally most of the leads are not pursued quick enough or at all and the PIC could change that. For example all the calls about non-technical thing are leads even the customer can't get the answer they need. The PIC should be able to guide them somewhere where the customer gets service for sure. Also warm leads are not pursued in the company really effectively. This is due the fact that the sales people are more likely to serve the customers who are extremely likely to buy and in big amounts. Here the PIC could be able to contact the leads who, for example, have ordered a sample before and try to develop the customer relationship.

What KPIs should we use?

The most important KPIs we should follow are in the sales pipeline. The order of the steps that could be used is as follows: Website traffic, PIC contact (warm lead) sample request (hot lead), opportunities etc.

Number of samples sent

This was the most important and practical indicator in Bart's opinion because it shows a certain kind of interest in the products that are sampled.

Activities under development in PIC that could be useful

PIC survey reports

Survey reports are done when the customer has received the information they desire from PIC. The survey is simple and contains two questions: How many times you had to contact PIC to get the information you needed how long did it take to get answers. These reports will in the future include witch GPL's were discussed about with the customer. This could be an early indicator of a sale.

Lead generation of PIC

At the moment the PIC is trying to create leads by contacting customers who have ordered a sample at some point in the past and discuss with them about the applications that the parts are used in to make the lead into a hot lead. If this works out they plan to extend this customer contacting first into exhibition leads and afterwards to other warm leads, to the pricing requests that they get, and to other hot leads. The goal of the experiment is to convert more leads into customer in the long time span. In these contacting the PIC is also planning to follow the GPL's that the customer is interested about. In the future this could become a leading indicator for our tool if it works out.

Things to improve according to Bart

Lead conversion by channel sales.

Led conversion in channel sales in the long term is not very good according to Bart. He says that most of the sales team effort goes to short term almost certain cases. This is a huge missed opportunity that has a lot of long term potential.

Commercial information for C and D customers

Many of the calls to the PIC are about pricing of the products and the MOQ. These are questions that the PIC cannot answer because this is the responsibility of the distributors. Still just by guiding the customer to a distributor does not give a good impression about TE and is poos customer service. Therefore there should be some kind of commercial information center inside of TE. Also the distributors have problems converting long term unsure leads to customers and many of the customers guided to distributor are lost at this phase according to Bart.

V   Product pricing analyst: Luuk Nouwens

What do you do?

Works with global product managers (Eric Leijtens) to understand the go to market strategy of each product line and based on that create pricing strategy for the products. He also keeps track of the product life-cycle and competition status to help him create the pricing strategy.

How does the field connectivity pricing work?

The prices are pre-determined in accordance to the general market. For example we want to sell our products a little over the general market prices but we can set our lowest price slightly under the general market price depending on the competition and the product life-cycle. Naturally we want the best price possible but because of competition we may have to go to our lower price points.

Leading indicators

- Price erosion
- Product volume change
- Response time (channel)
- Price change (erosion) compared to product volume change.

B Appendix: Stakeholders map

I The stakeholders map
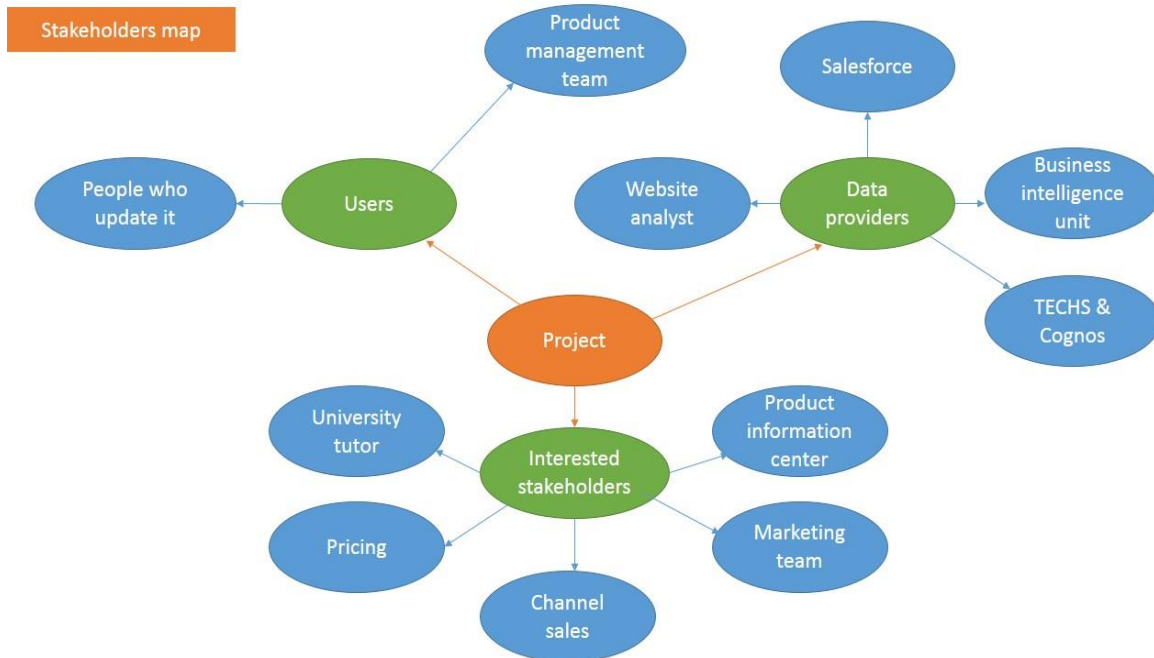
II The data sources

Salesforce

Company: Salesforce Inc.

Website: salesforce.com

Key people & founders: Mark Benioff, Parker Harris

Salesforce.com is a cloud computing and social enterprise software-as-a-service (SaaS) provider based in San Francisco. It was founded in March 1999, in part by former Oracle executive Marc Benioff.

Of its cloud platforms and applications, the company is best known for its Salesforce customer relationship management (CRM) product, which is composed of Sales Cloud, Service Cloud, Marketing Cloud, Force.com, Chatter and Work.com. Sales Cloud manages contact information and integrates social media and real-time customer collaboration through Chatter. Service Cloud includes a call center-like case tracking feature and a social networking plug-in for conversation and analytics. Marketing Cloud offers Radian6, a social media monitoring and marketing application. Force.com, the

company's platform-as-a-service (PaaS) product, allows software developers to create Salesforce.com add-on applications. Work.com offers Rypple, a social human resource (HR) performance management platform.

Adobe analytics

Company: Adobe Systems Inc.

Website: Adobe.com

Founders: Charles Geschke, John Warnock

The software: Adobe analytics

Adobe Systems and the Information Age have been perfect partners for more than 25 years. Since 1982 Adobe has been delivering award-winning software and technologies that have redefined and advanced business and personal communications.

Based in San Jose, Calif., Adobe is one of the largest and most diversified software companies in the world. Its cutting-edge solutions are used in every corner of the globe and in nearly every industry, from publishing to government to financial services to education to telecommunications. Customers include industry leaders such as Nokia, Yahoo!, Deutsche Bank, Hearst Magazines, and Wal-Mart and major governmental agencies such as the U.S. Internal Revenue Service. Adobe also works with an extensive network of solution providers who develop customized applications that meet a wide range of business needs.

Adobe analytics is a software that keeps track of website visits and interactions. In analytics you can make different reports on page visits and gather some information about the visitors. E.g. where do they come from and have they visited the site before.

IBM Cognos

Company: IBM

Website:
www.ibm.com/software/nl/analytics/cognos/

Founders: Alan Rushforth, Peter Glenister

The software: IBM Cognos Business Intelligence

IBM Cognos Business Intelligence turns data into past, present and future views of your organization's operations and performance so your decision makers can capitalize on opportunities and minimize risks. You can use these views to understand the immediate and downstream effects of decisions that span potentially complex interrelated factors. Consistent snapshots of business performance are provided in enterprise-class reports and independently assembled dashboards based on trusted information. As a result, non-technical and technical business intelligence (BI) users and IT alike can respond quickly to rapidly changing business needs.

C Appendix: Management documents

I   The risk analysis

A risk is the possibility of suffering harm or loss due to an undesirable event. In our case, we will take as a risk every possibility that could make the project fail because it does not fulfill the initial expectations or it is not profitable.

The Size of a risk gives an idea about its importance and if it is needed to deal with it and how. It is ranked from 1- 16 which 16 has a highest risk and 1 has the lowest risk. The size of a risk can be calculated multiplying the likelihood of occurrence and the consequence for the project.

The consequence   (impact or effect) for the project is the maximum harm that would occur if the risk becomes a fact, with 1 being low harm and 4 being high harm.

Likelihood

captures the idea that something is likely to happen or to have happened. It ranks between 1 and 4, with 4 being the absolutely certainty that the event will occur and 1 being absolute certainty that the event will not occur.
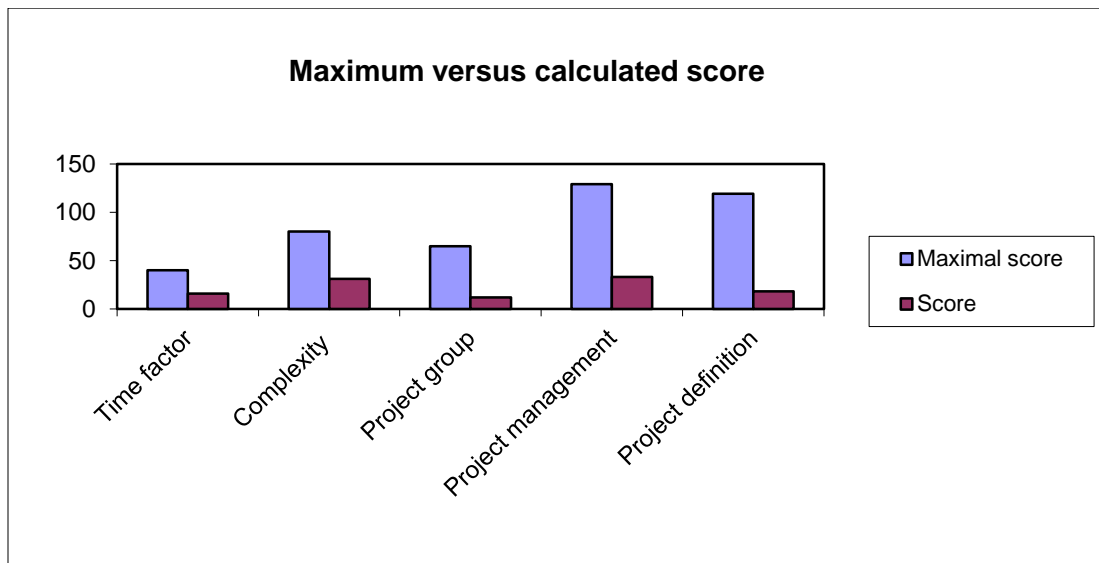
As a conclusion of the chart we can assume that the biggest risks are the complexity of the project and the project management. Due to the fact of our poor background in project management we will have to be aware of the different risks. Besides that, complexity is also a challenge for the project team.

