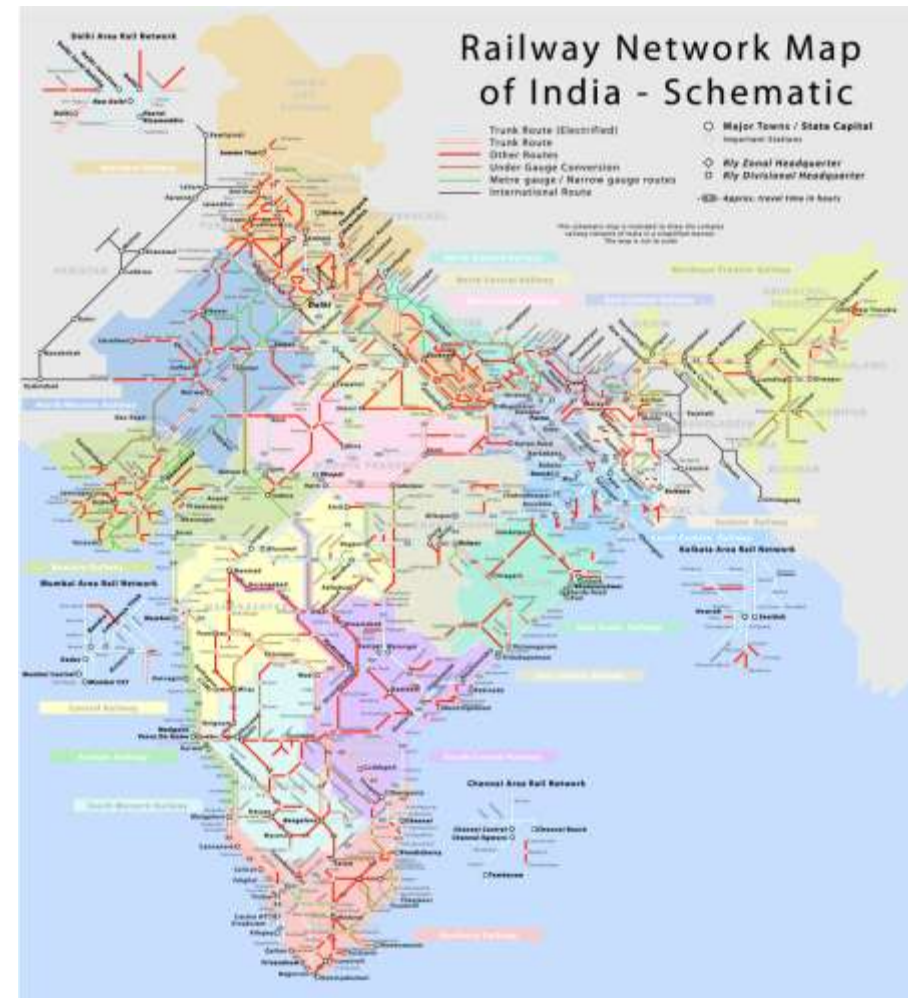


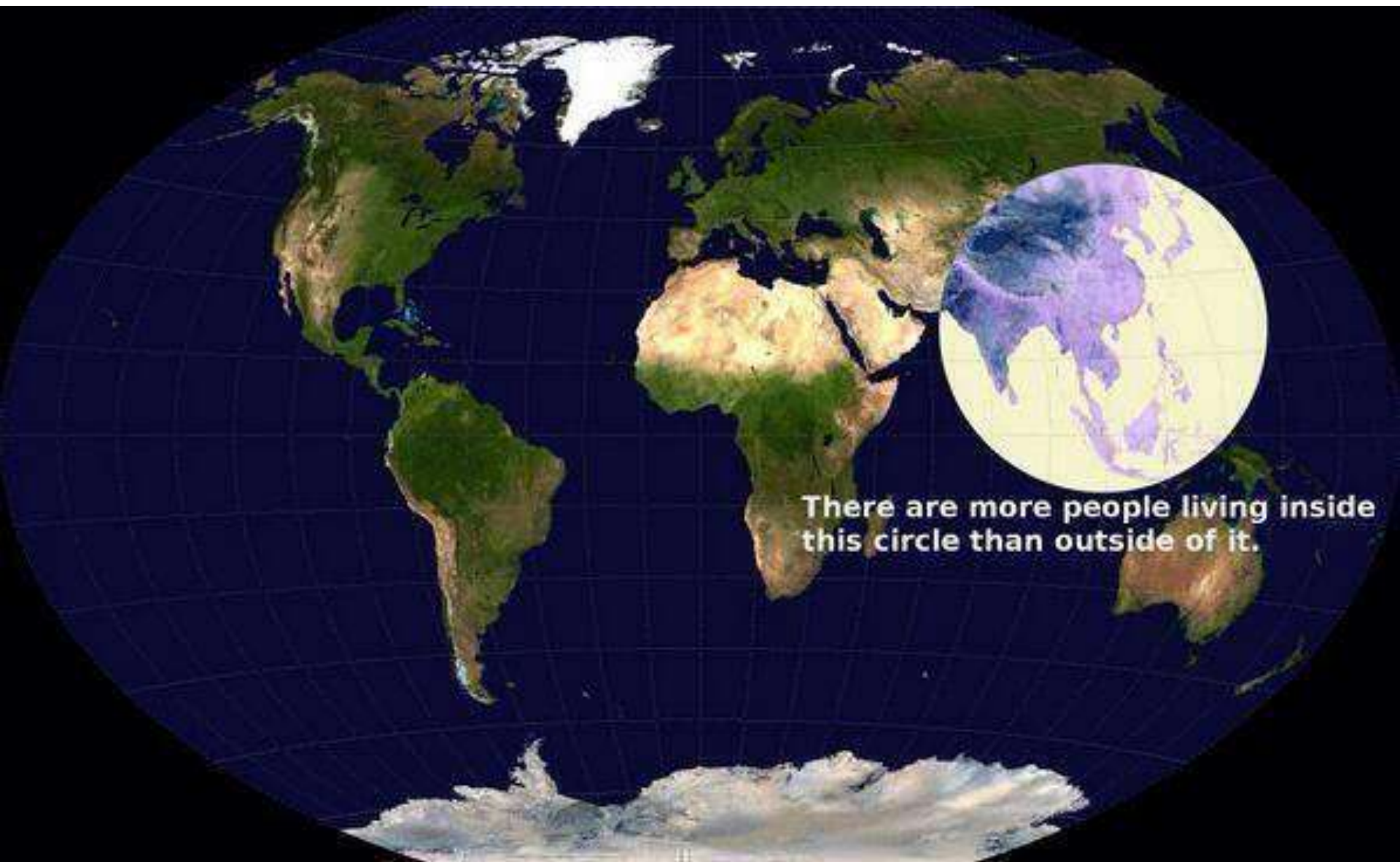


***WELCOME TO
INDIA***

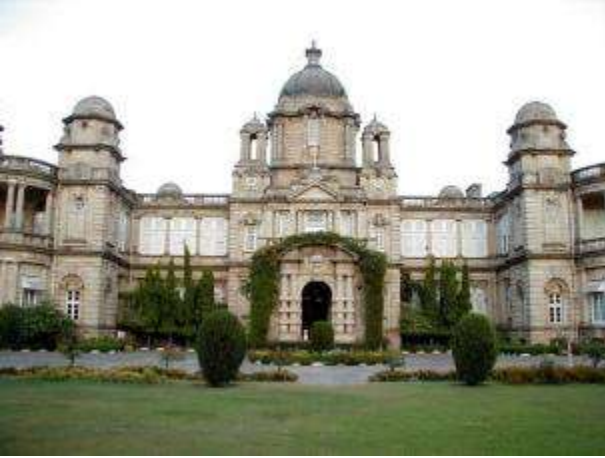
WELCOME TO INDIA

WELCOME TO INDIAN RAILWAYS





**There are more people living inside
this circle than outside of it.**



**NATIONAL ACADEMY OF INDIAN RAILWAYS
AND
ASIAN INSTITUTE OF TRANSPORT DEVELOPMENT**

WELCOME THE PARTICIPANTS
OF
BIMSTEC PROGRAM

ON COSTING AND PRICING OF RAIL TRANSPORT SERVICES

COURSE DIRECTOR

- Name
 - Shailendra Jaiswal
 - Senior Professor Management
- Email
 - Shailendra_jaiswal@yahoo.com
 - spmgt@mail.rscbrc.ac.in
- Mobile
 - 09974003522
- Office
 - Railway Phone 45213
 - P&T 0265-2651957

