

# cubist

*Your Business Intelligence*

## Mockup

CUBIST Deliverable D9.1.2

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Innovantage

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## Mockup

Abstract: This document is the initial mockup for Innovantage for the FP7 CUBIST project.

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# Versioning and contribution history

## Reviewers

### Versioning and contribution history

Version	1. Description	Contributors
1.0	First draft with mockup slides	Chris Rafferty (Innovantage)
1.1	Extended draft with descriptions	Chris Rafferty (Innovantage)
1.2	Updated address comments from reviewers	Chris Rafferty (Innovantage)

### Reviewers

Name	Affiliation
Constantinos Orphanides	Sheffield Hallam University
Frithjof Dau	SAP

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# Introduction

This is the Innovantage use-case-dependent mockup for FP7 CUBIST. Delivered to satisfy requirement D9.1.2 part of Work Package 9:

D 9.1.2	In close collaboration with the creation of the overall CUBIST mockup in D1.1.3, this report contains a set of initial mockup screens for the expected user interfaces and a description of their functionalities
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Innovantage collects vacancy data from internet based sources to empower recruitment consultancies, job board, media owners and employers find and better understand the online recruitment activity of UK companies.

# Mockup Example Setting

Every day Innovantage gathers all the new jobs posted on 84 UK job boards as well as over half million corporate sites, this data is then used to generate reports detailing:

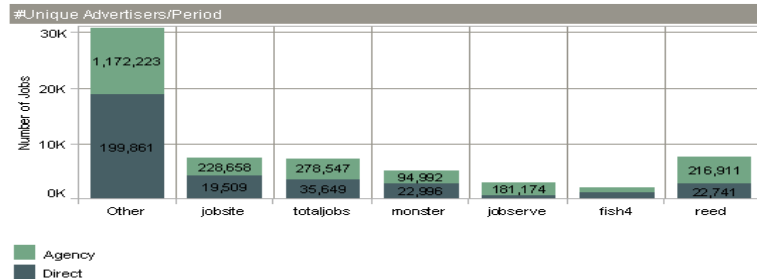
- Market penetration. The monthly accumulated total of new vacancies advertised on individual Job Boards.
- Gap Analysis. Comparison of advertiser postings per Job board used to distinguish which job board advertisers are initially choosing to post their new advertisement. This information can be used by the Job Boards to target new advertisers using competitors.

These reports are used by Recruitment agencies to improve their performance in placing job applicants and therefore to increase their revenue.



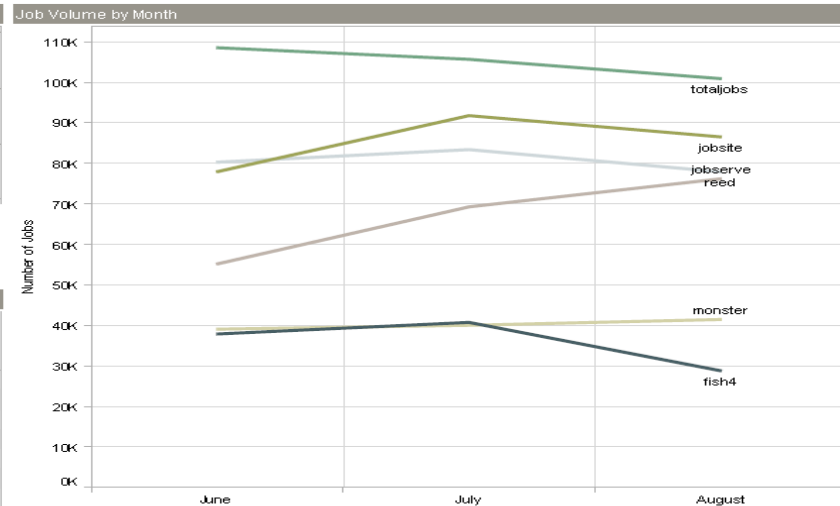
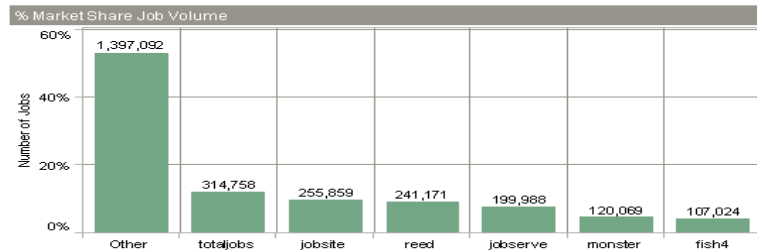
# Mockup Example Setting