Risk	Consequences	Likelihood	Risk size
1. Wrong planning	4	2	8
2. Running out of time	4	2	8
3. Incorrect research	3	2	6
4. Bad design of the questionnaires	2	2	4
5. Changes in demands	4	1	4
6. Bad design of the Go-to-market progress tracker	4	2	8
7. Errors analyzing early results	2	2	4

1. *Wrong planning*

A bad design of the plan will have terrible consequences for the project. Problems with task definition, duration, order, number of tasks etc., can guide the project in the wrong way.

Solution: Check the plan regularly, change if it is necessary. Spend enough time making a good plan.

2. *Running out of time*

Finishing a project on time is as important as make it according to the customer demands.

Solution: Following the initial plan and marking some milestones during the project time you will have information about the timing of your project.

3. *Incorrect research*

A wrong research will drive the project in the wrong way. It will cause a loss of time because after a bad research the results of the go-to-market progress tracker will not be useful for the company.

Solution: Getting feedback from the project manager will guide us in the right direction during the research of the data.

4. *Bad design of the questionnaire*

The interviews can provide the project team with a lot of useful information about the customer experience & service and in addition the employees will give their own opinions of the company strengths and weaknesses. A bad design of the questionnaires won't allow the team to analyze them and suggest how to improve the customer relations management.

Solution: Prepare the questionnaires before interviewing the customers and employees. Discuss them with the project manager in order to make them useful.

5. *Changes in demands*

Changes in demands can cause the failure in the project. A big change in a demand can cause a lack of time which leads the project to be out of time.

Solution: Making a good Project Agreement.

6. *Bad design of the EPS KPI's dashboard*

The complexity in the design of the measurement tool is a risk because it can cause delays in the rest of the tasks.

Solution: Planning the design carefully and communication with the project manager will reduce the risk of a delay or failure in this key task.

7. *Errors analyzing the early results*

A bad analysis of the first results provided by the tracker can drive the team into making a wrong conclusion of the project.

Solution: Contact with the company data experts who can help the team to analyze them in a right way.

II   Project planning

It should be consider that the first week of October is the week 1 of the project.

ACTIVITY	PLAN START	PLAN DURATION	REAL START	REAL DURATION	PERCENT COMPLETE	RESPONSIBLE
Study last year's report	1	1	1	1	100%	R.G.M, A.K, E.T, S.T
Study the competitors	1	1	1	2	100%	A.K, S.T
Study G2M progress excl. website	1	1	1	3	100%	R.G.M, E.T
Analyse Website progress	2	1	2	1	100%	A.K, S.T
Marketing & sales analysis	2	1	1	2	100%	R.G.M, E.T
Analyze the current state of TE	2	2	2	4	100%	R.G.M, A.K, E.T, S.T
Decide the relevant data from the website	3	2	2	2	100%	A.K, S.T
Analyse the website data	4	2	3	3	100%	A.K, S.T
Create interviews	3	1	2	1	100%	R.G.M, E.T
Interview customers, distributors and employees	4	1	4	5	100%	R.G.M, E.T
Research customer experience based on interviews	5	3			0%	R.G.M, A.K, E.T, S.T
decide the datapoints for the KPI dashboard	8	1	4	4	90%	R.G.M, A.K, E.T, S.T
Create the KPI dashboard	9	4	4	9	100%	R.G.M, A.K, E.T, S.T
Analyse the first results	13	1	13	1	100%	R.G.M, A.K, E.T, S.T
Report of last year's EPS group suggestions	3	1	5	1	100%	R.G.M
KPIs report	9	1	11	1	100%	R.G.M
Results report	14	1	13	1	100%	R.G.M
Final report	1	15	1	14	100%	R.G.M, A.K, E.T, S.T

PERIODS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Legend: Plan — % Complete — Actual — Actual (beyond plan) — % Complete (beyond plan)

avans hogeschool

TE connectivity

D Appendix: The field connectivity products table

Industrial RJ45

- ✓ 1/4 Turn Positive Lock Ethernet Components
- ✓ 1/4 Turn Positive Lock Ethernet Connector
- ✓ Industrial Ethernet Cables
- ✓ Industrial Ethernet Connectors
- ✓ Industrial Ethernet outlets
- ✓ Industrial Ethernet Cable Assemblies
- ✓ Threaded Sealed Ethernet Accessories
- ✓ Threaded Sealed Ethernet Connector

Custom products

- ✓ Custom Ethernet Products

Industrial USB

- ✓ Industrial USB Connector
- ✓ Industrial USB Products

ARISO

- ✓ Contactless Connectivity

M8/M12

- ✓ M12 Connectors
- ✓ M8 Connectors
- ✓ Datanet Industrial - MEFA Cable Assy's
- ✓ ASI bus accessories

Mini I/O

- ✓ Industrial Mini I/O Products

Others

- ✓ ASI Bus Inserts
- ✓ Sealed CPC Ethernet Connector
- ✓ TRIAD 01
- ✓ Z-PACK 2mm RS Right Angle Pin Assembly
- ✓ Industrial Control Connector Accessories
- ✓ Scalance
- ✓ Power Mix Connector System
- ✓ Sealed CPC Ethernet Components
- ✓ Industrial Ethernet Tooling

E   Appendix: The EPS KPI's Dashboard instructions

I   The structure of the dashboard

The EPS KPIs dashboard tool is separated into two workbooks. These are called:

- The_EPS_KPI's_Dashboard; this document includes all the charts, speedometers and visualizations of the data.
- Dashboard_Database; this document includes the data without any of the charts or visualization.

The dashboard is separated into three different sheets. These are: Db_main, Db_Direct_Pipeline and Db_Channel_Pipeline.

The Db_main contains the information about the website traffic, POP and POS information, the samples and customer complaints.

The Db_Direct_Pipeline and Db_Channel_Pipeline contains the opportunities of direct and channel sales pipeline. The amount of opportunities and their expected revenue has been visualized in the sheets to represent the sales process.

II How to use the dashboard

The dashboard has a navigation bar on the top of it that makes it easy to navigate between the different sheets of the dashboard. In the navigation bar the master button, that will be introduced later, can also be found.

Picture 12: the navigation bar

The dashboard has many functionalities that make the data more readable and the dashboard as a whole more usable. These functionalities are:

- Charts
- Speedometers
- Controls
    - Buttons
    - Slicers
    - Master buttons

Charts

Charts are the main way of visualizing the data. Most of the charts show the development of a KPI that has been mentioned above. There are two different kinds of charts in use. These are:

- Bar charts
- Line charts

Speedometers

The other tool to visualize the development of the KPIs is the speedometers. These show the last year's average monthly numbers compared to the last month's numbers. The speedometers also show the objectives on three different levels:

- **The red:** which means that current situation is below last year's monthly average.

- **Yellow:** the last year's monthly results have been met but the goal of the year has not been reached.

- **Green:** the monthly goal has been reached.

M8/M12
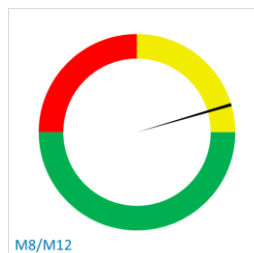
Tip: Occasionally the speedometers won't update when you change the selection at the dashboard. This is because the options of updating of the charts has changed for some reason. To fix this you have to go to File->Options->Formulas and change the workbook calculations to Automatic.
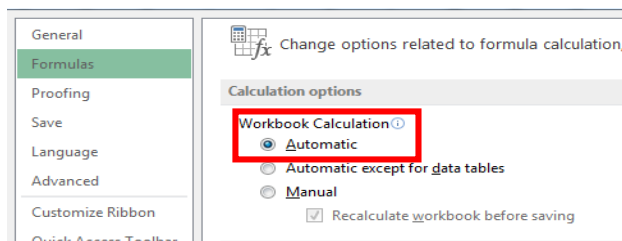
Controls

Controls have been created in order to make the data more readable and for the user to be able to only see the data they want to. The controls are:

- **Buttons:** are used to control the speedometers. Allowing the user to select the product family they are interested in.
- **Slicers:** are used to filter the amount of information shown in the charts to make them more readable and clearer. Most common filter are product families, fiscal year and region but the user is able to make more slicers if they so desire and if the data exists.
- **Master buttons:** these can be found in the top bar of the sheets. All the buttons and slicers of the selected sheet can be controlled by the user from the master buttons.

Product family		M8/M12	Mini I/O	
Ariso				
Industrial Rj45		Industrial Rj45	All visits	All
Industrial USB				
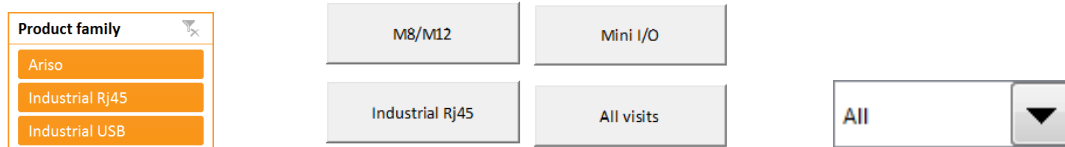
III   How to update the dashboard database

In order to update the data contained in the database it is necessary to have access to the following TE software:

- Cognos
- Salesforce
- TECHS
- Sample room

Also the following data sources are used:

- Adobe analytics
  > Contact: Van Gerwen, Rob ('s-Hertogenbosch, Netherlands)
- POP & POS (Cognos)
  > Contact: Santosh, Nidasesi (India)

To update the data you only have to modify the worksheets in the excel file called: Dashboard_database.xml (called database from now on). And for updating the dashboard, the database and the dashboard should be in the same folder in your computer. Finally upload the database and updated dashboard to the SharePoint (http://myteams.connect.te.com/sites/eps_dashboard). The instructions about how to update the dashboard can also be found in video format.

To update the website data you have to get the website traffic reports from Adobe analytics or you need someone to run the reports for you. You need reports for the following URL's (these may change when te.com 2.0 is launched):

- ARISO: http://connections.te.com/ariso

- Industrial RJ45: http://www.te.com/en/product-launch/industrial-rj45.html

- Industrial USB:
  http://www.te.com/catalog/menu/en/24505?BML=10576%2C17560%2C17559%E2%80%A6

- M8/M12: http://www.te.com/en/product-launch/m8-m12.html

- Mini I/O: http://www.te.com/en/product-launch/mini-io.html

When reading the reports you must first check that it is the right report. To do this you have to check that the timeframe of the report is correct and that the report is about the right page. Next you copy the total traffic to the website from the bottom of the report.

Next you copy the number of overall unique visitors from the bottom of the report.

Next you go to the database and "website" sheet and paste the overall unique visitors to the first empty row in the column A. Next you have to write the name of the product family of the number of visits to the column B on the same row. The fiscal month and the fiscal year will be updated automatically. Next you just do the same for all of the product families. Lastly SAVE THE DATABASE.