Associate Course director

- Name Hublal Jagan
- Email ppm@mailrscbrc.ac.in
- Mobile 9601285934

Local Visit on

08-02-2014

And

09-02-2014

Date	S1-S2	S3-S4	S5-S6
03.02.2014	Registration, Introduction, by SPMGT Inaugural session keynote Address by DG/NAIR Photographs at 1100 hrs	Strategic costing and pricing by Mr. Sanjeevan Kapshe, Ex Faculty NAIR	Global Economic Scenario By T C A Srinivas Raghavan, Business line
04.02.2014	Fundamentals of costing By S J Joshi Institute of Cost Accountants	Allotment of projects on Cost reduction by SPMGT	Cost Effective Transport for Economic Growth by Mr. Raghu Dayal
05.02.2014	Pricing in Public Utilities, Social- Benefit Cost Analysis By Nitin Ghag Senior Economist	The Estimation of Indian Railway Cost Function by Dr Alivelu, Associate Professor, Centre for Economic and Social Studies	Principles of Freight Pricing by Mr. K. Siva Prasad,CFTM
06.02.2014	Economic Cost and Benefits of Railway Transport by Professor Raghuram, IIM ADI	Costing and Pricing of container services by Ms. Alli Rani, Director Finance, CONCOR	Meeting with DRM/ BRC
07.02.2014	Accounting Reforms and Transport Costing by Mr. R.K.Minocha, ED Accounting Reforms/Railway Board	Costing and Pricing of Infrastructure Services under Regulatory Environment by By Mr. D.K.Joshi, Chief of Research, CRISIL	Costing and Pricing for sustainable transport services by SPFM

08.02.2014	Local Visit		
09.02.2014	Local Visit		
10.02.2014	Classification of Commodities by Mr. B.V.L.Narayana, Ex. SPTM/NAIR	Activity Based Costing by Mr. Mohit Sinha , FA&CAO/C/NR	Costing and Pricing of RO RO Services by Vidhan Sinha, Konkan Railway
11.02.2014	Enhancing revenues through optimum pricing of services by Mr Sanjay Upreti	Revenue Maximization through dynamic pricing of Rail services by Ms. Neelam Sanghi, Dedicated Freight Corridor	Principles of Railway Passenger Pricing by Mr. A.K.Srivastava, CCM/PS
12.02.2014	Pricing, Cost Recovery and Production Efficiency in the Indian Railways by Mr. Anand Venkatesh, IRMA	Determination of pricing of transport services in PPP projects by Ms. Kalpana Dubey, E D Finance, RDSO	Costing Exercise by Mr. G.D.Paul, Railway Board
13.02.2014	Country Presentations by Participants	Country Presentations by Participants	Valedictory by DGSPMGT

Visits

	Activities	Date	Time
1	Visit to local market and crossword		17.00 hrs
2	Visit to Palace		15.00 hrs
3	Visit to Heritage Railway Museum		11.15hrs
4	Cultural Programme		19.00 hrs

PRESENTATIONS BY PARTICIPANTS

- Introduction to their country economic and transport environment .
- Costing and pricing of a transport service in participants country
- How to make Railway systems of their country profitable
- 13 February 9 00 hrs

BANGLADESH

1. Mr. Sukumar Bhowmick

Additional Chief Engineer, Tongi-
Bhairab Double Lane

2. Mr. Syed Zahurul Islam

Director (Traffic), Bangladesh
Railway, Rail Bhawan, Dhaka

CAMBODIA

1. Mr. Chreung Sok Tharath	Deputy Director of Railway Department, Ministry of Public Works and Transport Royal Railways of Cambodia, Norodom Boulevard, Phnom Penh, Cambodia	Tel: 00-855-23-426140 Mobile : 00-855-11-456878	Fax : 00-855-23-426140 E-mail : tharath@gmail.com
----------------------------	---	--	--

BHUTAN			
Mr. Sithar Dorji	Policy and Planning Division Ministry of Information and Communications	+975-2-322567 EXT. 380	

BHUTAN

Mr. Sithar Dorji

Policy and Planning Division
Ministry of Information and
Communications

+975-2-322567 EXT. 380

INDONESIA

1	Ms. Titiek Masdini Agustriana	Senior Manager of Business Development, Indonesia Railways Karya Building, 11 th Floor, JI. Medan Merdeka Barat No.8 Jakarta 10110	Tel: 0062-21-3506526 Mob: 00-62-81584182060	ina_masdini@yahoo.com
2		Karya Building, 25 th Floor, JI. Medan Merdeka Barat No.8 Jakarta 10110	Tel: 0062-21-3517602 Mob: 00-62-8121078939	paramitanugraha@gmail.com

MALAYSIA

1.	Mr. Abdul Salim Shah Abdul Aziz	Manager Corporate Planning, KTMB, No. 21, Jalan Meru 10, Taman Meru 4, 42200 Klang, Selangor, Malaysia	Tel: 03 2263 1445 Mob: 019 336 0728	salimshah@ktmb.com.my
2.	Mrs. Norhanani Jaapar	Manager Corporate Planning, KTMB, No. 7, Jalan Teratai 1/9d, Taman Putra, 56100 Ampang, Kuala Lumpur, Malaysia	Tel: 603-2263 1447 Mob: 6012-244 0744	Fax: 603-2710 5719 norhanani@ktmb.com.my

MYANMAR

1..	Mr. Aung Moe Kyaw	Traffic Manager (Operating) Myanmar Raiways Myanmar		
2..	Mr. Aye Maung	Division Traffic Manager Myanmar Raiways Myanmar		

NEPAL

1. Mr. Rishi Paudel

Legal Officer,
Department of
Railways,
Battishputali,
Kathmandu, Nepal

PAKISTAN

1.	Mrs. Maryam Gillani	Manager Administration, REDAMCO, Pakistan Railways House # 18, Ibn-eSina Road, G-10/3, Islamabad (BS-18)	Tel: 00-9251-2353444- 7 Mobile:00-92- 03218502990	Fax No. 00-9251-2353449 Email: syedamaryamgillani@gmail.c om
2.	Miss. Bushra Rehman	STO/G, Pakistan Railways, Headquarter Office, Lahore		bushrarehmancsp@yahoo.co m

SRI LANKA

Mr. Gonapeenuwala
Vithanage Srath Sisira
Kumara

Commercial Superintendent,
Sri Lankan Railways
P.O. Box 588, No.1, D.R. Wijewardana
Mawatha,
Colombo 10, Sri Lanka

Mr. Chandrasena Nandasiri
Ranasinghe

Acting Divisional Transportation
Superintendent,
Sri Lankan Railways
P.O. Box 588, No.1, D.R. Wijewardana
Mawatha,
Colombo 10, Sri Lanka

THAILAND

Miss Sukanya Samsee	Chief of Centre Attached to Governor, State Railway of Thailand, Bangkok	Tel: +66-22-204231 Mobile: +66-16484187	sukanyasamsee@gmail.com
Miss Chonlanee Treephunprasert	Chief, Pricing Section, Marketing Division, Marketing Development, State Railway of Thailand, Bangkok	Tel: +66-22-204253 Mobile: +66-918870377	srt.pricing@gmail.com

VIETNAM

Ms. Le Khanh Chi	Expert of Operation Business Department Vietnam Railways	Tel: +84 4 39429205 Mobile: +84 902092982	Fax: +84 4 39423107 leekhanhschi@gmail.com
Mr. Do Quang Van	Chief of Safety Department, Saigon Railway Passenger Transport Company Vietnam Railways	Tel: +84 8 39143807 Mobile: +84 903819282	Fax: +84 8 38216838 doquanvangsg@yahoo.com

INDIAN RAILWAYS

Mr. Ramanand Bhagat

Deputy FA, CSTM, Mumbai – 1

Mobile: 9987640107



TIMINGS

DINING

Breakfast	08:00 to 09:00 hrs.
Lunch	13:15 to 14:10 hrs.
Dinner	19:30 to 21:00 hrs.