## Example screenshot of the existing Market Penetration report



#Unique Advertisers/Period

	June		July		August	
	Unique Advertisers	% Share Unique Advertisers	Unique Advertisers	% Share Unique Advertisers	Unique Advertisers	% Share Unique Advertisers
fish4	1,561	4.91%	1,268	3.80%	967	2.95%
jobserve	1,919	6.71%	2,154	7.31%	2,250	7.75%
jobsite	4,307	14.61%	4,805	16.09%	4,082	14.28%
monster	3,045	11.02%	3,105	10.86%	2,927	10.43%
reed	4,969	17.83%	4,953	17.21%	4,667	16.56%
totaljobs	4,573	15.80%	4,534	15.12%	4,460	15.13%
Other	17,550	62.83%	18,192	62.85%	18,219	64.76%



Job Volume by Month

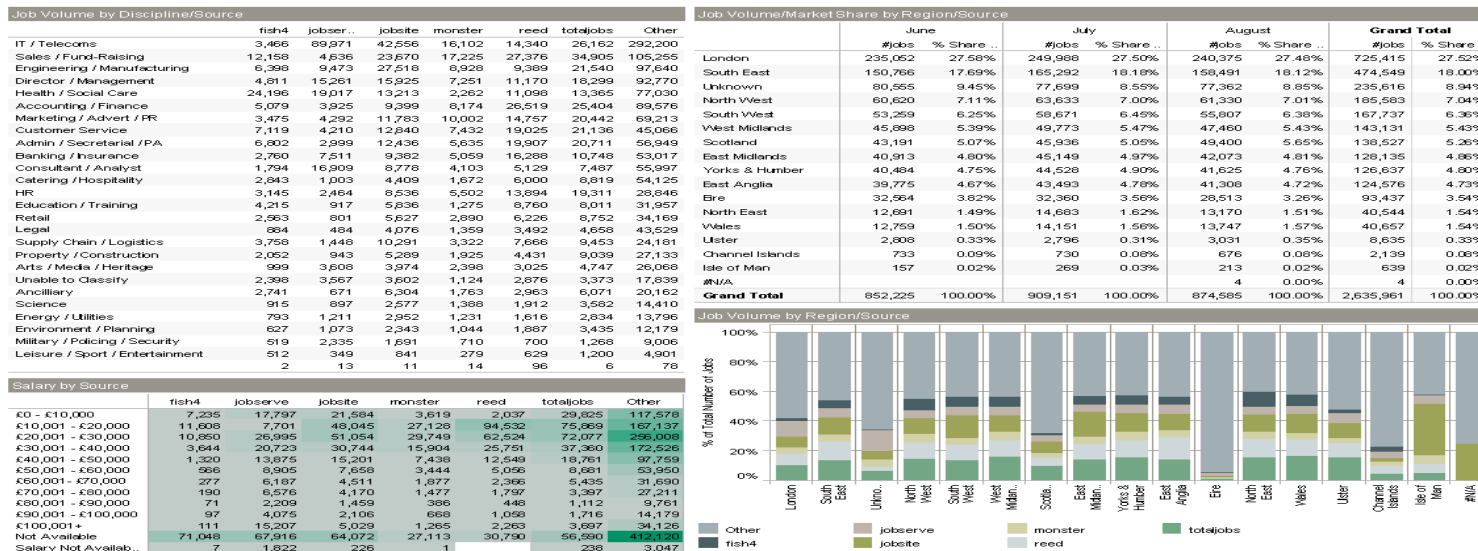
	June		July		August		Grand Total	
	#jobs	% Share Jobs	#jobs	% Share Jobs	#jobs	% Share Jobs	#jobs	% Share Jobs
Other	454,265	53%	479,297	53%	463,530	53%	1,397,092	53%
totaljobs	108,425	13%	105,473	12%	100,860	12%	314,758	12%
fish4	37,755	4%	40,591	4%	28,678	3%	107,024	4%
jobserve	54,906	6%	69,080	8%	76,002	9%	199,988	8%
jobsite	77,738	9%	91,615	10%	86,506	10%	255,859	10%
monster	38,925	5%	39,801	4%	41,343	5%	120,069	5%
reed	80,211	9%	83,294	9%	77,666	9%	241,171	9%
<b>Grand Total</b>	<b>852,225</b>	<b>100%</b>	<b>909,151</b>	<b>100%</b>	<b>874,585</b>	<b>100%</b>	<b>2,635,961</b>	<b>100%</b>