The first empty row

Paste the overall unique visits

Write the name of the product family
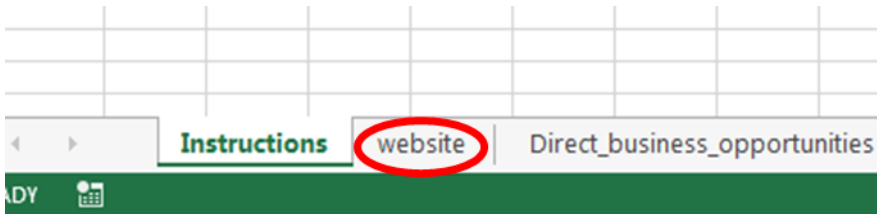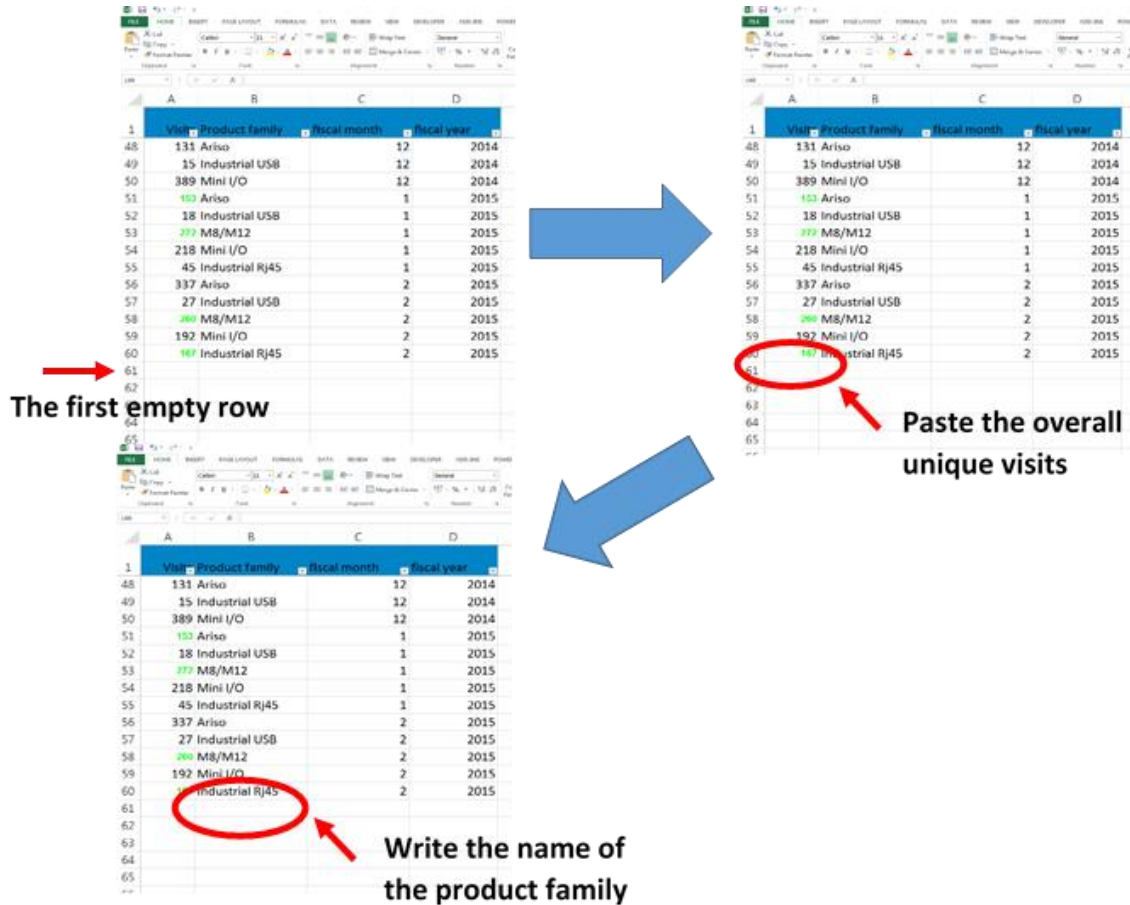
How to update the business opportunities information

- Direct business opportunities
- Channel business opportunities

Direct and channel opportunities come from two separate salesforce.com reports, one for each of them. The method shown here will use salesforce.com add-in of excel but you can also search for the reports from salesforce.com and export them as excel files and copy them to their designated worksheets of the database.

First you have to go to the worksheet you want to update. In this case either Direct_business_opportunities or Channel_business_opportunities. Next you must delete all the old data on the worksheet. Select all the cells in the worksheet by either pressing Ctrl+A or by clicking the top left corner of the worksheet and then press delete.
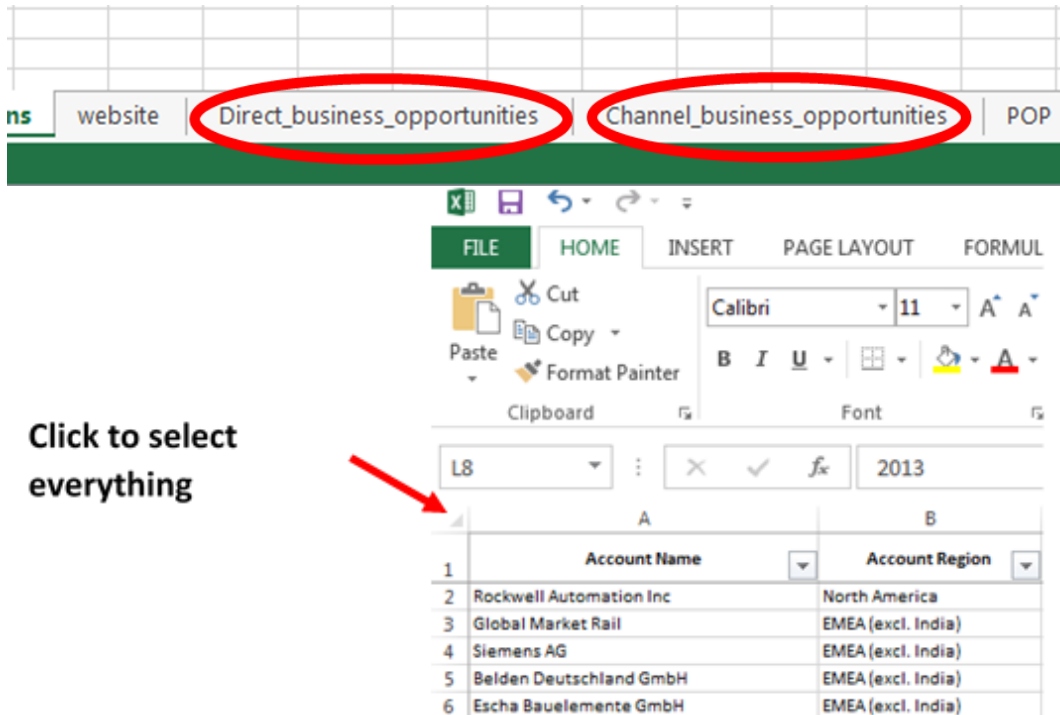
Now that the worksheet is empty go to the SALESFORCE tab in the excel navigation bar.
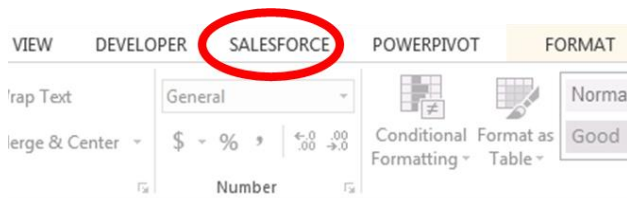
Then select the search bar. You can find both of the report by searching for "eps". When you press "Search", an import report window should pop up. The reports are called: **Direct_opportunities_eps**, for directs sales opportunities and, **Channel_opportunities_eps**, for channel opportunities. Make sure to select the correct report to import based on which worksheet you are on. Next select the report you want to import by clicking it and the n select the cell A1 to import tit to by either clicking the cell or by writing it to the "Cell" field on the import report window. Finally press "Import". Lastly SAVE THE DATABASE.
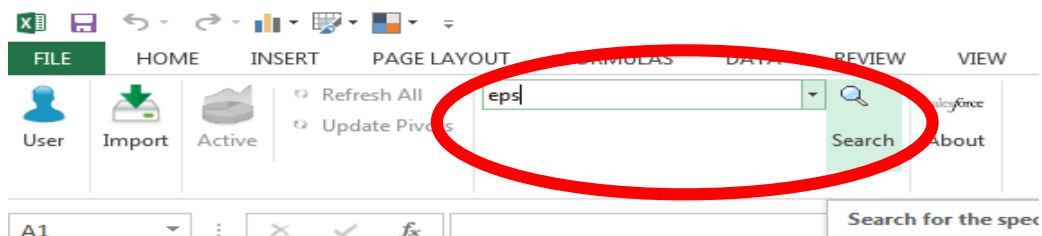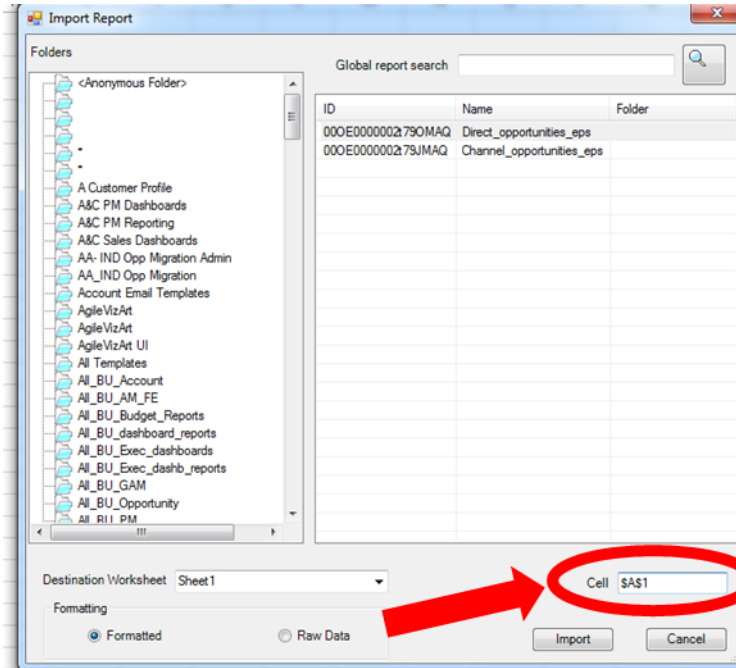
How to update the POP and POS data

When updating POP and POS data you need the report which is generated from Cognos and given to you by Nidasesi Santosh from Ba India. The POP and POS data come in separated excel files. The worksheets these files must be copied to are called "POP" and "POS". Make sure that the correct report goes to correct worksheet in the database. When updating the data first go to the sheet you want to update. Then select all the cell as described in the Direct and Channel opportunities instructions and delete all the old data. Next go to the new report and copy all the data and paste it to the cell A1 in the database in the correct worksheet.

