

State of the Union

***“What does the future hold for
statistical computing in Europe”***

October 2012

Agenda

- Overview
- Survey Results
- My view

Overview

- Survey sent out to managers representing the European Pharma Programming Industry
- Views on what the future holds
- Need your input & thoughts

Survey

SEITE: PHUSE STATE OF THE UNION QUESTIONNAIRE

1. How would you classify your company:			 Tabelle erstellen	 Herunterladen
		Beantwortung in Prozent	Anzahl Beantwortungen	
Pharma		40,0%	8	
Biotech		5,0%	1	
CRO		55,0%	11	
Other (please specify)			0	
		beantwortete Frage	20	
		übersprungene Frage	0	

Comment

- Can we sustain the growth in CROs ?
 - Is there the work ?
 - Do CROs grow the talent pipeline ?
 - Is there too much dependence on Offshore ?

2. Over the last three years, has your company increased staff

 Tabelle erstellen Herunterladen

↓ Herunterladen

	No – reduced	No - same	Yes - <10%	Yes - 10- 30%	Yes - 31- 50%	Yes - >50%	Anzahl Beantwortungen
Global – Statistical Programmers	5,9% (1)	29,4% (5)	5,9% (1)	41,2% (7)	17,6% (3)	0,0% (0)	17
Global – Statisticians	17,6% (3)	17,6% (3)	23,5% (4)	35,3% (6)	5,9% (1)	0,0% (0)	17
Europe – Statistical Programmers	26,3% (5)	26,3% (5)	5,3% (1)	31,6% (6)	5,3% (1)	5,3% (1)	19
Europe – Statisticians	26,3% (5)	21,1% (4)	15,8% (3)	26,3% (5)	10,5% (2)	0,0% (0)	19
					beantwortete Frage		19
					übersprungene Frage		1

4. Do you employ placement students/under-graduates in either Biostatistics and/or Programming?



Tabelle erstellen



Herunterladen

		Beantwortung in Prozent	Anzahl Beantwortungen
No		57,9%	11
Yes - Biostatistics		0,0%	0
Yes - Statistical Programming		15,8%	3
Yes - Both		26,3%	5
		beantwortete Frage	19
		übersprungene Frage	1

5. Do you expect to be still employing placement students/under-graduates in three years time?



Tabelle erstellen



Herunterladen

		Beantwortung in Prozent	Anzahl Beantwortungen
No		61,1%	11
Yes - Biostatistics		0,0%	0
Yes - Statistical Programming		16,7%	3
Yes - Both		22,2%	4
		beantwortete Frage	18
		übersprungene Frage	2

Comment

- Outlook not promising for Europe !

6. If you work for a pharmaceutical or biotech company, do you expect to increase the amount of work you outsource?



Tabelle erstellen



Herunterladen

		Beantwortung in Prozent	Anzahl Beantwortungen
No (we don't outsource and don't intend to start)		5,6%	1
No (I anticipate maintaining our level of outsourcing)		11,1%	2
No (I anticipate reducing the amount of outsourcing)		5,6%	1
Yes (I anticipate increasing our outsourcing by <10%)		11,1%	2
Yes (I anticipate increasing our outsourcing by 10-30%)		11,1%	2
Yes (I anticipate increasing our outsourcing by 30-50%)		0,0%	0
Yes (I anticipate increasing our outsourcing by >50%)		0,0%	0
No - I do not work for either a pharmaceutical or biotech company		55,6%	10
beantwortete Frage			18
übersprungene Frage			2

Comment

- Why outsource more , what is the driver ?
 - Cost
 - Talent
 - Expertise
 - Other ?

7. Do you have Biostatistics and/or Statistical Programming in the following Regions:



[Tabelle erstellen](#)



[Herunterladen](#)

	No	Yes - Biostatistics	Yes - Statistical Programming	Yes - Both	Anzahl Beantwortungen
India	44,4% (8)	0,0% (0)	22,2% (4)	33,3% (6)	18
South Africa	82,4% (14)	0,0% (0)	5,9% (1)	11,8% (2)	17
Africa (excl. South Africa)	100,0% (17)	0,0% (0)	0,0% (0)	0,0% (0)	17
China	50,0% (9)	5,6% (1)	5,6% (1)	38,9% (7)	18
Asia (excl. India and China)	77,8% (14)	5,6% (1)	0,0% (0)	16,7% (3)	18
South America	100,0% (16)	0,0% (0)	0,0% (0)	0,0% (0)	16
Eastern Europe (incl. Russia)	77,8% (14)	0,0% (0)	5,6% (1)	16,7% (3)	18
beantwortetete Frage					19
übersprungene Frage					1

8. Do you expect to have Biostatistics and/or Statistical Programming in the following Regions in the next three years:

 [Tabelle erstellen](#)  [Herunterladen](#)

	No	Yes - Biostatistics	Yes - Statistical Programming	Yes - Both	Anzahl Beantwortungen
India	42,1% (8)	0,0% (0)	10,5% (2)	47,4% (9)	19
South Africa	82,4% (14)	0,0% (0)	5,9% (1)	11,8% (2)	17
Africa (excl. South Africa)	94,1% (16)	0,0% (0)	0,0% (0)	5,9% (1)	17
China	38,9% (7)	5,6% (1)	0,0% (0)	55,6% (10)	18
Asia (excl. India and China)	64,7% (11)	0,0% (0)	0,0% (0)	35,3% (6)	17
South America	82,4% (14)	0,0% (0)	5,9% (1)	11,8% (2)	17
Eastern Europe (incl. Russia)	72,2% (13)	0,0% (0)	5,6% (1)	22,2% (4)	18
beantwortete Frage					19
übersprungene Frage					1

Comment

- Offshore locations
 - India strong and growing
 - Are all services offshored ?
 - China growing
 - The Tiger is truly awake !