LIBRARY

Monday to Friday
0930 – 2000 hrs

Saturday
1000-2000 hrs (Lunch Break 1300-1500 hrs)

COMPUTER CENTER

0800 – 2400 hrs on all the days.

GATE

Lalbaug gate	Open for 24 hours
Manjalpur gate	06:00 to 22:00 hrs.
Pratapnagar gate	06:00 to 22:00 hrs.

CLOTH WASHING FACILITY

Monday, Wednesday and Friday 18:30 to 21:00 hrs.

Lets start

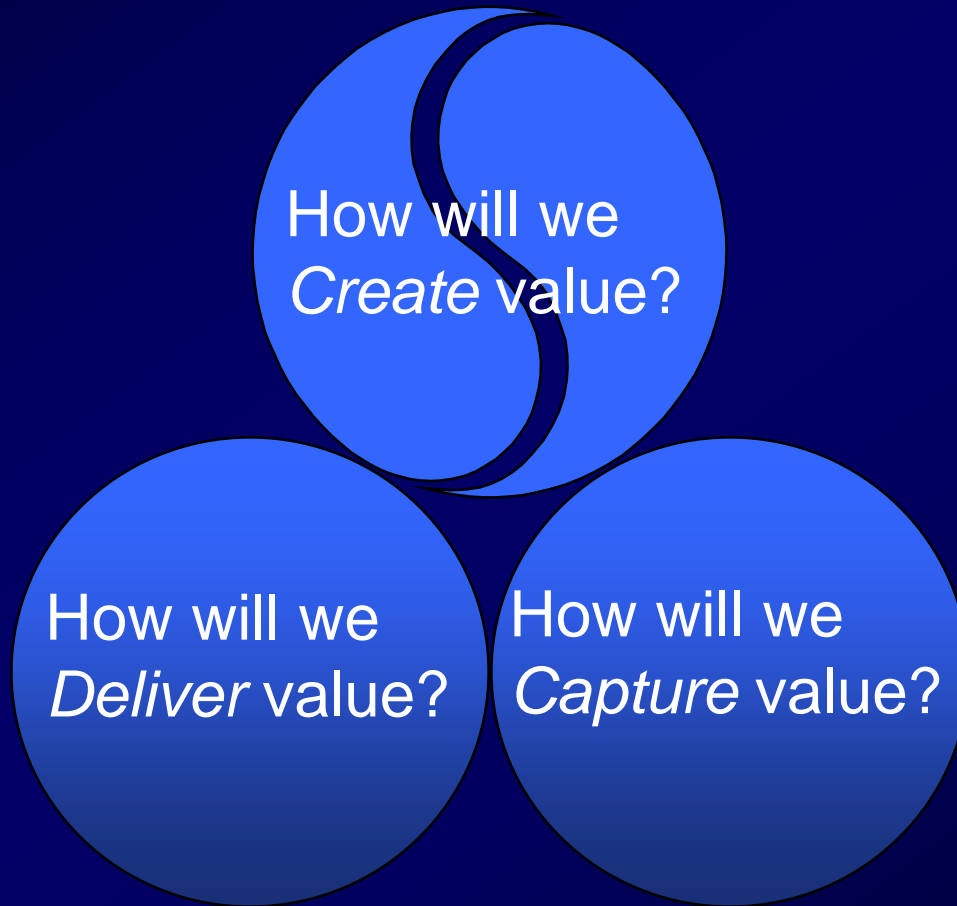
- Kindly fill in bio data form and submit
- Class Representative