How to update the Samples data

To get the sample data you have to run a Cognos report. This report is called Report View of Samples001V2 - Detailed Samples Report - ReducedepsColumns. To find it first go to "My home". Next select the search bar and search for samples001v2 and click the link.
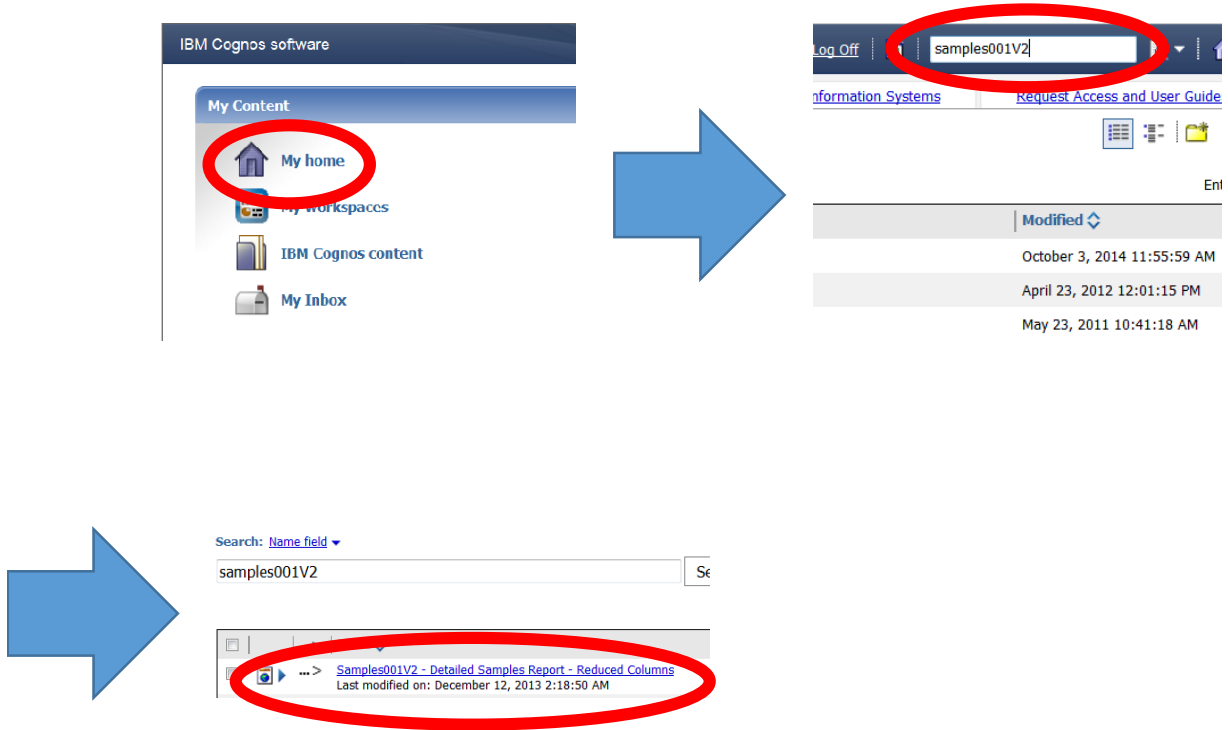
Now you have to insert the fiscal year and fiscal month you want and leave the rest of the data fields empty.

Next select ALL the GLP's (G79, G83 and J37) we track at the product line window. To select multiple product lines hold Ctrl and click ALL three product line codes one after another.
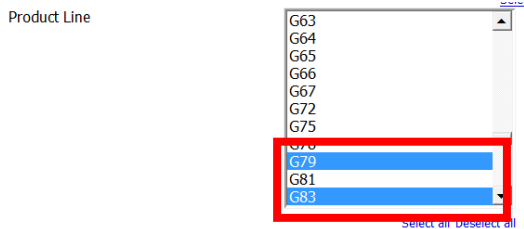
Next scroll to the bottom of the page and press "Finish".
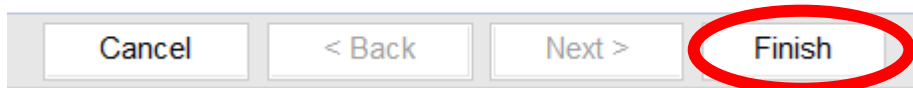
When the data is gathered open the dropdown menu with the picture of "View in HTLM Format" and hover over "View in Excel options" and click "View in Excel 2007 Data".

Next you open the excel file that Cognos has created and go to the database worksheet "Sample".
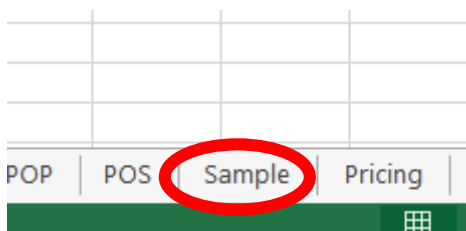
Now to get the new data in you have to scroll down to the first empty row. Next you simply copy all the data, without the headers of the data that the report generates (meaning the first row of the report with the text), you got from Cognos and paste it to the bottom of the "Samples" worksheet and you are done. **NOTE 1:** in order to be able to paste the data to the database worksheet you cannot copy the whole excel sheet from the Cognos report, instead you will have to drag to select all the rows you want to paste to the database. **NOTE 2:** At some point you will have gathered unnecessary amount of historical data and you should manually delete, for example, the first year that has been recorded to the tool. Lastly SAVE THE DATABASE.

Drag to select!

How to update the Customer complaints data

To update customer complaints you need to have access to TECHS database and Cognos. In order to do so, you first have to go to TECHS website:

http://techs.us.tycoelectronics.com//Default.aspx?goUrl=.

Next go to the Cognos reports. Now look for report called: TECHS_Measure_012 – 5D Responses by a GPL Code, and click it. Next you find yourself in the report building page. First you have to select all the GPL you need for the report, in this case G79, G83 and J37. NOTE: There are more than one G83 entries so make sure to select all of them. Now select all the GPL's by clicking them and holding Ctrl button at the same time so you can select multiple GPLs. When you have selected all you need make sure you have the customer complaints selected in the "Record types" field. After that select the date period to be last month and press "Finish".

TECHS_Measure_012 – Formal and Final 5D Responses by a GPL Code

Make sure to select ALL of the KPI at the same

Check that the selection is "Customer Complaint"

Select "Last Fiscal Month" as date period

Run the report

This will generate excel version of the report automatically. Also here you need to delete the header row of the generated report and drag to select all the desired rows so you can paste it to the database. Now open the database worksheet: "Customer_complaints". Go to the first empty row of the worksheet and copy the data of the last month there. Lastly SAVE THE DATABASE.
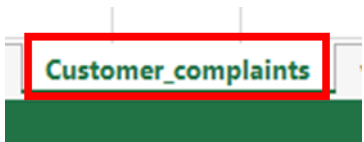
Update the database

First SAVE THE DATABASE. Now that you have pasted and updated all the new data you need to press the "Complete the updating process" button in any page of the database workbook. Running the macro behind this button might take a while so please be patient. Now you are done updating the database.
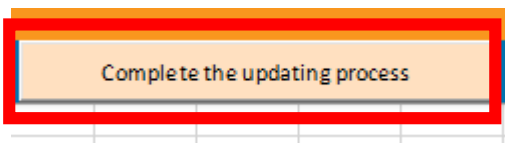
How to update the speedometer targets

Yearly it is necessary to update the speedometer targets. This update is done in the dashboard itself unlike all the other data updates. First you need to open the dashboard and go to the worksheet called: "Data_Speedometers".

Next you need to locate the table where you can see product family, expected growth and scale settings. In this table only change the expected growth to the one you wish it to be. Set the expected growth percentage as whole numbers to the dedicated cells. Finally press the "Press after updating the expected growth" button. This will make the possible changes to the scale settings. Remember to SAVE THE DASHBOARD.

Product family	Expected growth	scale settings
Ariso	500	800
M8/M12	200	400
Industrial Rj45	10	400
Industrial USB	5	400
Mini-IO	20	400
Others	10	400
All	15	400

Press after updating the expected growth

Uploading process and updating date

The updated database and dashboard should be done every month on the 8th day or the next weekday. After the updating is done both of the documents need to be uploaded to SharePoint so that it can be distributed to all the users.

- SharePoint: http://myteams.connect.te.com/sites/eps_dashboard

IV Explanation of the macros

The EPS KPI's Dashboard is set up by two different macro enabled excel books:

- The Database: The dashboard database contains the necessary information to create the different charts and speedometers that are shown in the EPS dashboard.

- The EPS KPI's Dashboard: The dashboard shows in a visual way the different leading indicators that can track the status of the Go-to-market strategy.

Macros of the dashboard database

Module: General

This module contains the macros that will be run during the workbook opening process

- Fiscal current date: The macro calculates TE's current fiscal date based on the calendar date.

- Date comparer: The macro checks when was last time that the workbook was opened and compare it with the current date. It shows a message box if it is necessary to actualize the data.

Module: Website

This module contains the macro that completes the website table after the actualization process

- Website table: After actualizing the information of the product family visits the macro add the information of the corresponding date. The website table macro also deletes, if necessary, the oldest information that the website table contains. **Necessary to be modified when a new product family is added.**

Module: Product family

This module contains the macros that create the product family column for the different sheets.

- POP product family

- POS product family

- Sample product family

- Customer complaints product family: In this case the conditions are slightly different because of the format of the product code information. This macro finds out if the specific product code is contained in the text of the respective cell.

These macros check the product code in the different worksheets and creates a new column which groups them in their respective product families. **If a new product code or a new product family is added these macros need to be modified.**

Module: Direct Opportunities

This module contains the macros that complete the information about the opportunities with big customers

- Fiscal date Direct: Using the created date this macro creates two new columns which contain the information of the created fiscal month in the first one and the created fiscal year in the second one.

- Pipeline phase Direct: This macro creates a new column which groups all the phases in fewer groups. Reducing the number of phases.

- Simple phase Direct: Following the same procedure as the previous macro this one groups the opportunities in three phases (won, lost, open).

- Direct table pipeline: This macro adds to the pipeline a table with the information about the current status of the open opportunities in the pipeline. The macro also counts the number of open opportunities as well as their expected revenue per phase as well as per region. It also deletes the oldest data when it is necessary.

- Direct new won lost: This macro adds the information to the direct new won and lost table. It counts and calculates the expected revenue of the opportunities created, won or lost during the previous month. As it is done in the previous macro it also saves the opportunities by region and deletes the oldest data when necessary.

Module: Channel Opportunities

This module contains all the macros that refer to the Channel sales opportunities pipeline. This module contains the same macros as the previous one but in this case they refer to the Channel opportunities.

- Fiscal date Channel
- Pipeline phase Channel
- Simple phase Channel
- Channel table pipeline
- Channel new won lost

Module: Customer complaints

This module contains the macro for the customer complaints table fiscal date.

- Customer complaint fiscal date: Reading the information from the complaint fiscal date of the report it modifies the format and creates two new columns which show the date in a way that it is useful for the charts of the visual dashboard

Module: Speedometer website

This module contains the macros that are needed for the website speedometer.

- Ariso visits
- M8/M12 visits
- Industrial Rj45 visits
- Industrial USB visits
- Mini-IO visits

These macros count the visits to the specific product page during the previous month. Each macro also calculates the monthly average visits of the previous fiscal year. Finally the macro copies that information in the speedometer information sheet. **If a new product family needs to be added to the dashboard it is necessary to create a new macro for that product family. (The code has an empty example that you can fill in order to do that)**

Module: speedometers POP & POS

Following the idea of the previous module this one contains the macros needed for the POP and POS speedometers.

