



### Title: 2018 China Industry Software Benchmark Data

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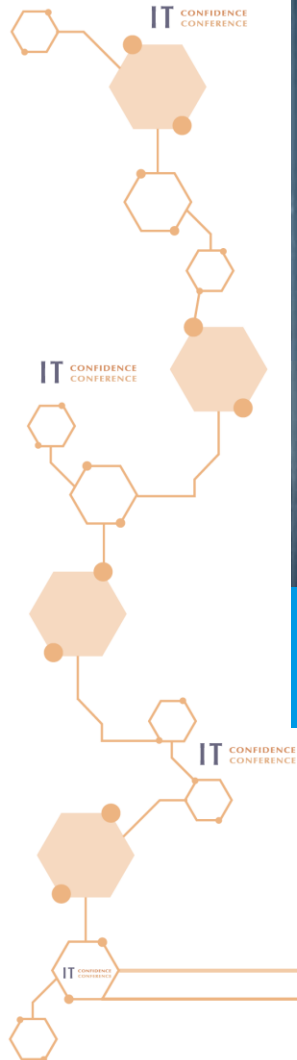
Holdings		
Mexico	Colombia	Guatemala
Bolivia	Cameroon	Democratic
Spain	El Salvador	Republic
Ecuador	Taiwan	of Congo
Peru	Paraguay	Nicaragua

# About Me



## Ying Liu

- SPI China technical expert and 2017 ISBSG Annual Conference speaker.
- Microsoft China as senior Technical Evangelist, research field as More Personal Computing and Next Generation Human-Computer Interaction.
- IBM certificated PMP lecturer
- Worked for Nortel , Alcatel-Lucent Beijing R&D center as Quality Manager.
- Guest professor of Beijing Jiaotong University (BJTU)and Beijing University of Posts and Telecommunications(BPTU).



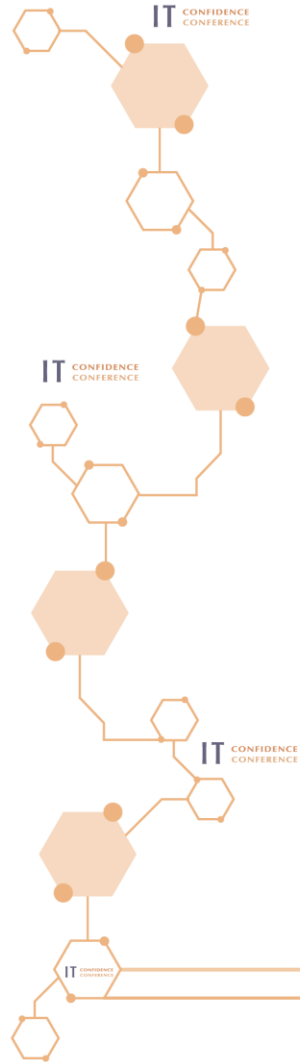
# Agenda

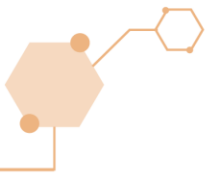
- About CSBSG
- 2018 China Industry Software Benchmark
  - Productivity data
  - Defect Density data
  - Man-month data
  - Workload distribution ratio



# About CSBSG

- China Software Benchmarking Standards Group(CSBSG) was founded in Jan 2016.
- SPI China built benchmarking data platform,2 repositories of IT software development / maintenance data. This data originates from trusted, China IT organizations.
- China standard released at April 2017.
- CSBSG cooperation with ISBSG at 2017, had data exchanged with international database repositories.





# Database Respositories

Data reliability is high with full project life cycle data

# 5971

@2018 China Industry Software benchmark data source from the 5971 <Industry Software Processing benchmark database>