प्रिया

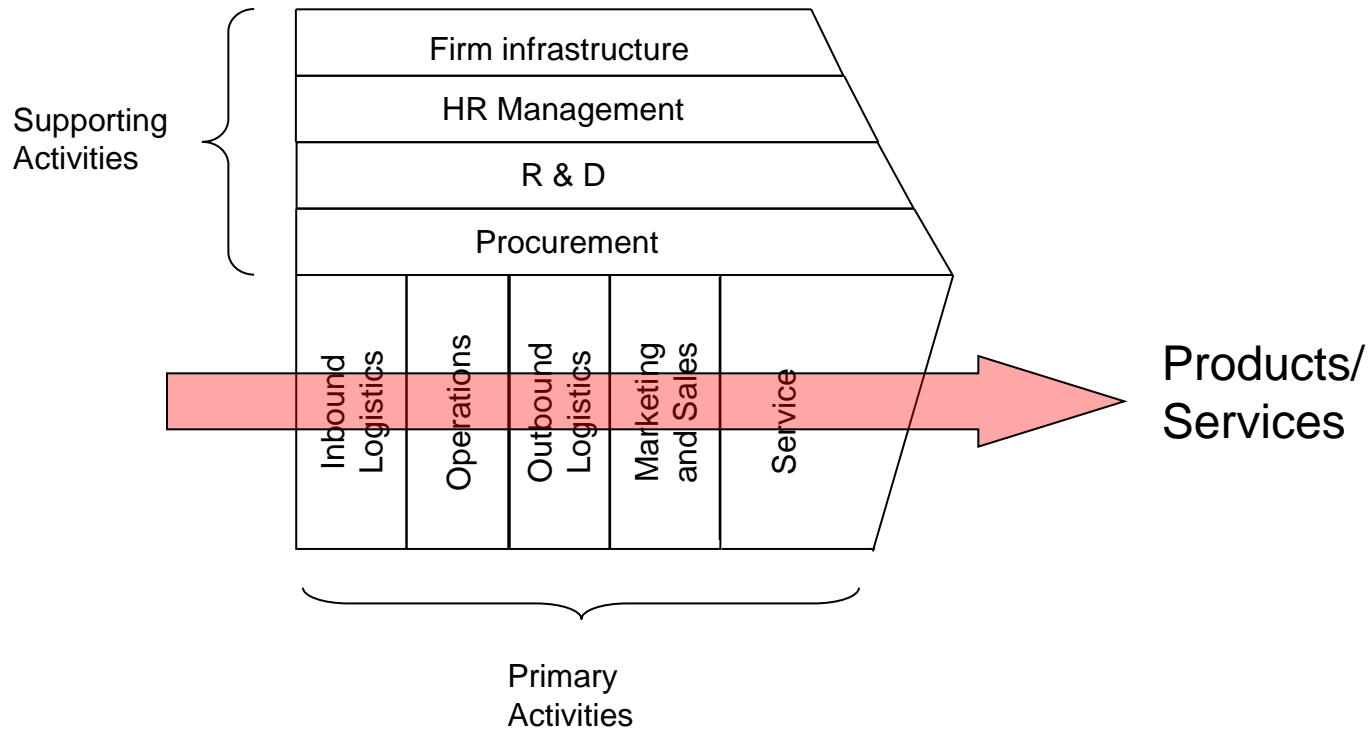
प्रिया

स्वागतम्

Permanent questions for Business



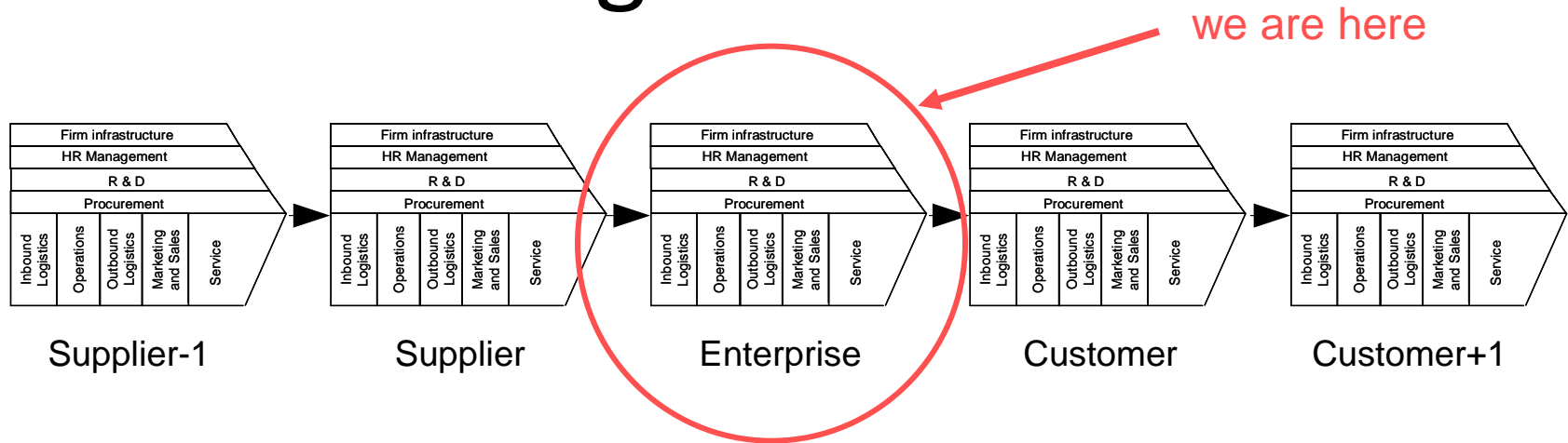
Porter's "Business Value Chain"



“A process can be seen as a ‘value chain’. By its contribution to the creation or delivery of a product or service, each step in a process should add value to the preceding steps.”

Rummler and Brache, Improving Performance

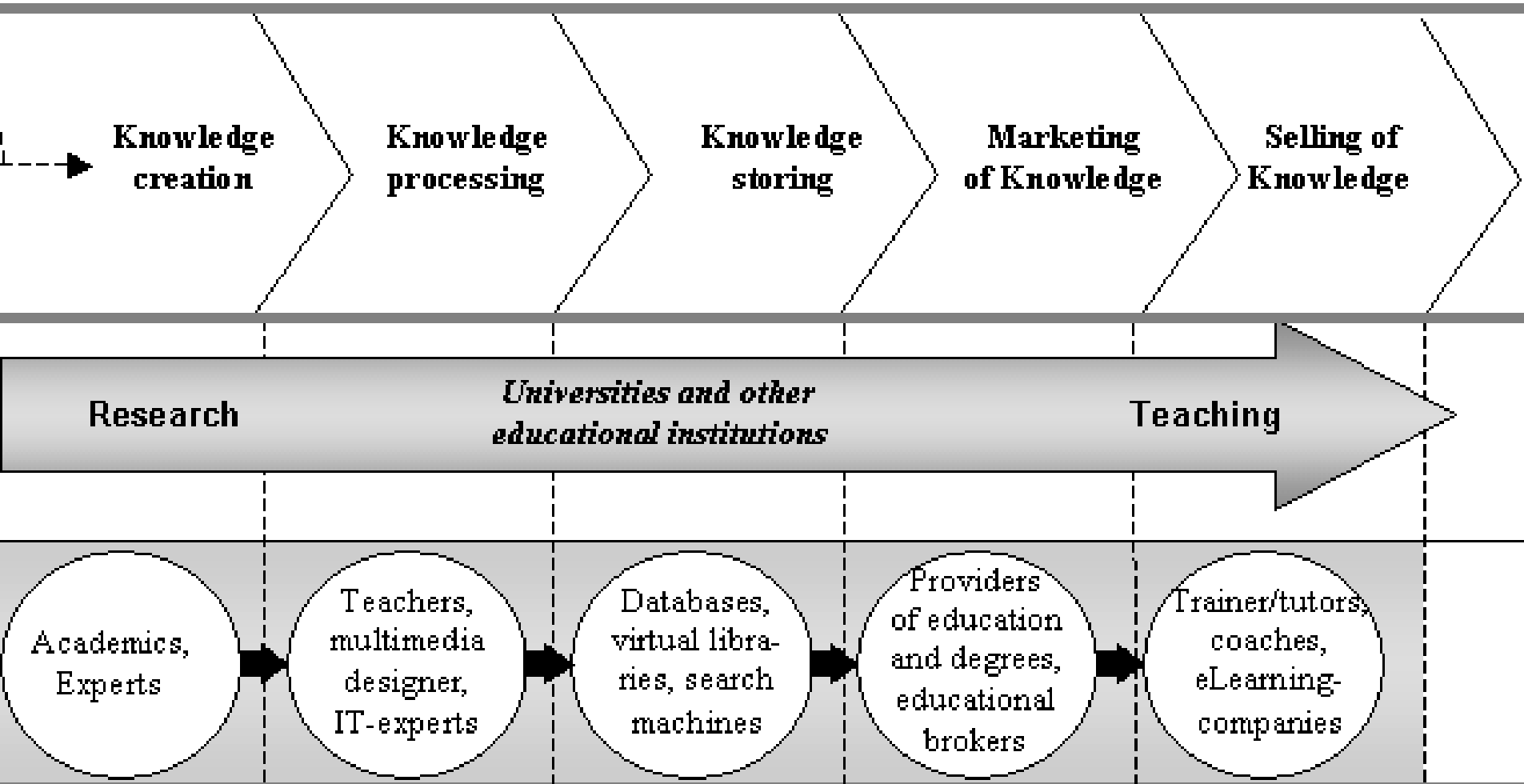
Extending the Value Chain



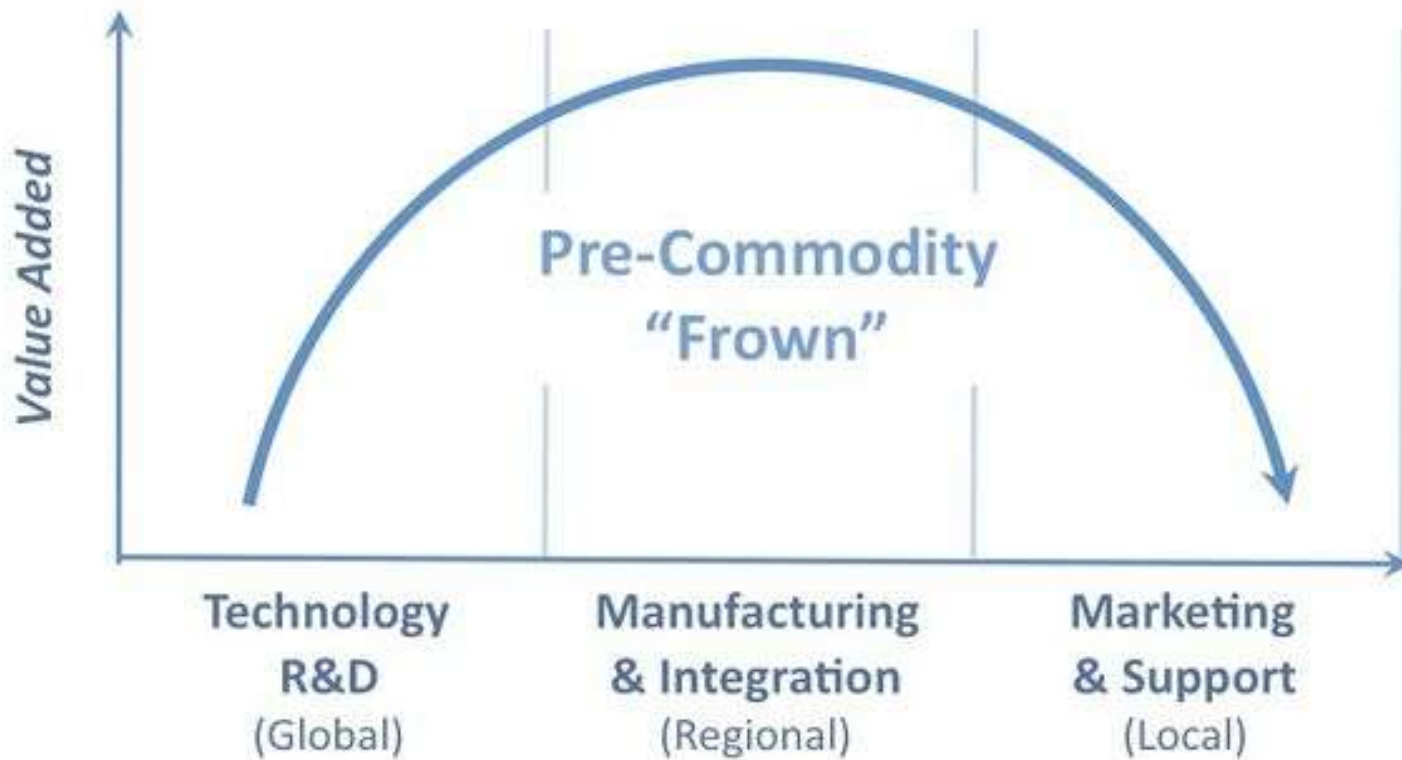
“In the future, organizations are going to have to worry about how their processes fit within their business partners business processes”