# Mockup Example Setting

The Market penetration analysis breaks down further of the performance of individual job boards using the following categories:

- **Discipline.** Job advertisements are grouped into various categories or disciplines, e.g. IT/Telecomms, Legal, Energy/Utilities
- **Geographic area.** Job advertisements are grouped by geographic location, e.g. South east, North West, etc...
- **Salary.** Job advertisements by salary range for individual job boards

Example screenshot of existing detailed Market Penetration analysis:



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# Market share analytics mock-up

Formal concept analysis (FCA) applied to Market Share data.

Goals:

- Provide alternative view point of the data
- Expose hidden relationships and facts in the data that may not obvious in the conventional chart based report. Aiding recruitment agencies in identifying market changes that potentially could lead to a competitive advantage.

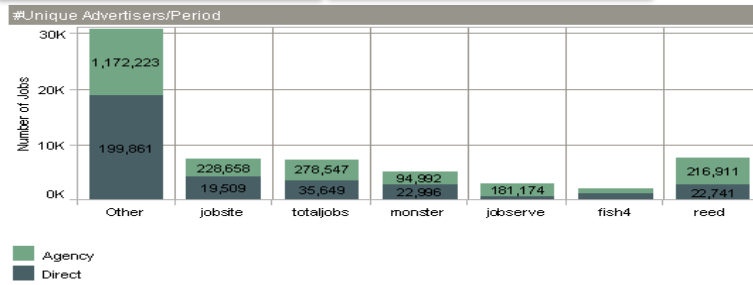
# Starting the analysis: Visualisations

Shown on the next slides:

- On mockup slide 1, shows how a tabbed framework is incorporated to allowed access to a new perspective: FCA
- On mockup slide 2, shows initial user work space containing the Hasse diagram. This perspective will allow recruitment agencies to explore.

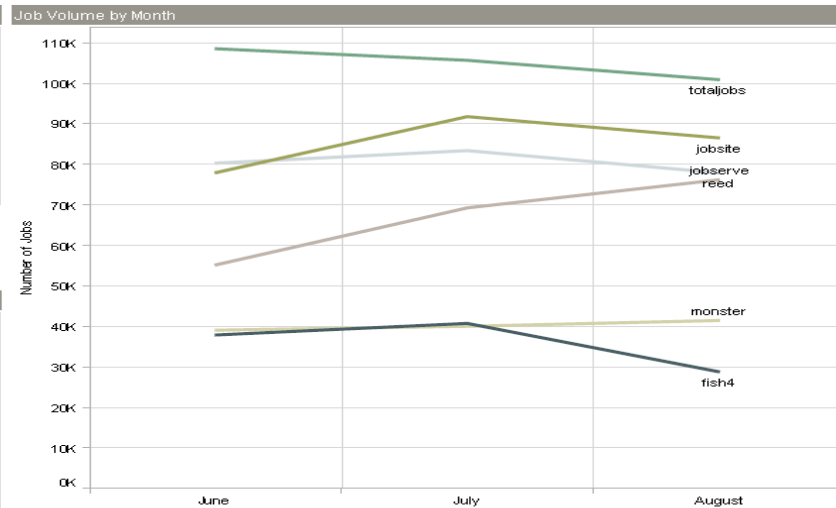
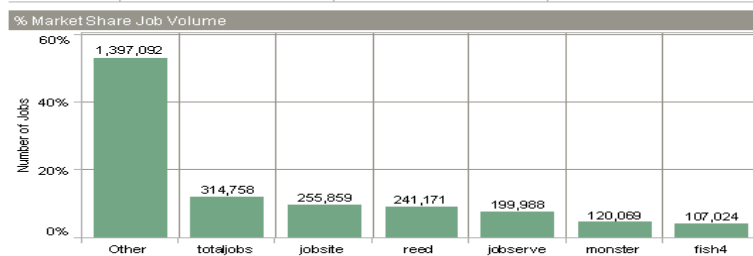
# Starting the analysis: Visualisations