- Ariso POP
- M8/M12 POP
- Industrial Rj45 POP
- Industrial USB POP
- Mini-IO POP

These macros calculate the incomes from the billings of a specific product family during the previous month. Each macro also calculates the monthly average revenue of the previous fiscal year. Finally they copy that information in the speedometer information sheet. **If a new product family needs to be added to the dashboard it is necessary to create a new macro for that product family. (The code has an empty example that you can fill in order to do that)**

- Ariso POS
- M8/M12 POS
- Industrial Rj45 POS
- Industrial USB POS
- Mini-IO POS

These macros calculate the income from the re-sales of a specific product family during the previous month. Each macro also calculates the monthly average revenue of the previous fiscal year. Finally the macros copy that information in the speedometer information sheet. **If a new product family needs to be added to the dashboard it is necessary to create a new macro for it. (The code has an empty example that you can fill in order to do that)**

Macros in the dashboard

Module: General

- <u>Username</u>: This macro searches for the user name and copies it into a cell in order to show it in the Dashboard's navigation bar.
- <u>Target date</u>: This macro checks if the speedometers target have been updated and if not shows a message box giving notice of this situation during the beginning of every fiscal year.

Module: Main master button

In this module the macros needed for the master button of the main page are contained:

- <u>Main master button change:</u> By selecting an option in the master button this macro is run and it selects the correct case in order to filter the charts and speedometers. This macro is connected to the master button. Therefore it is run every time the user changes the selection in the master button

- <u>All master button</u>
- <u>Ariso master button</u>
- <u>M8/M12 master button</u>
- <u>Ind Rj45 master button</u>
- <u>Ind USB master button</u>
- <u>Mini-IO master button</u>

These macros select the correct filters in the slicers and the correct buttons for the speedometers. Making the necessary changes in order to show the information that the user is looking for in the charts and speedometers.

Modules: Direct master button & Channel master button

In this case both modules contain macros which functionality is the same as in the previous case. But these master buttons are not filtered by product family, instead they are filtered by region.

⬧ Direct master button:
- <u>Direct master button change</u>
- <u>All direct master button</u>
- <u>Asia direct master button</u>
- <u>EMEA direct master button</u>
- <u>North America direct master button</u>
- <u>Japan direct master button</u>
- <u>China direct master button</u>

Channel master button:
- Channel master button change
- All channel master button
- Asia channel master button
- EMEA channel master button
- North America channel master button
- Japan channel master button
- China channel master button

Module: Speedometer scale

This module contains a macro that configures the scale for the speedometers based on the expected growth.

- Scale settings

Main page code

The main page has code in it in order to control the buttons that modify the value of the speedometers.

The master buttons are directly connected to the master button change macros.

V   How to add a product code to the tool

In order to modify the code user should have basic understanding of programing preferably visual basic. Please before starting the process a security copy of the database workbook should be created

To add a new product code it is necessary to modify some of the macros that are explained before.

First of all open the Dashboard database and go to the developer add on in the excel navigation bar. Once in the developer add on press the visual basic button and search in the project browser for the specific needed modules (Module 3 product family).
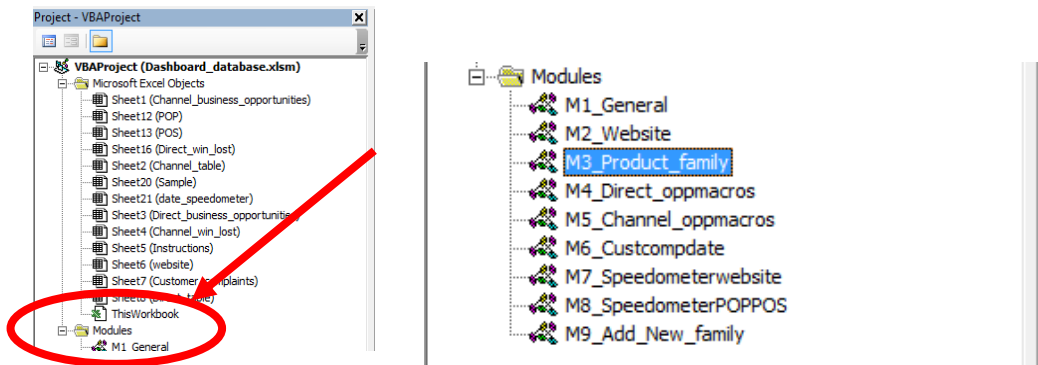
The macros that need to be modified are located in the product family module and are named:

- POP product family
- POS product family
- Sample product family
- Customer complaints product family

Find the first macro and search for the condition where the product codes are added to the product families.

As an example next we will shoe how to add a new product core to Ariso product family. This is the code you need to find in each macro:

```
If (Worksheets("POP").Cells(i, 15).Value = "J525") Then
    Worksheets("POP").Cells(i, 18).Value = "Ariso"
  End If
```

After finding the If statement correspondent of the product family which needs to be modified we are going to add the necessary product code in the conditions line. Supposing that the name for the example product code is "A123" the final if statement should look like this:

```
If (Worksheets("POP").Cells(i, 15).Value = "A123" Or Worksheets("POP").Cells(i, 15).Value = "J525") Then
    Worksheets("POP").Cells(i, 18).Value = "Ariso"
  End If
```

Find the rest of macros and repeat this operation in the rest of the mentioned macros. Now the process of adding a new product code is done.

In the case for the customer complaints product family the macro is slightly different as it is mentioned before. In spite of that fact the process to add a new product code for that information is exactly the same. It is only necessary to take in account that we are using the instruction InStr to evaluate if the product code is contained in the cell text.

```
If (InStr(1, Worksheets("Customer_complaints").Cells(i, 46).Text, "J525")) Then
    Worksheets("Customer_complaints").Cells(i, 65).Value = "Ariso"
  End If
```

```
If (InStr(1, Worksheets("Customer_complaints").Cells(i, 46).Text, "A123") Or InStr(1, Worksheets("Customer_complaints").Cells(i, 46).Text, "J525")) Then
    Worksheets("Customer_complaints").Cells(i, 65).Value = "Ariso"
  End If
```

F   Appendix: The EPS KPI's Dashboard charts

The data for the Industrial Rj45 are only available since the fiscal year 2015

All
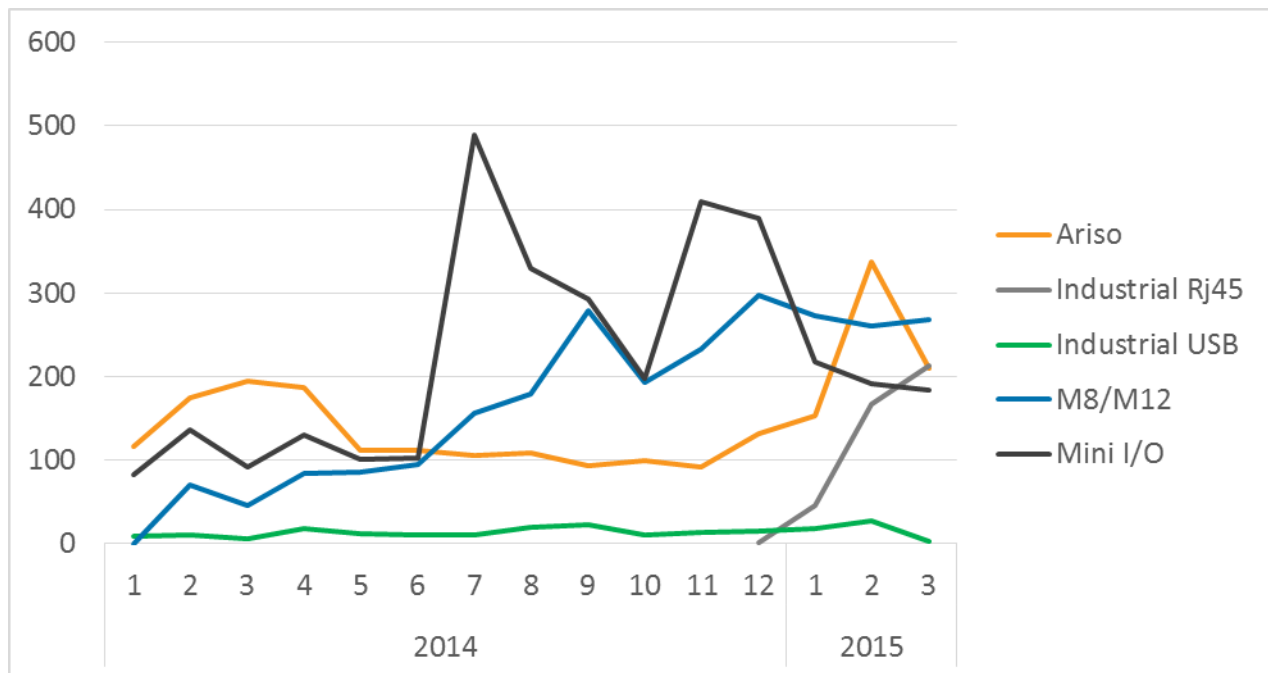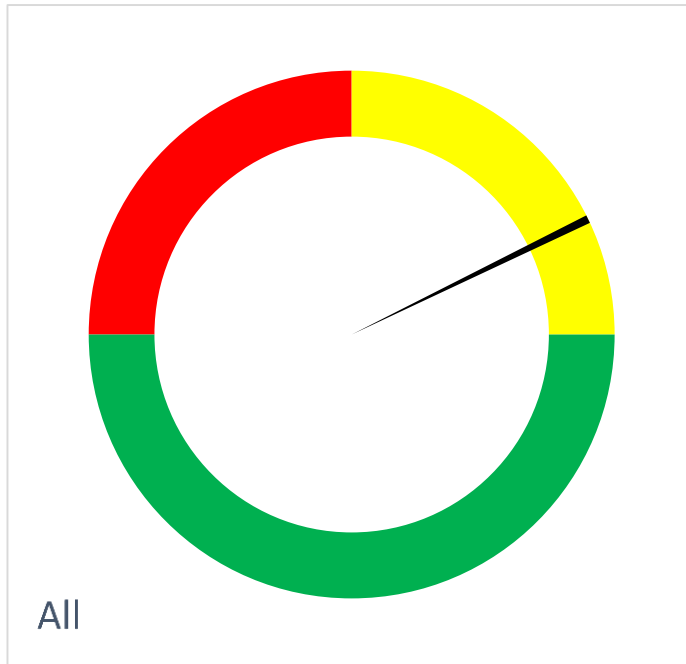
II Point of purchase and Point of sales