# 4100

2012-2016

# 836

2017

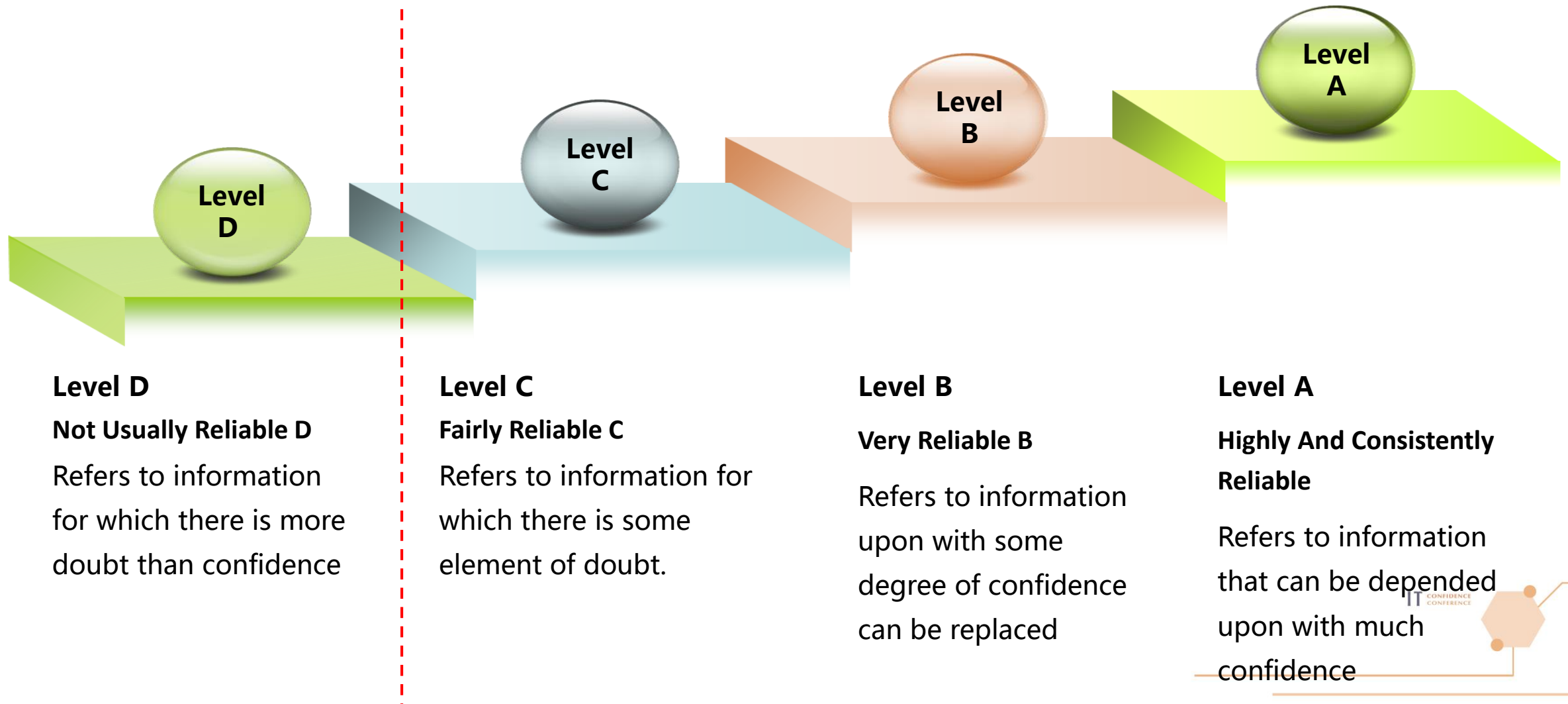
# 1035

2018



# Data Quality

All data that receive is rigorously **checked** and **cross-checked** for quality before being added to our Repositories. Each project is then assigned a rating code (A, B, C OR D) to denote its quality rating.



# Data Processing Workflow



**Data Author**



**Data Administrator**



**Audit Expert**

Project Historical data

Data integrity check

Data Auditing

Organization No. and allocation of items

Anonymous treatment

Data storage

Update baseline database

FP counting and auditing

Processing data auditing

Data reliability evaluation

Normalizing treatment

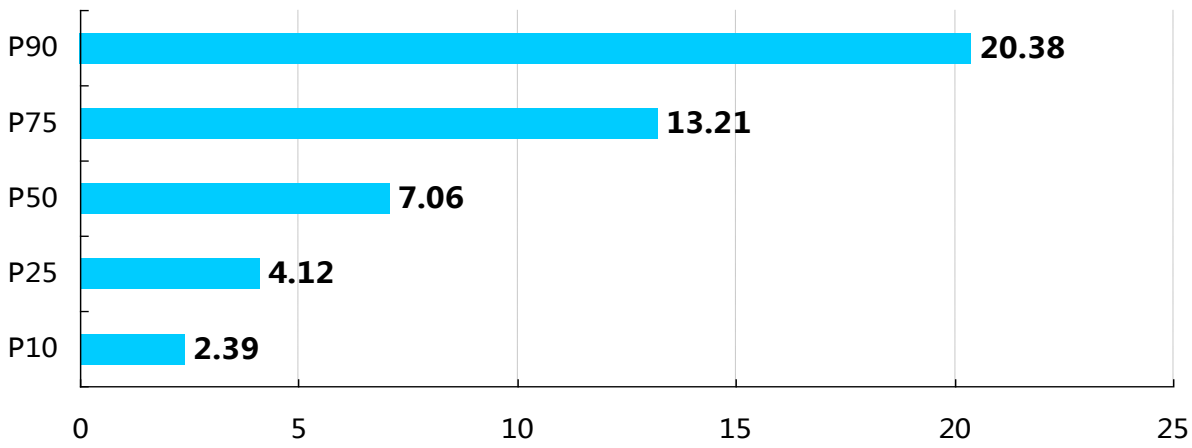
Baseline comparison report

Baseline report



# 2018 China Industry-wide Productivity data

Productivity (Unit : Man-hour/FP)				
P10	P25	P50	P75	P90
2.39	4.12	7.06	13.21	20.38