## Charts FCA



#Unique Advertisers/Period

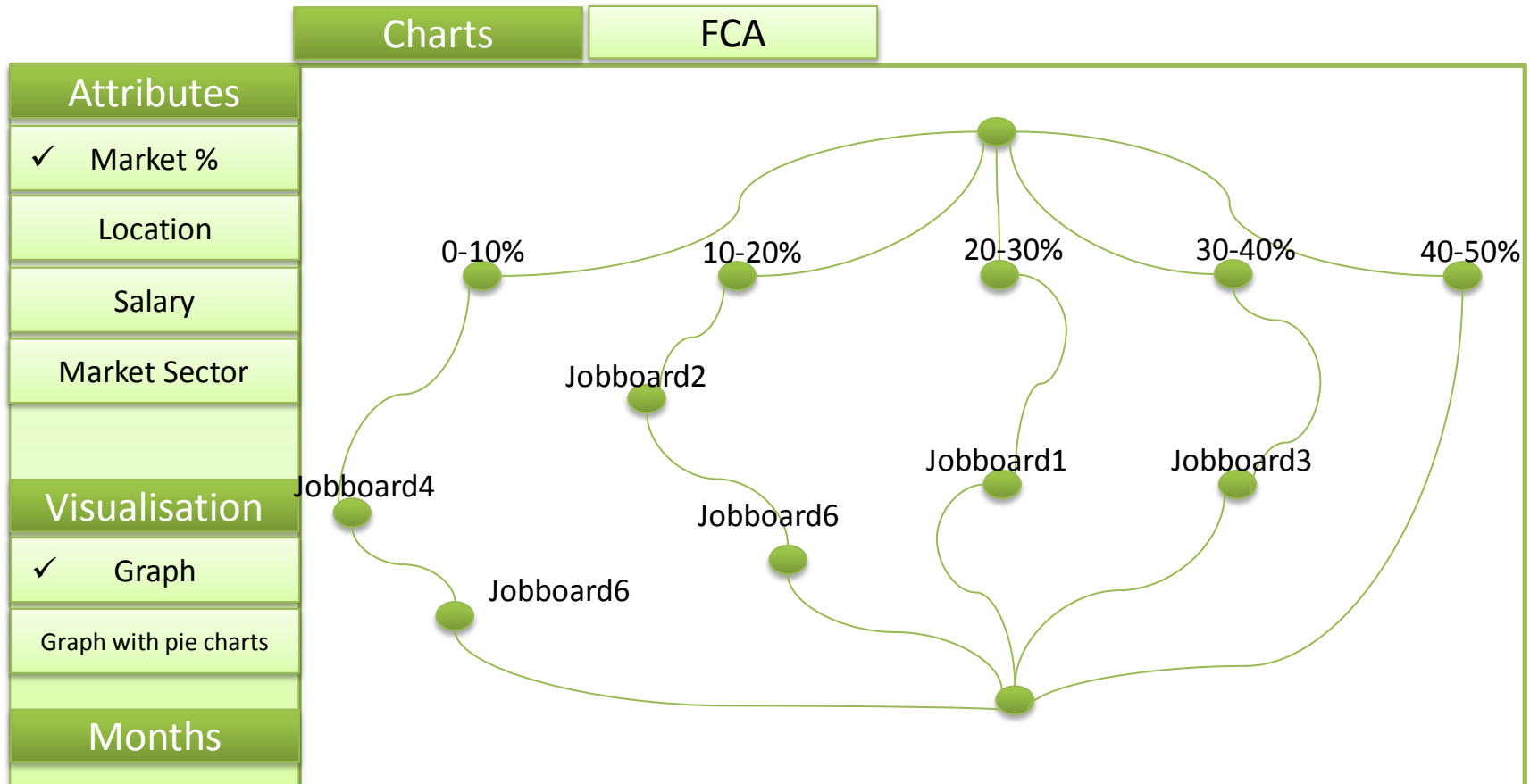
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# Starting the analysis: Visualisations



# Starting the analysis: Navigation

A series of buttons are displayed down the left hand side of the perspective shown on the previous slide Mock up 2. These will permit the user to:

- Select the attributes that is displayed in the Hasse diagram, such as:
  - Market %
  - Location
  - Salary
  - Market Sector (Discipline)
- Select alternative view styles or features
- Show a Hasse diagram per month's data, allowing trend comparisons to be performed.

Selecting or deselecting an attribute will dynamically cause the Hasse diagram to update to either add or remove node respectively.