Mini IO

Point of purchase
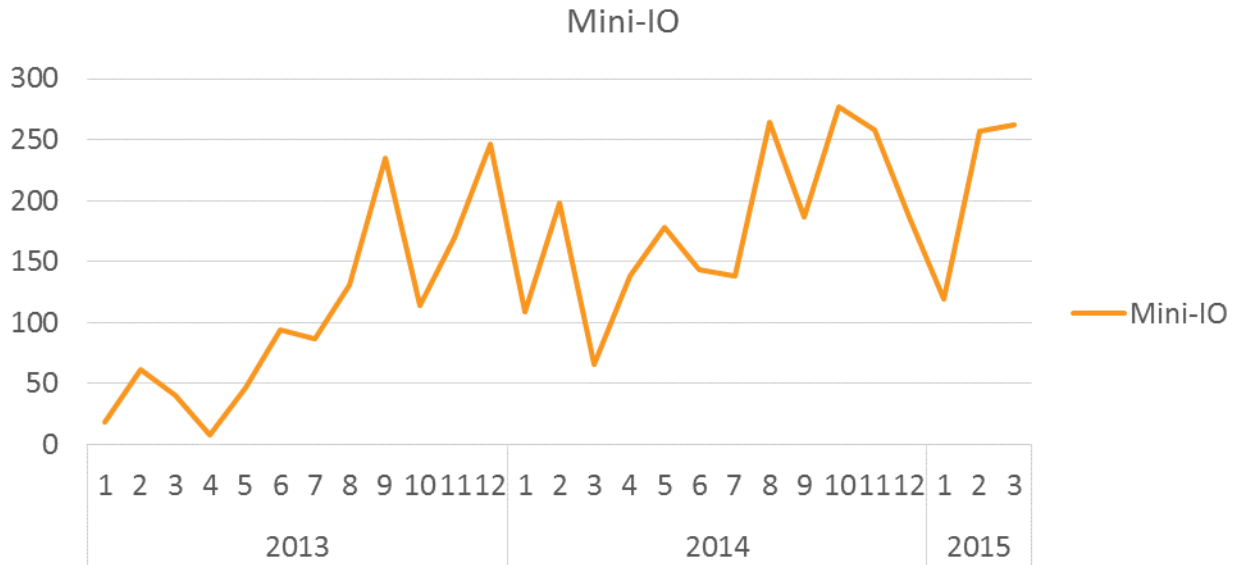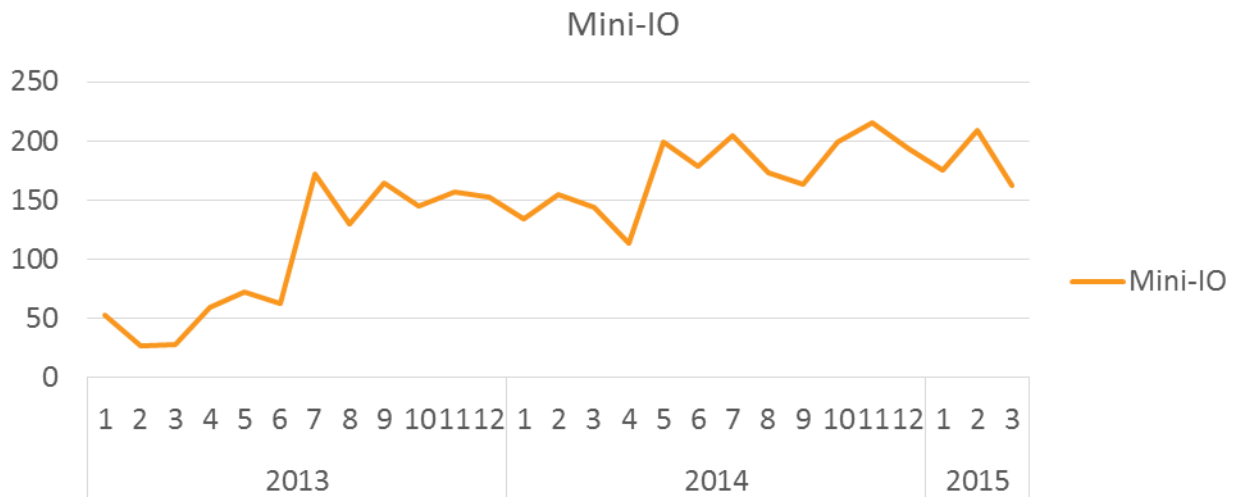
Point of sales

Industrial Rj45 and M8/M12

Point of purchase

Point of sales

Point of purchase
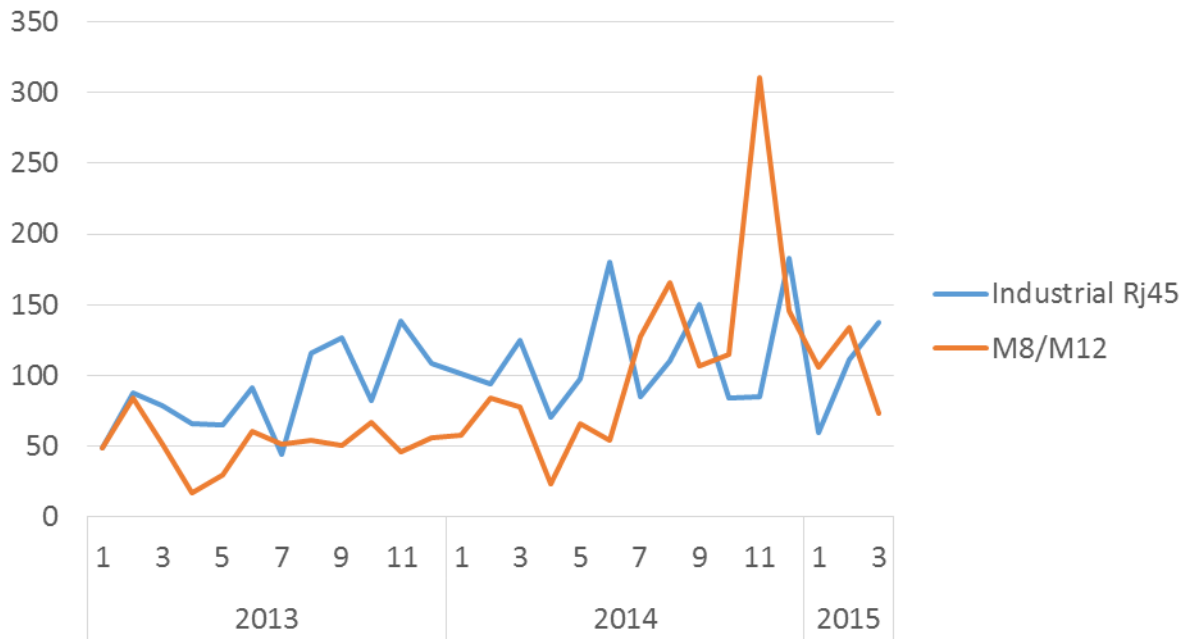
Industrial USB
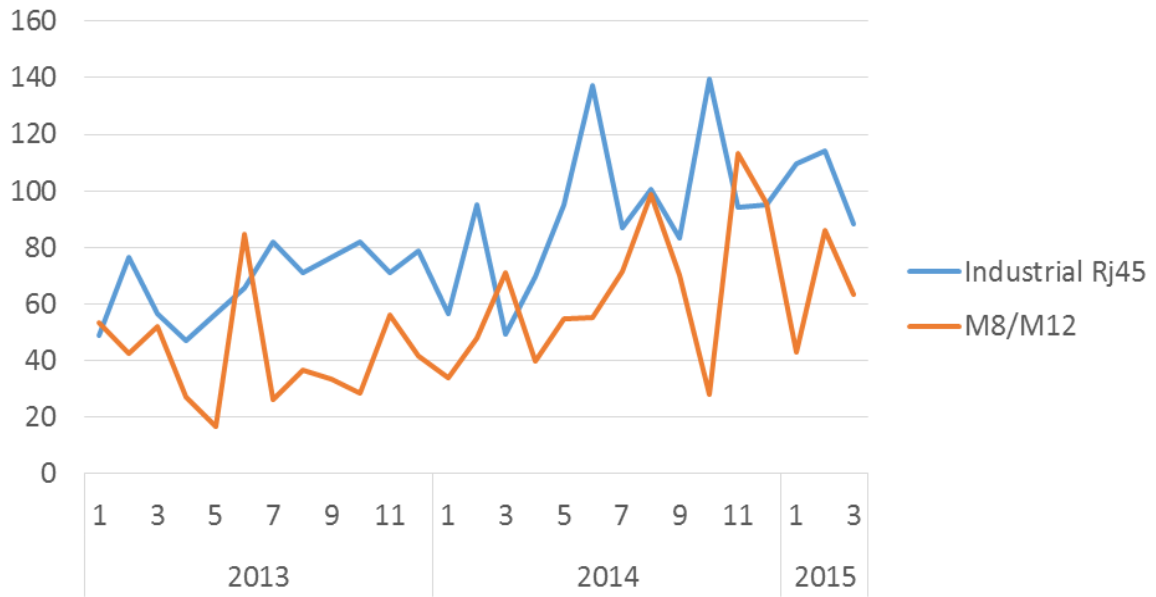
Point of sales