Rose Heinz, Enterprise Architect TG

Value chain of knowledge management

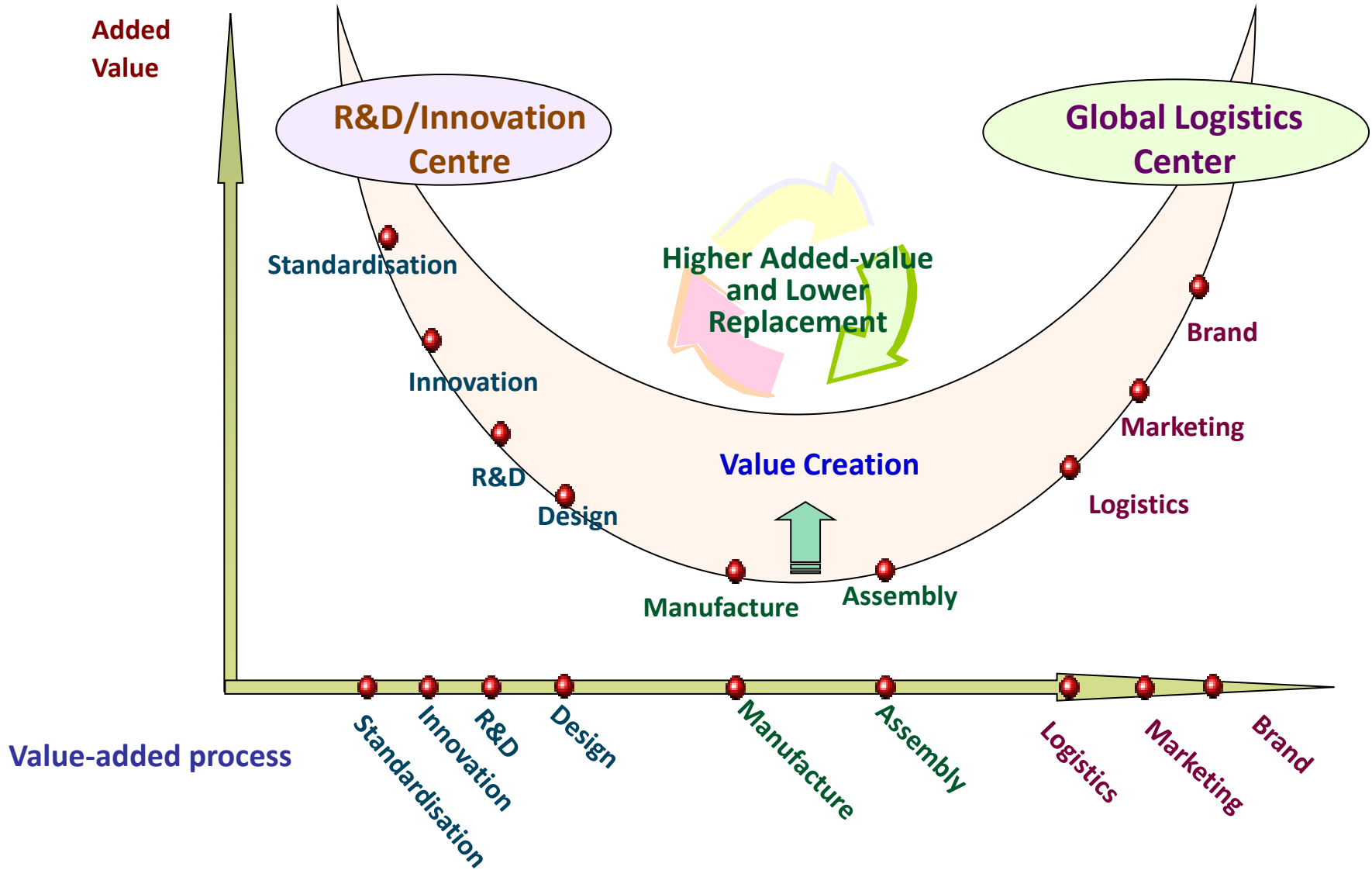


FROWN CURVE



TRANSFORMATION OF VALUE CREATION

A smile is a curve that sets everything straight



Value Chain Evolution

Costly info and coordination integrates value activities – most economical way to produce



Inputs, Manufacturing, Marketing, Distribution, Retail

Cheap information disintegrates value chains, because segment consolidators realize specialization gains and economies of scope – integrated production becomes costly



Inputs

Manufacturer

Marketer

Distributor

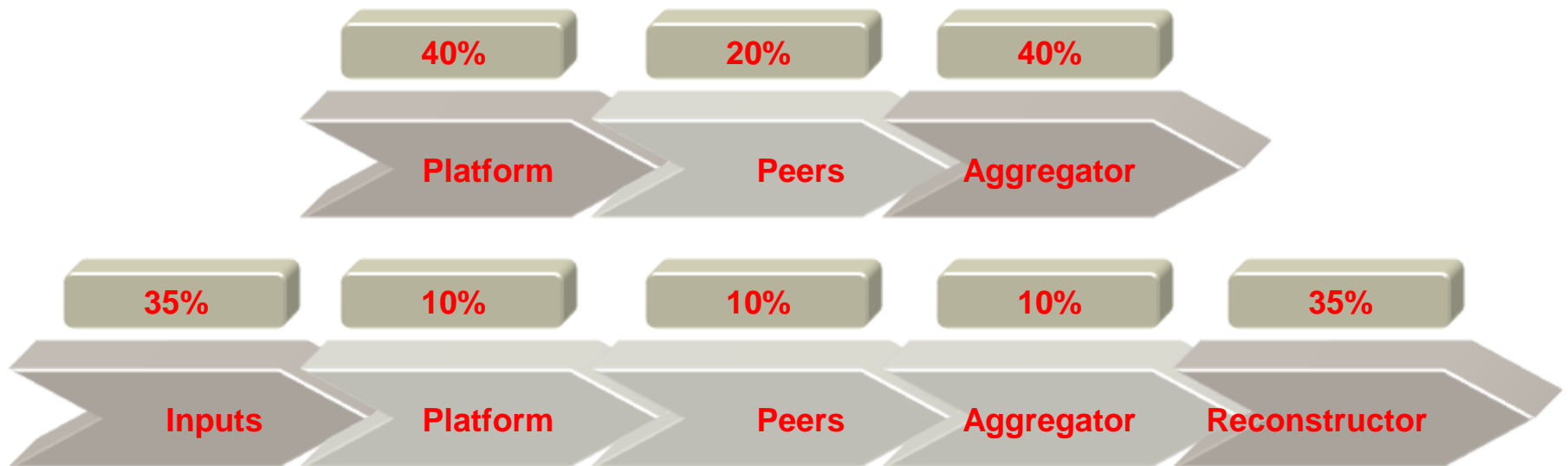
Retailer

Cheap coordination atomizes disintegrated value chains and explodes value activities within layers, because microproducers realize distributed scale economies