# Node information

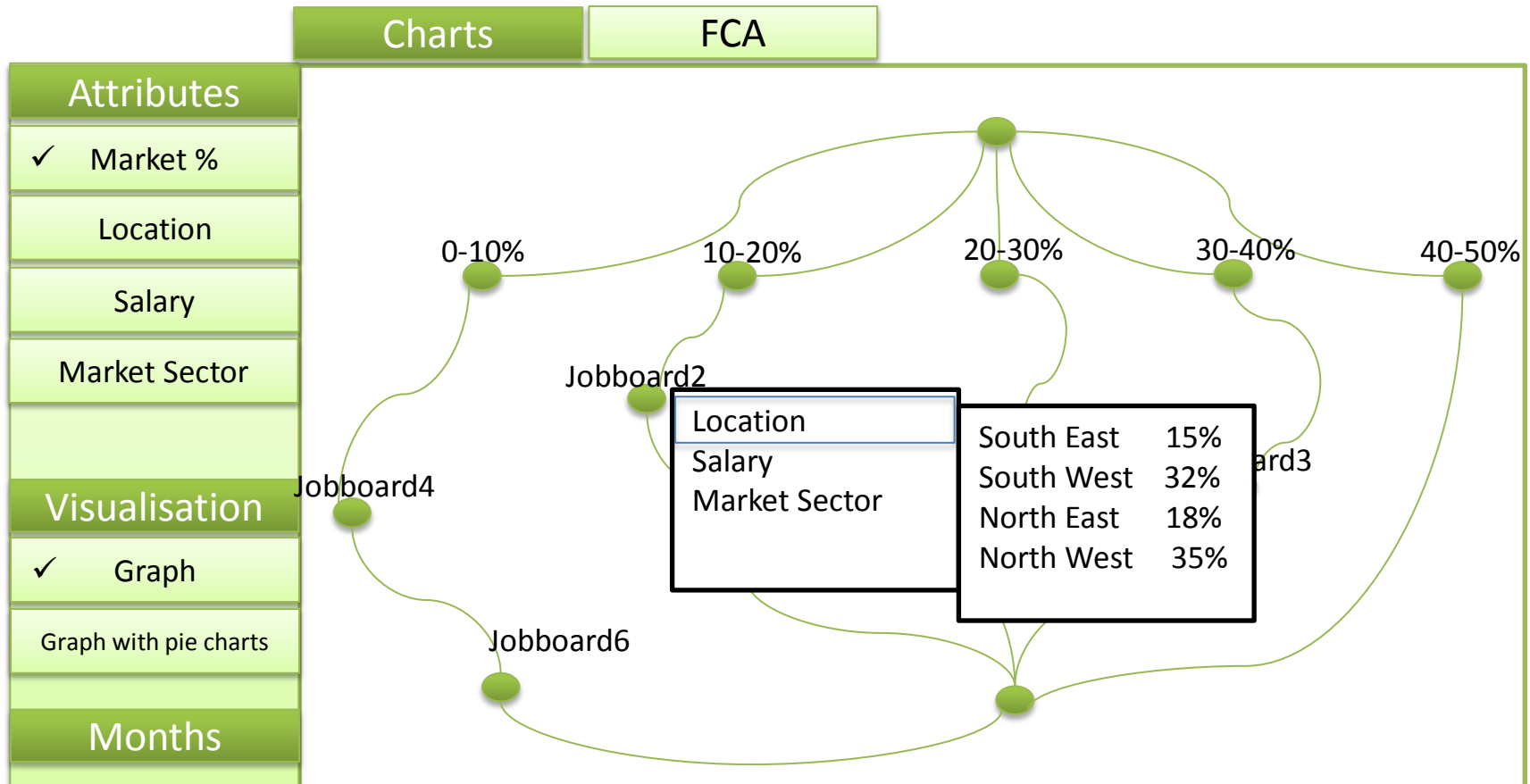
Shown on the next slide:

- The user exploring, by selecting, individual nodes within the Hasse Diagram.
- Values of other attributes, currently not incorporated Hasse diagram, are display in a series of pop-up menu items when a Node is selected.

Access to the attribute details, via this process, aids the users insight, determining what other attributes to incorporate.

As the Hasse diagram rapidly increasing in size and complexity as additional attributes are shown it would desirable to have zoom and pan features to navigate the graph.