Statistician Skills – 5 Years Ago

Statistician 1)	Statistician 2)	Statistician 3)
Maths and statistics	Submission experience	Expertise in clinical trials
SAS programming	Logical thinking	Communication
Good Related Qualification	Good knowledge of SAS STAT	Good Organisation
Technical Expertise	Communication	Project Management
Knowledge of stats methods	Drug development knowledge	Communication skills
Statistical Analysis	Industry knowledge	SAS Coding
Stats knowledge	some basic SAS expertise	
communication	project management	global working
Overview of TA	Classical Statistics	Completer
Technical skills	Communication	Experience

Statistician Skills – Now

Statistician 1)	Statistician 2)	Statistician 3)
Maths and statistics	Communication and intercultural understanding	Project management
SAS programming	Logical thinking	Communication
Good leadership skills	Good communication and time management skills	Good Stats knowledge
Project Management	Technical Expertise	Communication
Knowledge of stats methods	Drug development knowledge	Negotiation and influencing skills
Bayesian Modelling	Industry Knowledge	Customer Interaction
Stats knowledge	communication	project management
communication	project management	global working
Communication	All Stats methods	Analyst
Technical skills	Communication	Experience

Statistician Skills – Future

Statistician 1)	Statistician 2)	Statistician 3)	
SAS programming	Logical thinking	Communication	
Leadership	Communication	Stats knowledge	
Project Management	Technical Expertise	Communication	
Knowledge of stats methods	Drug development knowledge	Negotiation and influencing skills	
Adaptive Design Modelling	Industry Standards	Customer Interaction	
Stats knowledge	Communication	Project management	
communication	project management	global working	
Communications	Consultancy	Analyst	
Communication	Financial understanding	Technical skills	

Programmer Skills – 5 Years Ago

Programmer 1)	Programmer 2)	Programmer 3)
Technical skills	Programming skills	Medical understanding
Sound SAS Programming	Communication	Clinical data experience
Team work		
Good SAS knowledge	Good clinical trial knowledge	
Technical Expertise	Flexibility / Organisational skills	Communication
Technical programming skills	Project management skills	Communication skills
SAS Coding	Analytical Thinking	Planning
Technical (programming) skills	Communication / teamwork	Knowledge of clinical trials process
technical skills	team work	project leadership skills
good SAS understanding	good understanding of Pharmaceutical stats	
communication	technical ability	project management
SAS	Data Standards	Efficiency
Multi discipline exposure i.e. DM, CDMS, CRF builds, data transformations, statistical analysis - master of all trades	Analytical thinking	Team player
Technical skills	Eye for detail	Team work

Programmer Skills – Now

Programmer 1)	Programmer 2)	Programmer 3)
Project management	Submission experience	Communication and intercultural understanding
Sound SAS Programming	CDISC	Project Management
Team work		
Good SAS knowledge	Good communication	Good therapeutic knowledge
Technical Expertise	Expertise/knowledge of CDISC standards	Communication
Technical programming skills	Project management skills	Communication skills
Statistical Software Coding	Analytical Thinking	Industry Standards
Technical (programming) skills	Communication / teamwork	Knowledge of standards (e.g. CDISC)
technical skills	project leadership	team work
in depth SAS	communication	
communication	project management	technical ability
Analyst	Software Programmer	Data Standards
Technical expertise	Communication	Leadership
Technical skills	Communication	Project Management

Programmer Skills – Future

Programmer 1)	Programmer 2)	Programmer 3)
SAS SAS Programming	CDISC	Project Management
Team work		
Strong technical SAS	Communication	Therapeutic knowledge
Expertise/knowledge of Industry standards	Project Management	Communication
Technical programming skills	Project management skills	Communication skills
Industry Standards	Use of Global Reporting Technology	Analytical Thinking
Technical (programming) skills	Knowledge of standards (e.g. CDISC)	Project management
project leadership	communication	technical
In depth knowledge of multiple products	Communication	validation
communication	project management	technical ability
Analyst	Helathcare Data Knowledge	Consultancy
Specialist Domain expertise	Project management	Standards - CDISC etc.
Communication	Financial understanding	Project Management

My View

- A world of **Opportunities**, but we have to change...

Changing Face of Programming work

- Automation of Programming tasks as we adopt standards for CSRs and Submissions
 - 80% standard / 20 % Bespoke
- Standard work can be done by lower skills set or made transactional
 - Offshore/Outsource
- Bespoke work – needs close contact with Clinical team to gain competitive advantage and insight

Programmer to Analyst

- European Programmers must change to Analysts
 - Work with partners, define needs together
 - Anticipate needs
 - Be custodians of Information

Market and Customers

- Changing Market
 - Pressures
 - Price
 - Pipeline
 - Focus on Safety
 - Customers
 - Health Authorities
 - Patients
 - Buyers

New Data Sources

- Traditional Data
 - Internal Data Repositories
- New Data Sources
 - Health Economic Databases
 - GPRD
 - Prescription Data
 - Electronic Healthcare Records

New Information Delivery Platforms

- Interactive tools
 - Side by Side Data Exploration with Clinical Teams
 - Knowledge Cubes
- Your Pharma Information App Store !
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Your View