Value Chains & Value Appropriation

In atomized value chains, industry profitability will migrate to the edges

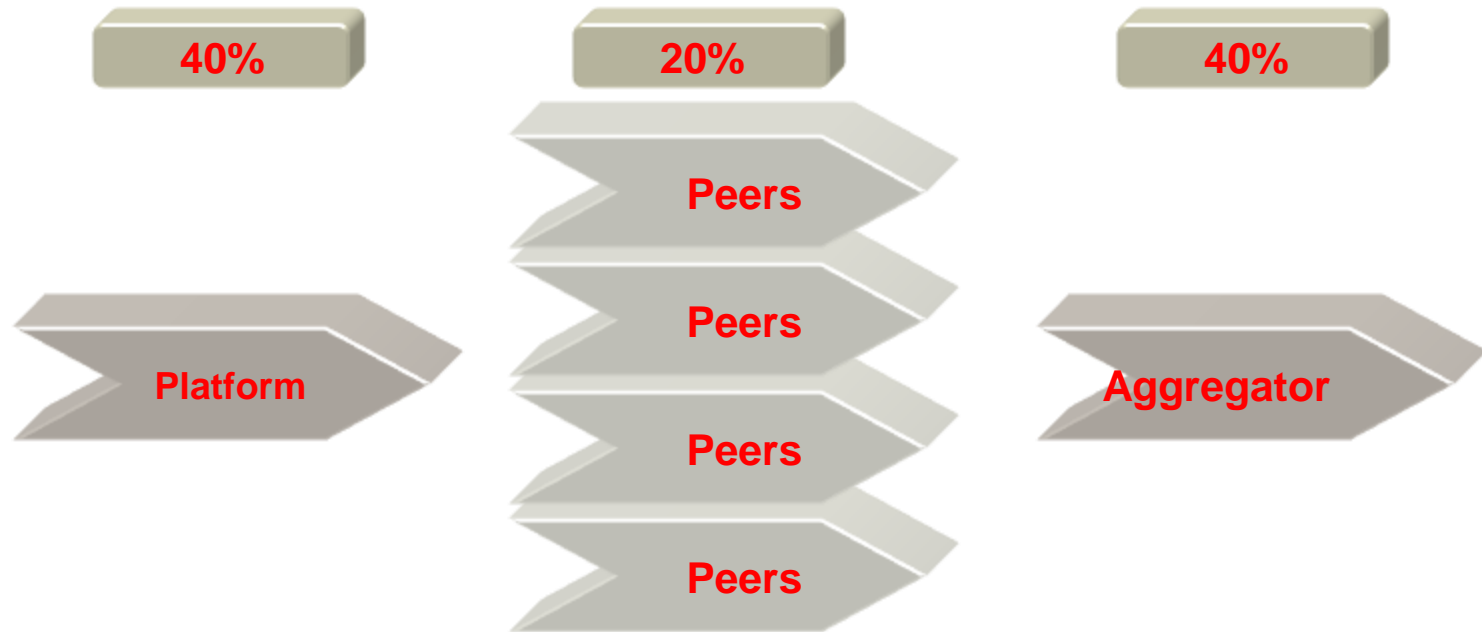


Why?

Market power in atomized landscapes is a function of relative scale: the edges can realize the greatest relative economies of scale via demand and supply side network FX. The middle of the value chain explodes and can't realize scale economies. Core competences for disintegrated value chain coordinators become core rigidities – value capture requires competences at both edges of the chain

The Explosion of the Middle

In atomized value chains, industry profitability will migrate to the edges



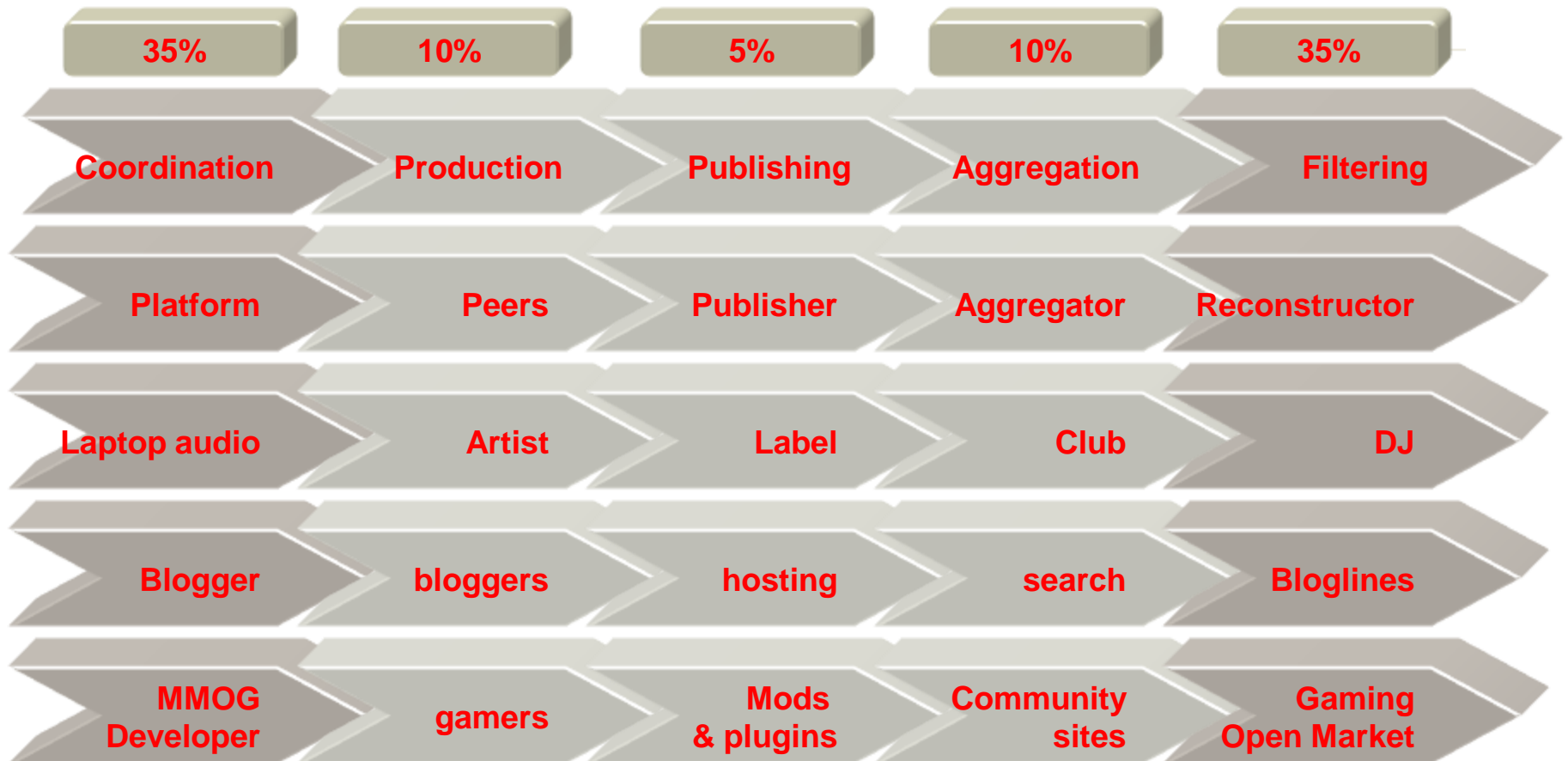
Why?

The center explodes and atomizes – hypercommoditization – and value shifts to adjacent segments, because they can realize scale economies from the exploded center's output.