Industrial USB

Point of purchase

All

Point of sales

All
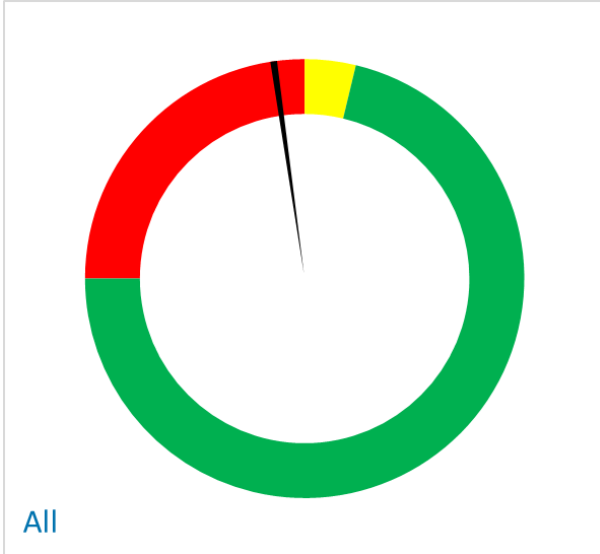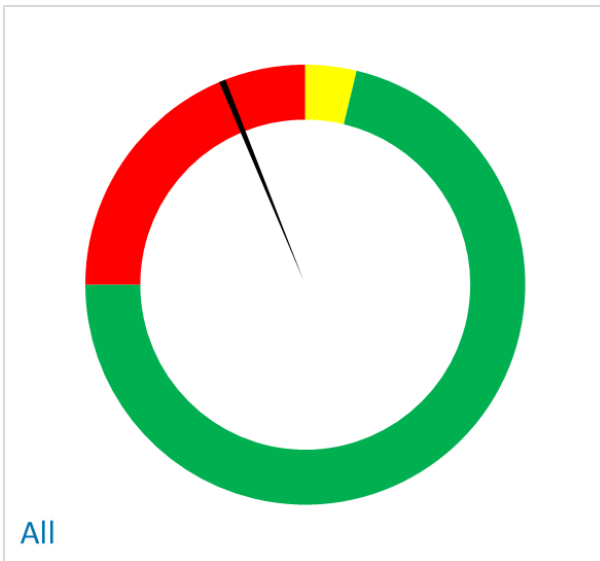
M8/M12 and Mini I/O
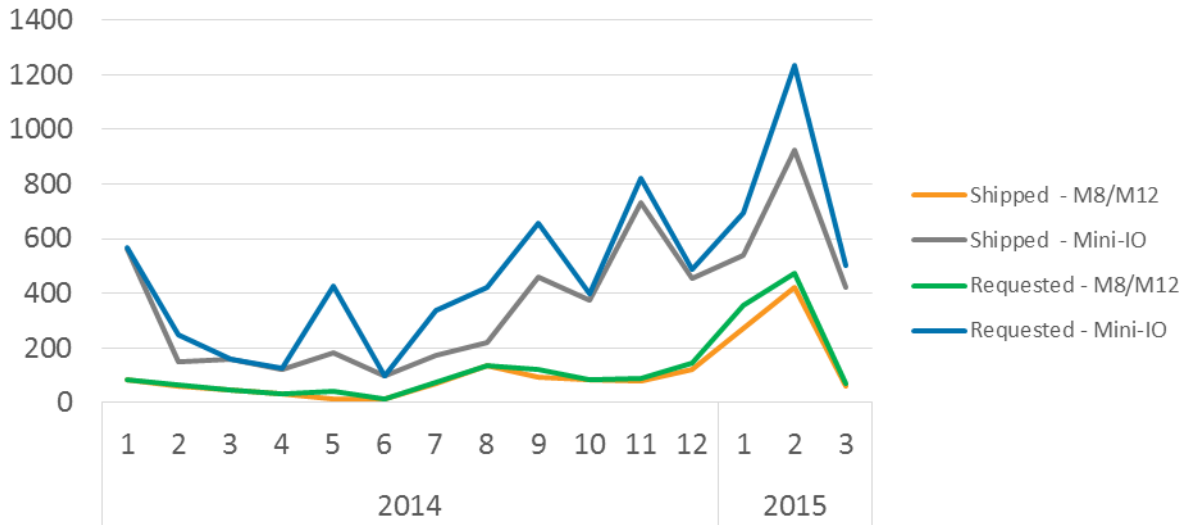
Industrial USB and industrial RJ45
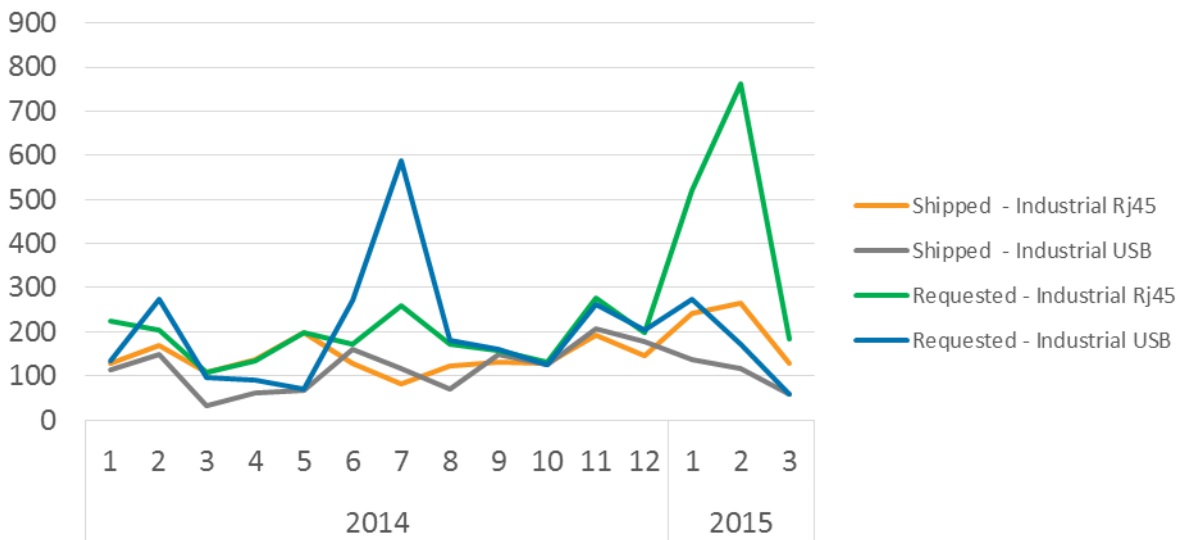
IV Customer complaints
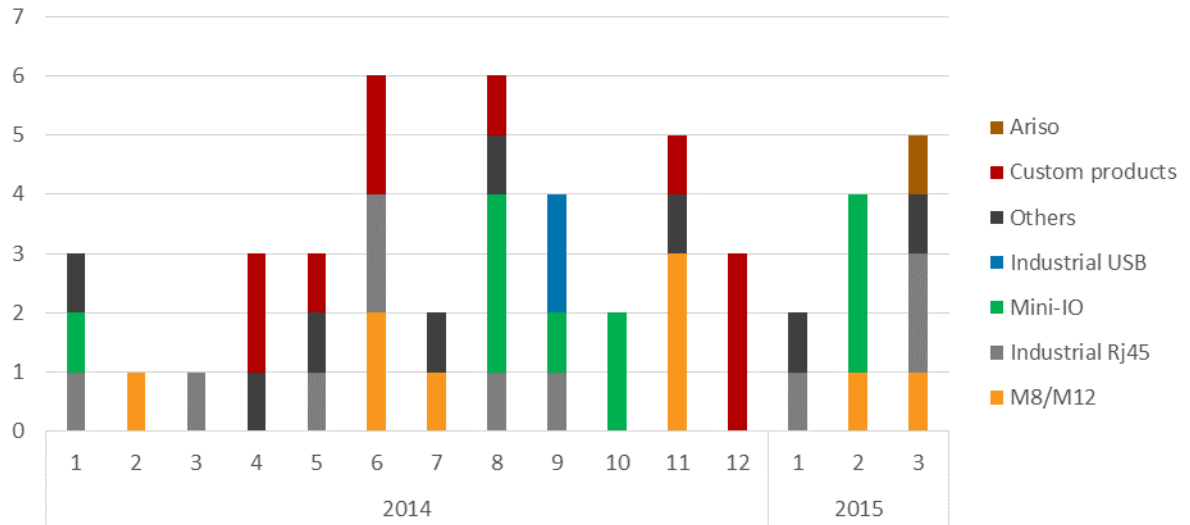
V Direct opportunities expected revenue per phase
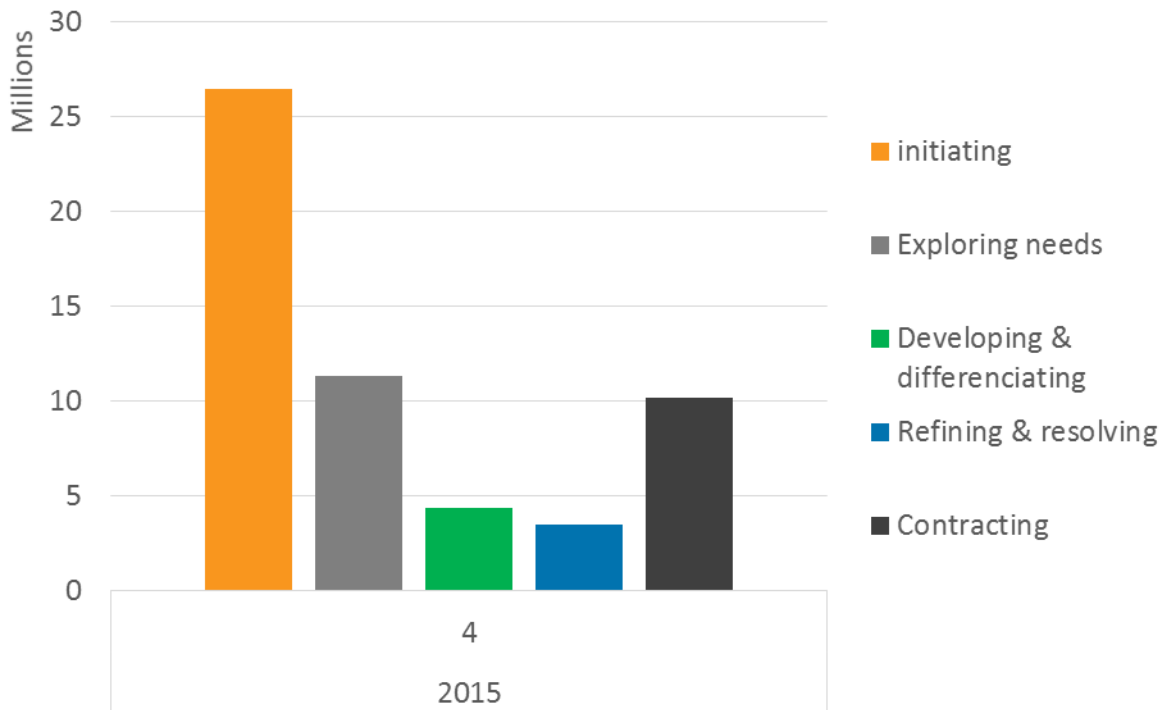
Direct sales pipeline

Number of opportunities per phase
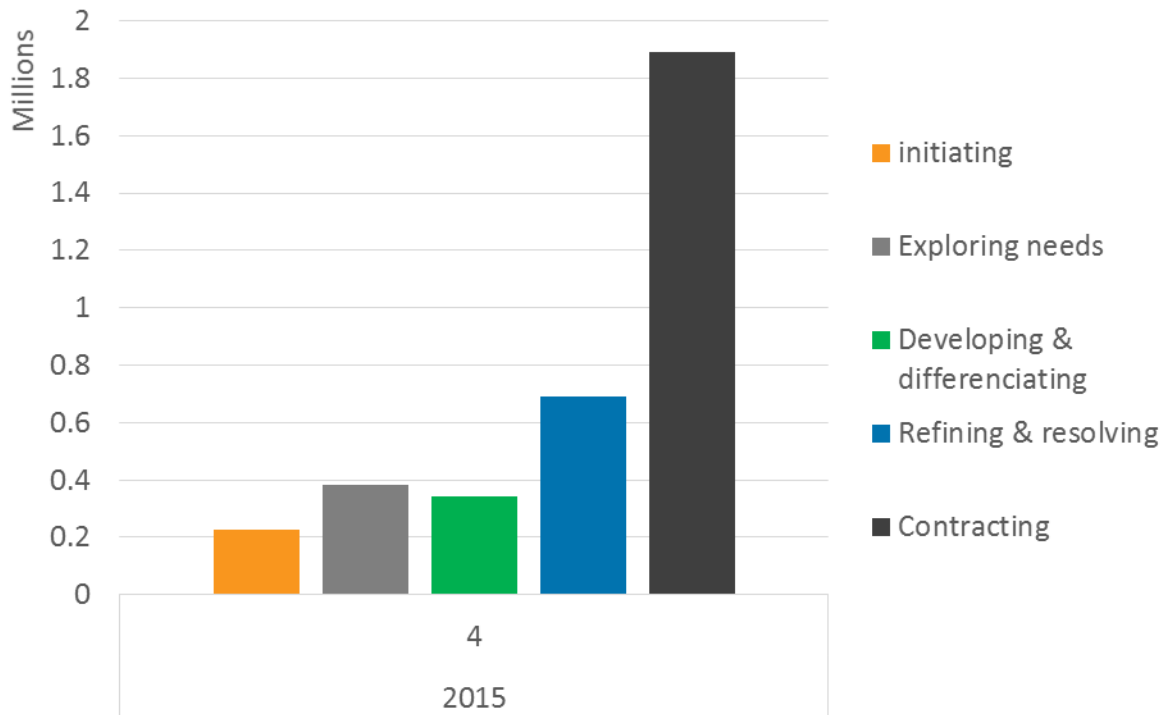
Number of won opportunities