# Visualisations: Exploring nodes



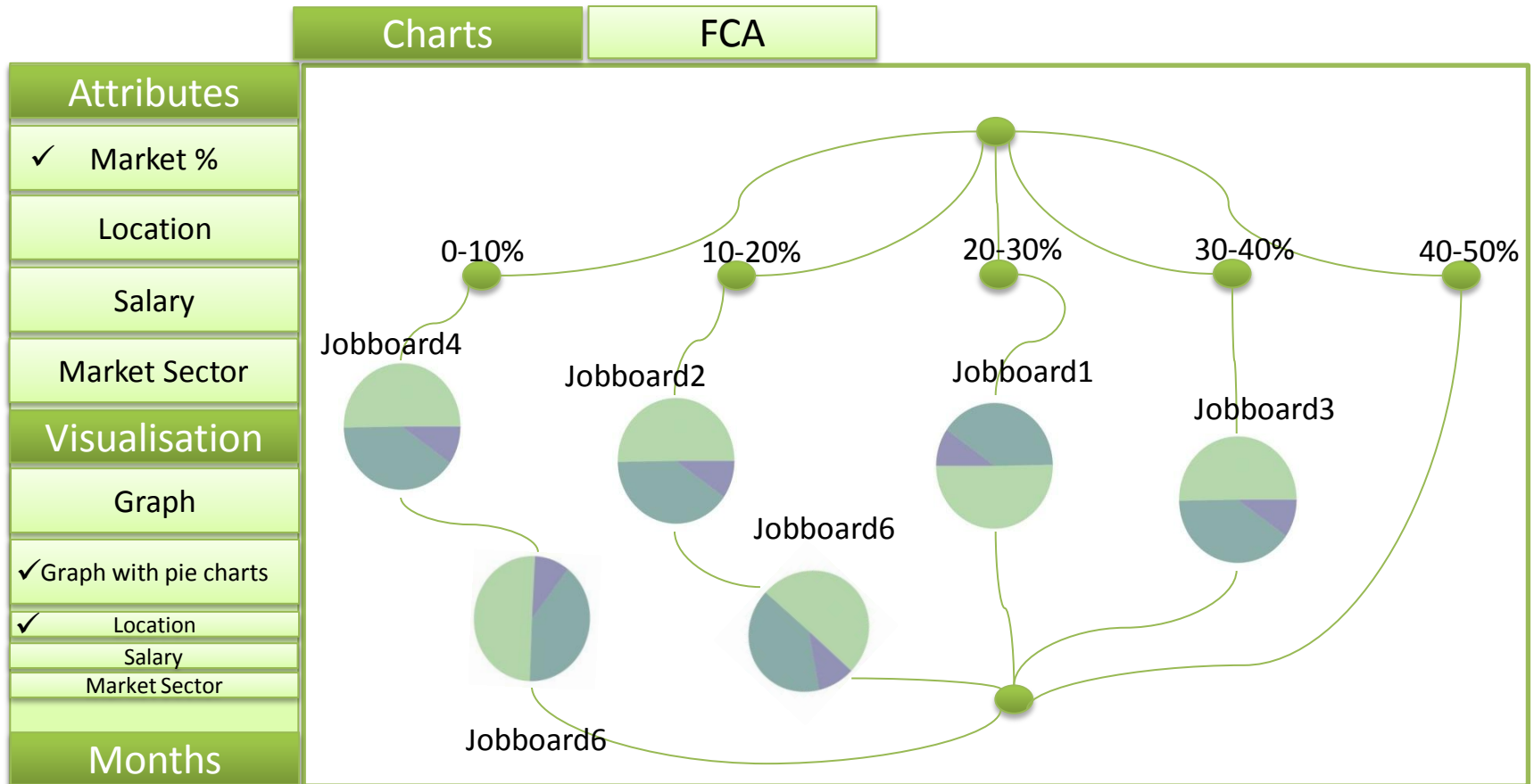
# Node information

Shown on the next slide:

- In addition to selecting node to see the values of other attributes the user can also select to modify the style of the displayed nodes to display a pie chart representing another attribute.

The particular attribute selected is display on all nodes of the graph. Comparison can then be made against this attributed across all nodes.