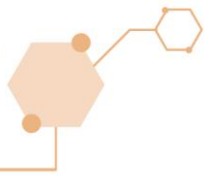




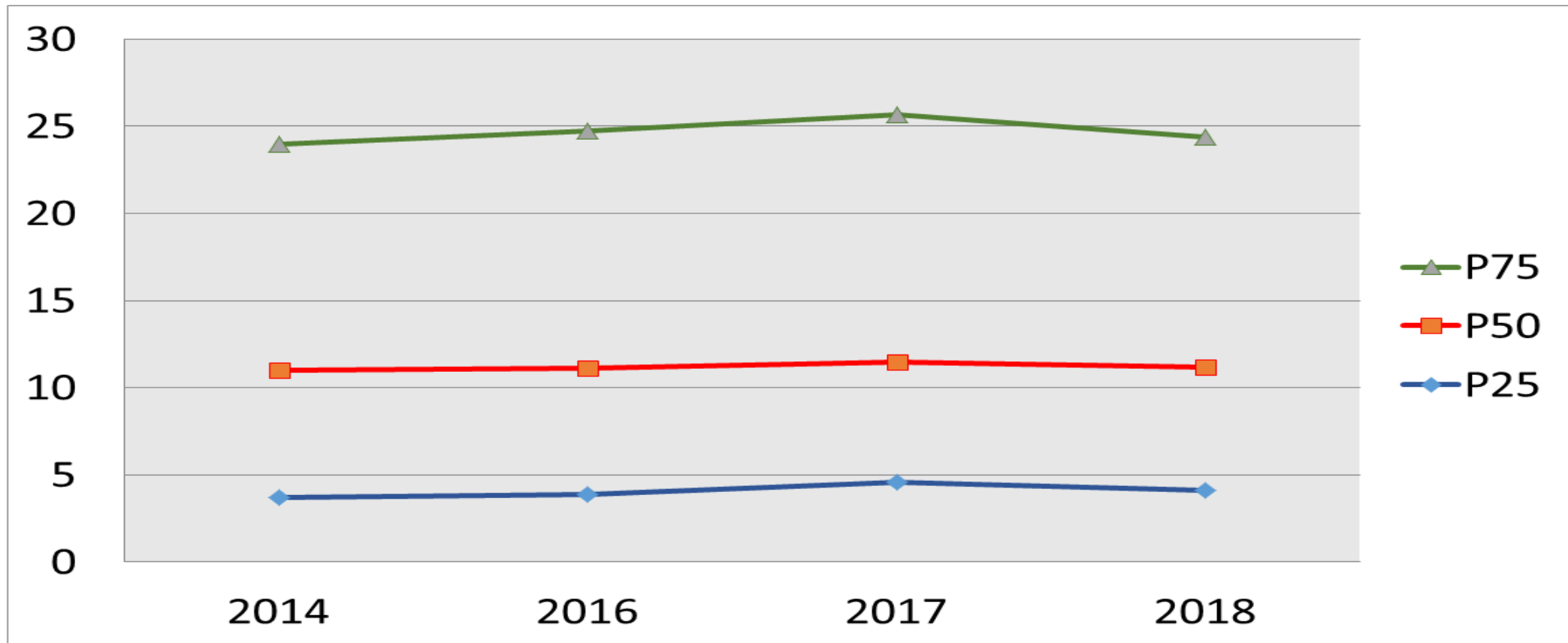
# 2018 Industry Sector Productivity data

Industry Sector	P10	P25	P50	P75	P90
Financial	4.15	6.90	12.70	19.35	27.75
Telecommunications	3.13	5.31	12.15	20.65	29.20
Government	1.69	3.25	6.58	12.31	15.16
Energy	2.07	4.02	7.32	15.49	28.98
Transportation	2.31	3.96	7.22	20.11	30.23
Manufacture	1.98	3.66	9.25	18.26	25.49