Number of Won opportunities

Expected revenue of won opportunities

Exp revenue of the Won opportunities

Number of Lost opportunities

Number of New opportunities

Exp rev for the New opportunities

Number of Won opportunities

Exp rev of the Won opportunities
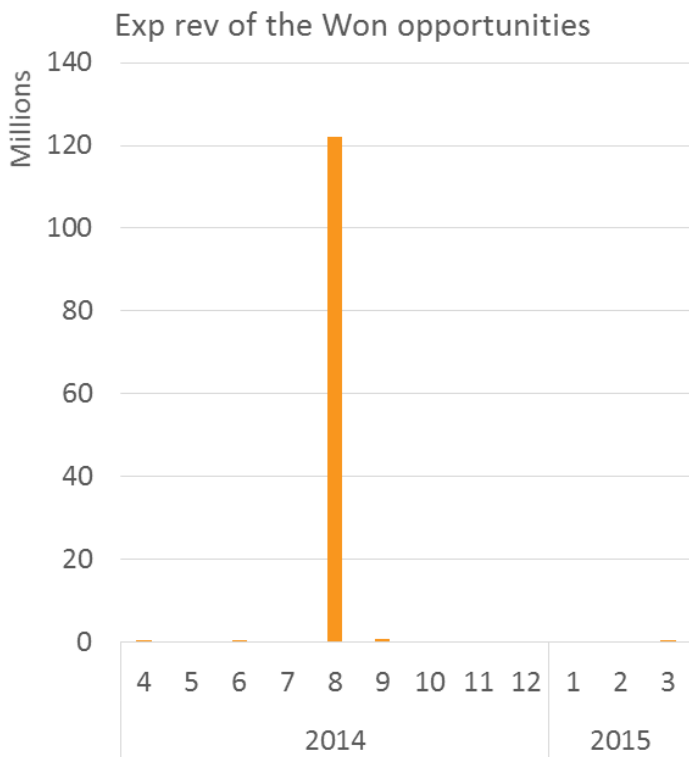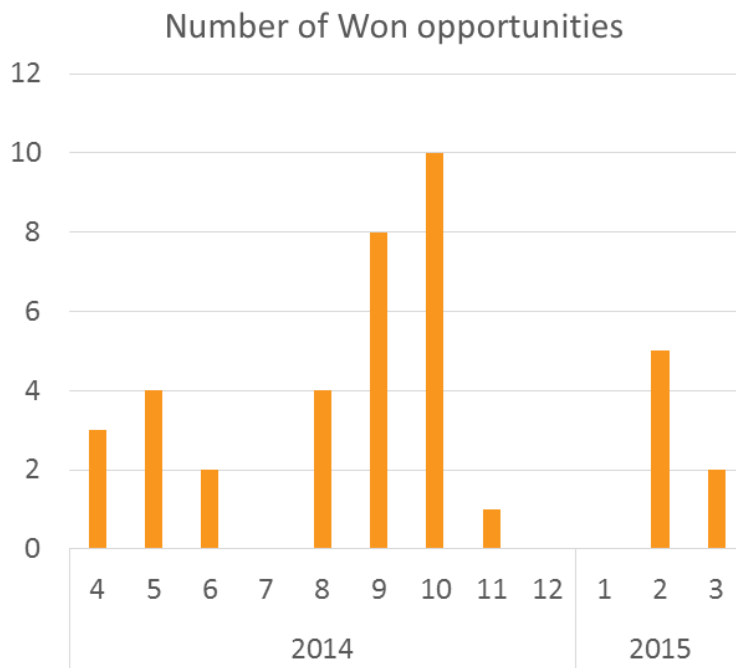
Number of Lost opportunities

Number of new opportunities

Expected revenue of new opportunities
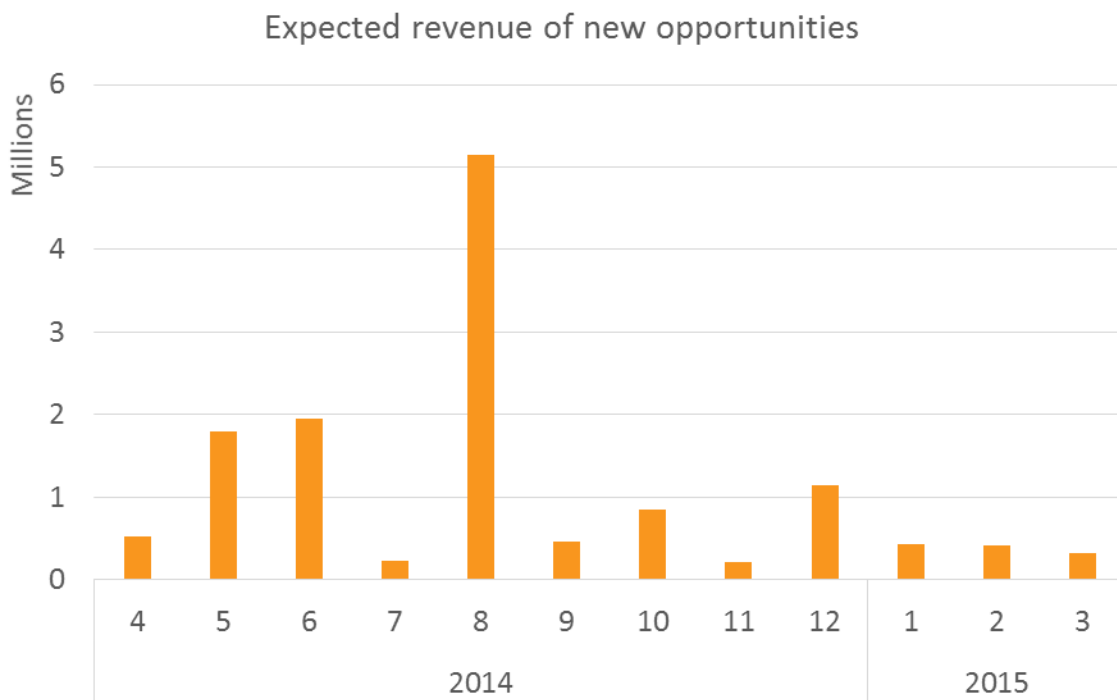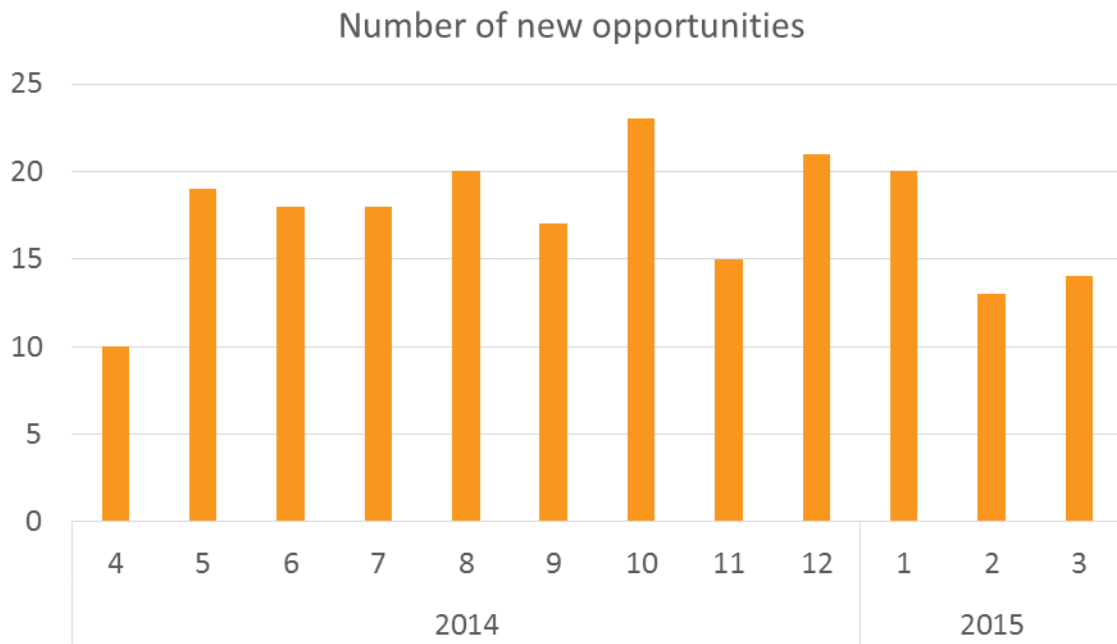
G Appendix: References and sources

I   Bibliography

+ **Reference[1]:** TE Connectivity Brand Guidelines
  Source:
  http://imageserver.tycoelectronics.com/imageserver/Tyco/myTE/CommunicationsContent/GeneralContent/files02/TE_Connectivity_Brand_Guidelines.pdf

+ **Reference[2]:** TE connectivity business plan EPS 2013

+ **Reference[3]**: 2014 US Customer survey of the electronic connector market
  Source:
  http://us194wb06.us.tycoelectronics.com/inforesources/bishopreports/bishopresearchreports/S-301-14.pdf

+ **Reference[4]**: Product information center voice of customer report
  Source: Bart Broeren.

+ **Reference[5]**: Industrial Rj45 description
  Source: http://www.te.com/en/product-launch/industrial-rj45.html

+ **Reference[6]**: M8/M12 description
  Source: http://www.te.com/en/product-launch/m8-m12.html

+ **Reference[7]**: Mini IO description
  Source: http://www.te.com/en/about-te/news/new-products/2014/mini-io-field-installable.html

+ **Reference[8]**: Industrial Usb description
  Source: http://www.te.com/catalog/minf/en/779

+ **Reference[9]**: Ariso Contactless connectivity description
  Source: file:///D:/Downloads/ENG_DS_1-1773720-3_ARISO-CCP_DATASHEET_1113_1-1773720-3_ARISO-CCP_DATASHEET.pdf

+ **Reference[10]**: Bishop & associated Report M-700-14 (March); World connector market handbook
  Source:
  http://us194wb06.us.tycoelectronics.com/inforesources/bishopreports/bishopresearchreports/M-700-14.pdf

+ **Reference[11]**: Training opportunity management April 2014

II   List of tables

III   List of figures

Figure 28: Opportunities pipeline
Source: The EPS KPI's Dashboard

Figure 29: New, won and lost opportunities charts
Source: The EPS KPI's Dashboard

IV   Other sources

- Tutorial on how to create a speedometer in excel
- *Source:* https://www.youtube.com/watch?v=BYFqVNKtzy8

- Tutorial on how to create a menu in excel
- *Source:* https://www.youtube.com/watch?feature=player_detailpage&v=gVhdFjtf6LM

- Visual basic help and tips

  Source: *http://msdn.microsoft.com/en-us/library/office/ff521867(v=office.14).aspx*
  https://social.msdn.microsoft.com/Forums/en-US/
  http://exceltotal.com/
  Date: 08/01/2015