# Visualisations: Pie charts



# Timeline comparsion

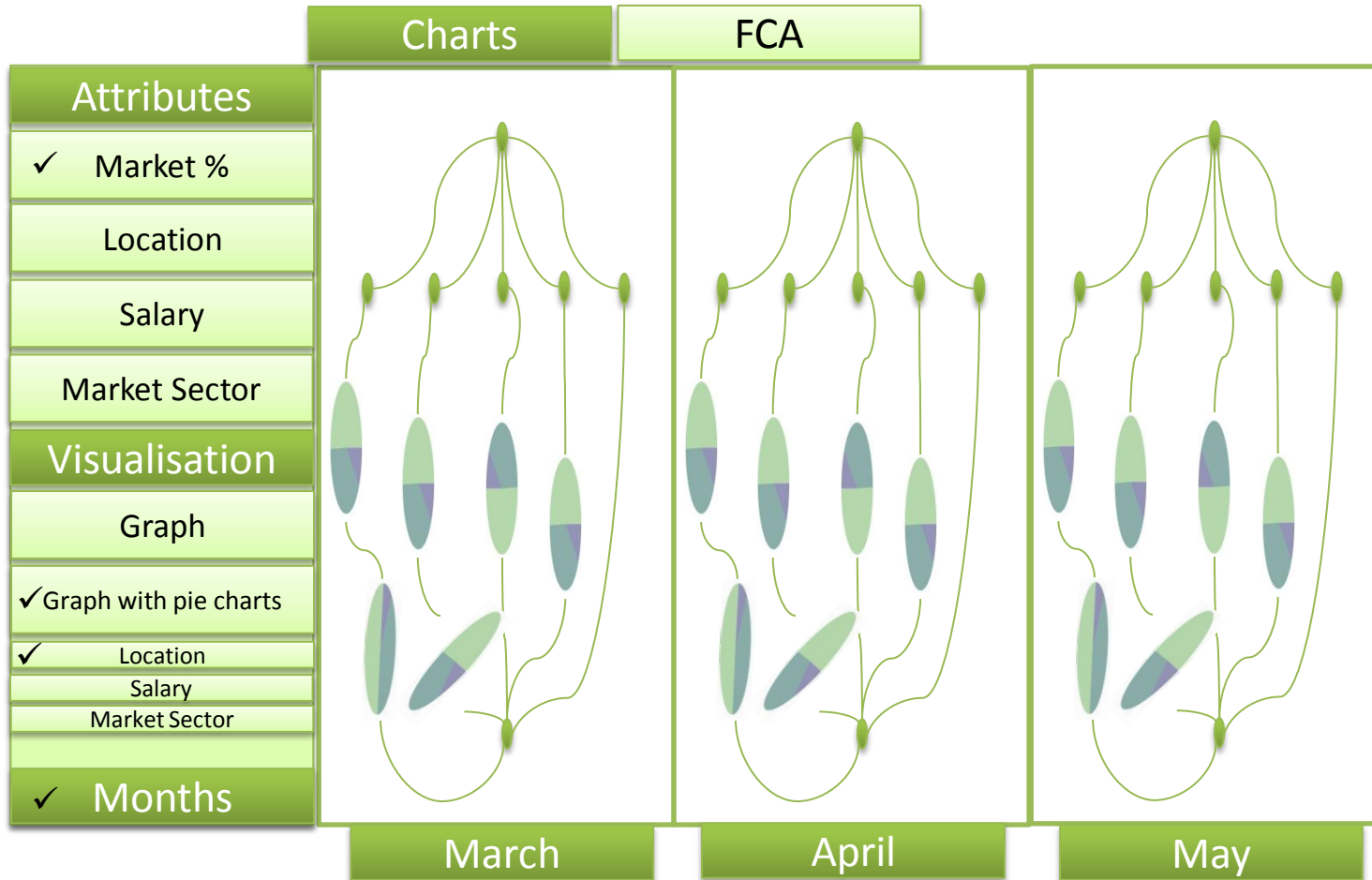
Shown on the next slide:

- Users are allow to add a timeline to display to show multiple Hasse-diagrams.

This allows the user to view changes on the relationships over time. This feature is extremely powerful for trend identification. Recruitment agencies can significant improve performance by:

- Targeting Applicants with skills sets that are increasingly in demand while reducing efforts for skills in decline.
- Finding location hotspots where particular skills are in high demand.

# Starting the analysis: Visualisations



# Summary

- The Mock-up has shown how data from the recruitment domain may be presented to users interested in analysing performance of the recruitment market. Business intelligence tools based on the capabilities presented offer recruitment agencies significant competitive advantage.
- Mock-up only explores one particular report type it could equally be applied to the other report types generated by Innovantage.