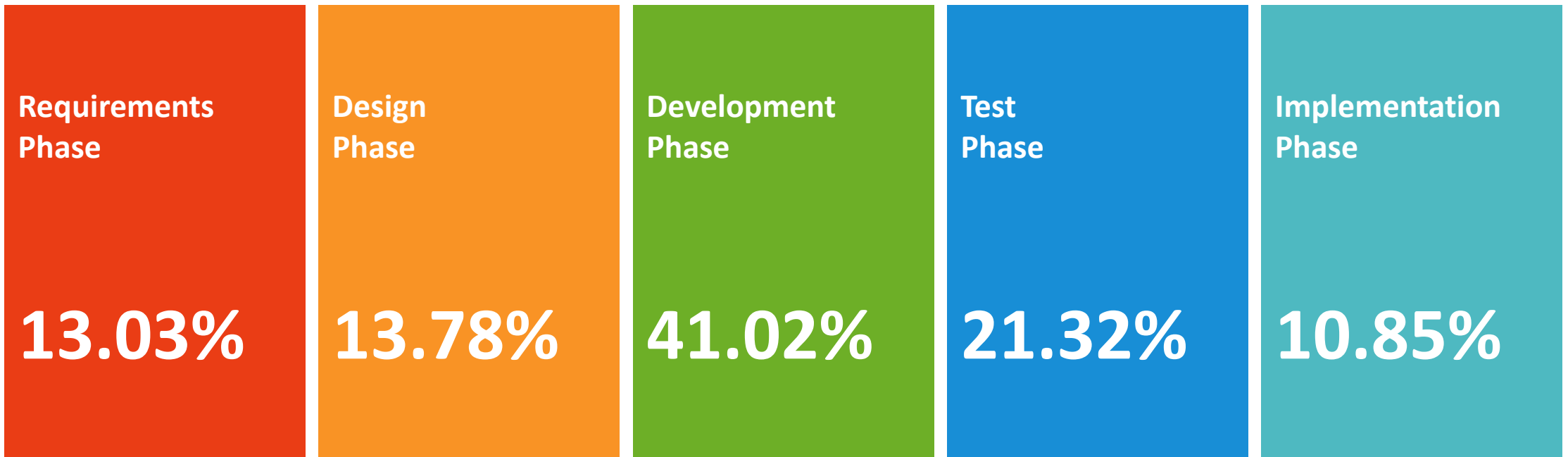




# 2014-2018 Productivity Benchmark Data Trends



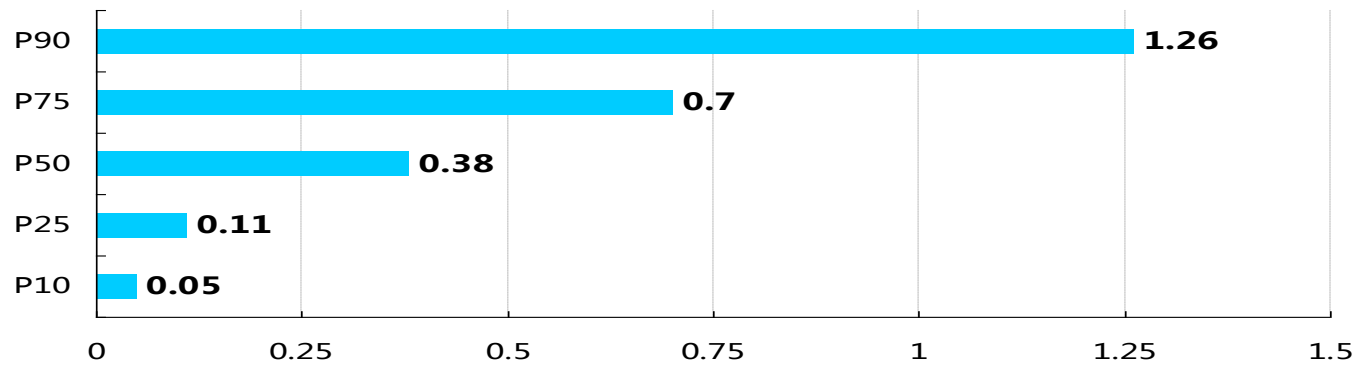
# Workload Distribution Ratio



# Defect Density

Defect Density (Unit : Defect/FP)

P10	P25	P50	P75	P90
0.05	0.11	0.38	0.70	1.26





# Man-month Fee of China Top10 Cities



City	Man-month ( 10K RMB )	Man-month ( USD \$ )
Beijing	2.57	3756
Shanghai	2.51	3668
Shenzhen	2.42	3537
Guangzhou	2.35	3434
Dalian	2.68 ( overseas outsourcing )	3916
Hangzhou	2.10	3069
Nanjing	2.06	3010
Xiamen	1.98	2893
Tianjin	1.95	2849
Wuhan	1.78	2601





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