Examples:

Value Appropriation Examples

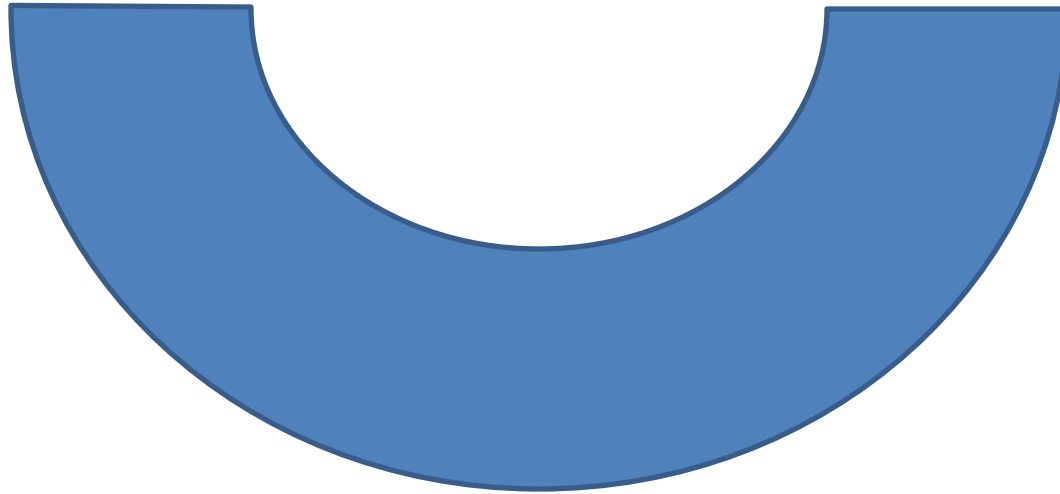
In atomized value chains, industry profitability will migrate to newer (and newer) edges



VALUE APPROPRIATION AT THE EDGES
NEW SERVICES AND BRAND
DEVELOPMENT

N
E
W

S
E
R
V
I
C
E
S

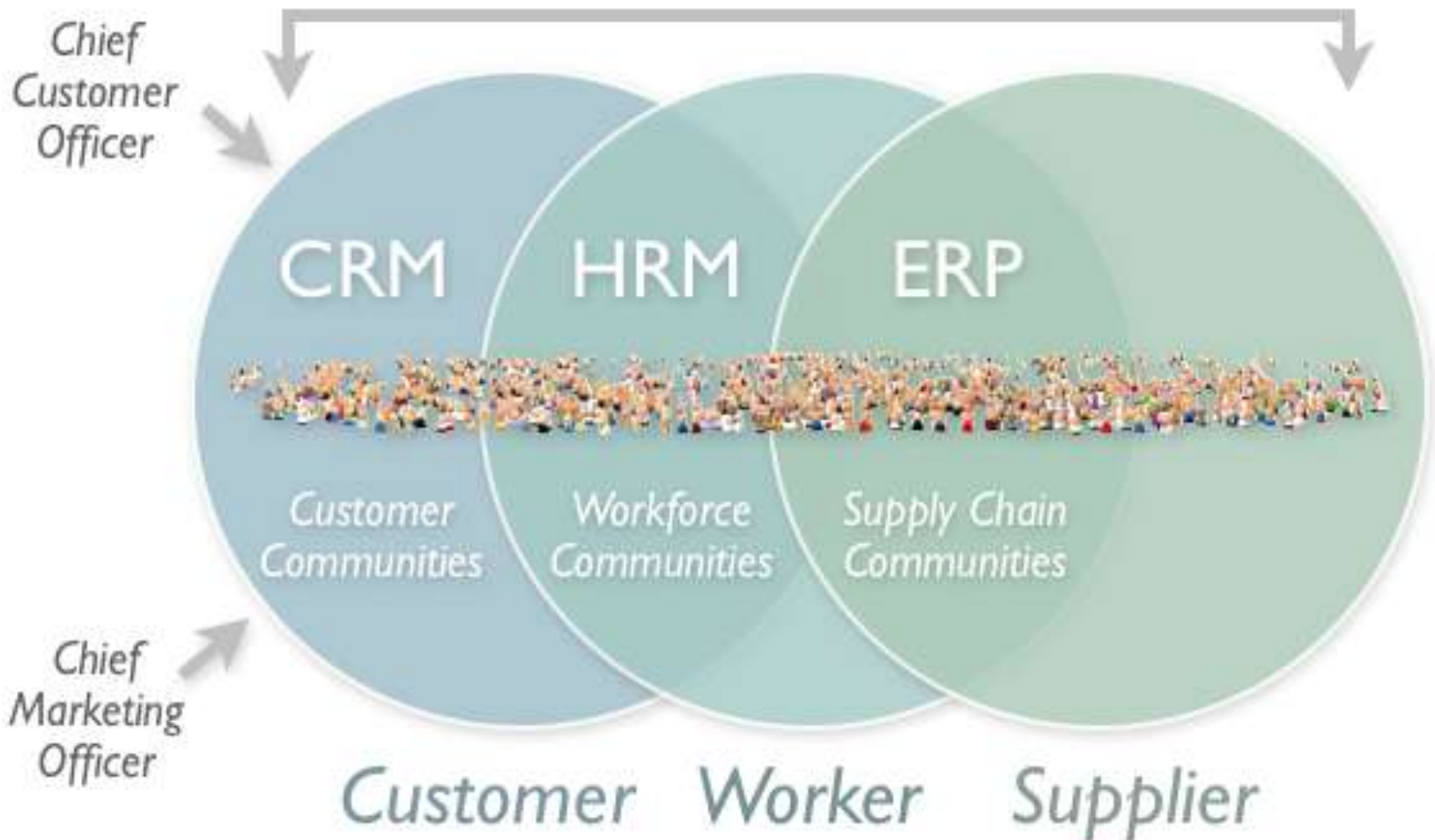


B
R
A
N
D

D
E
V
E
L
O
P
M
E
N
T

LINEAR TO NETWORKED VALUE CHAIN

The Three Spheres of the Engagement Continuum: The C-Level Social Media Executive's Purview



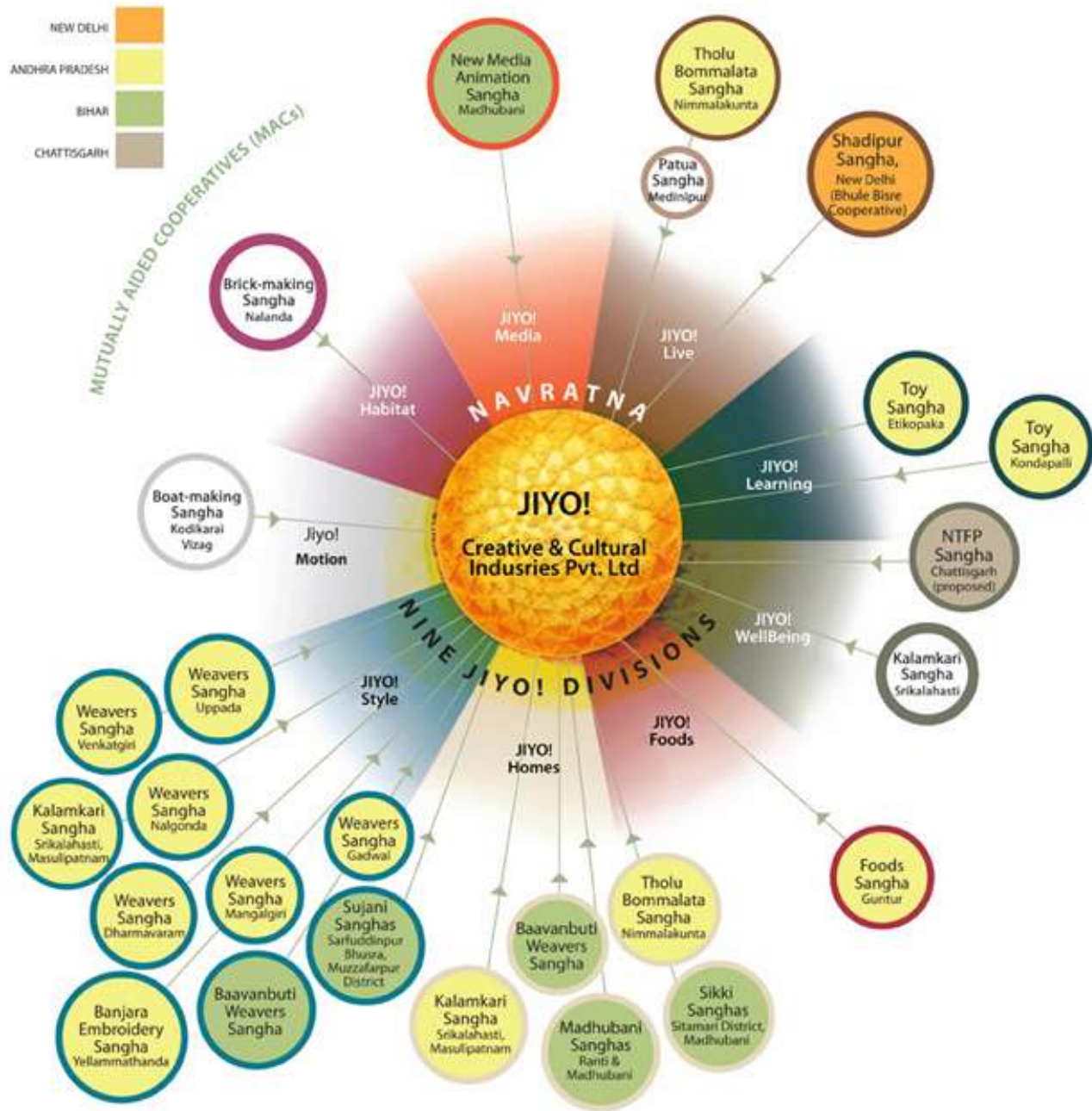
From <http://zdnet.com/blog/hinchcliffe> on 

Organizations That Fully Network their Ecosystem Inside and Outside See Significantly Higher Benefits

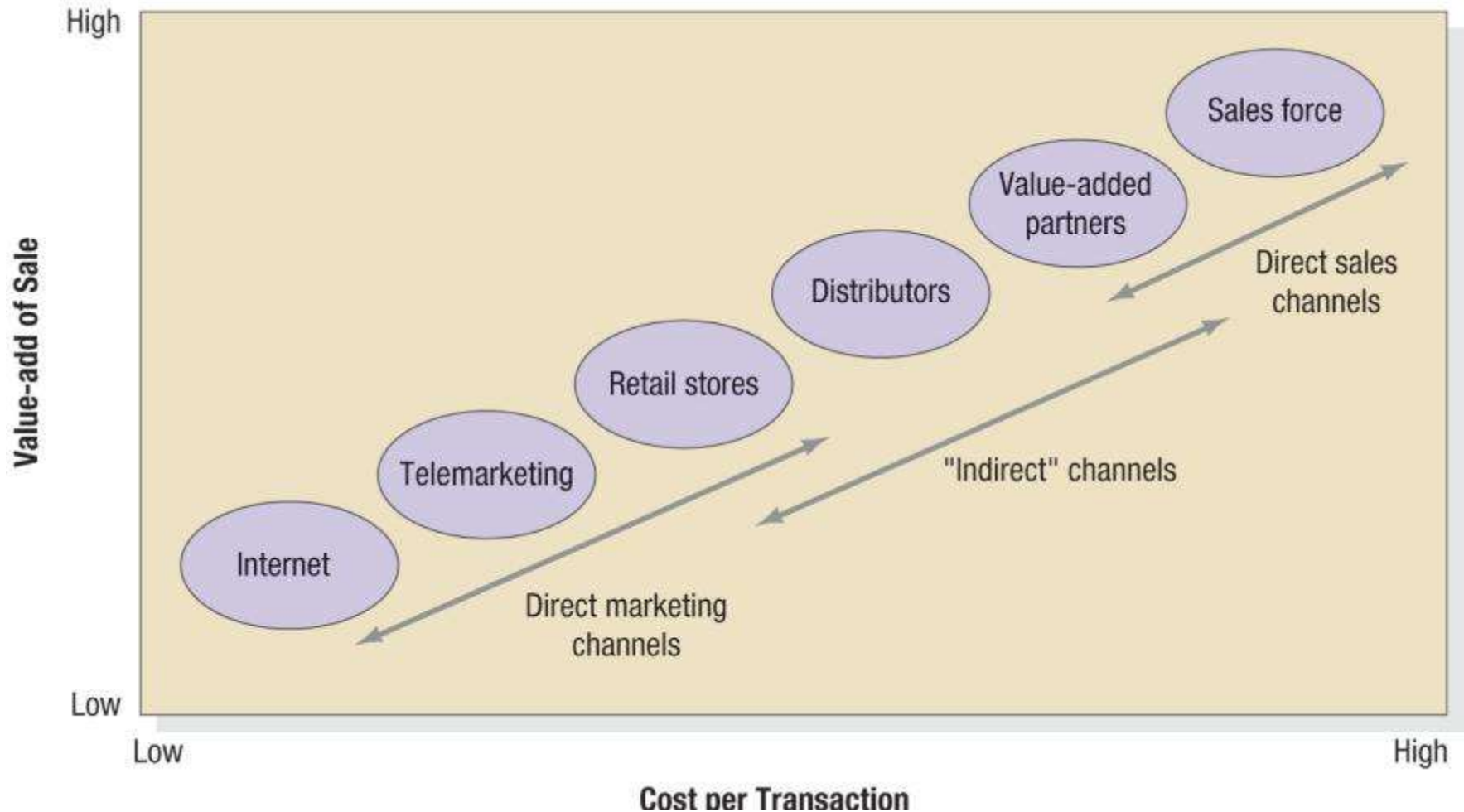
Organizational type, based on social-technology benefits

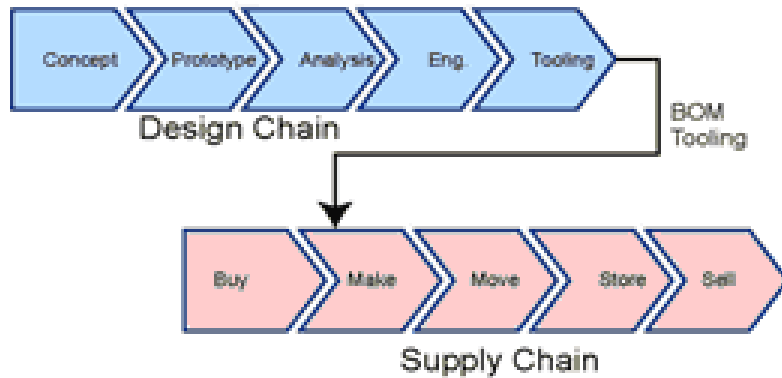


Source: 2011 McKinsey Web 2.0 Survey



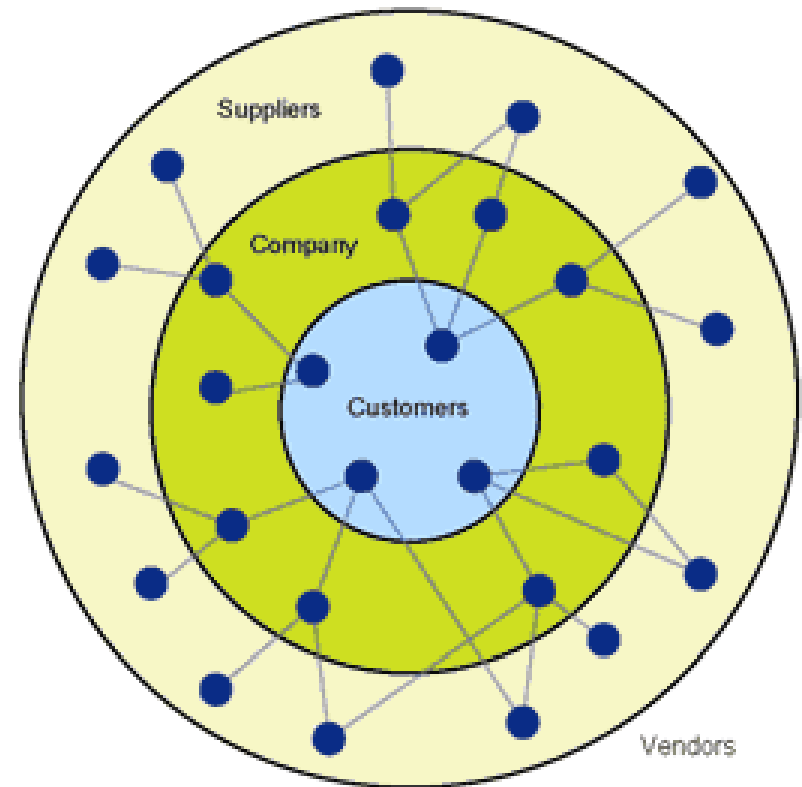
The Value-Adds Versus Costs of Different Channels





OLD SUPPLY CHAIN

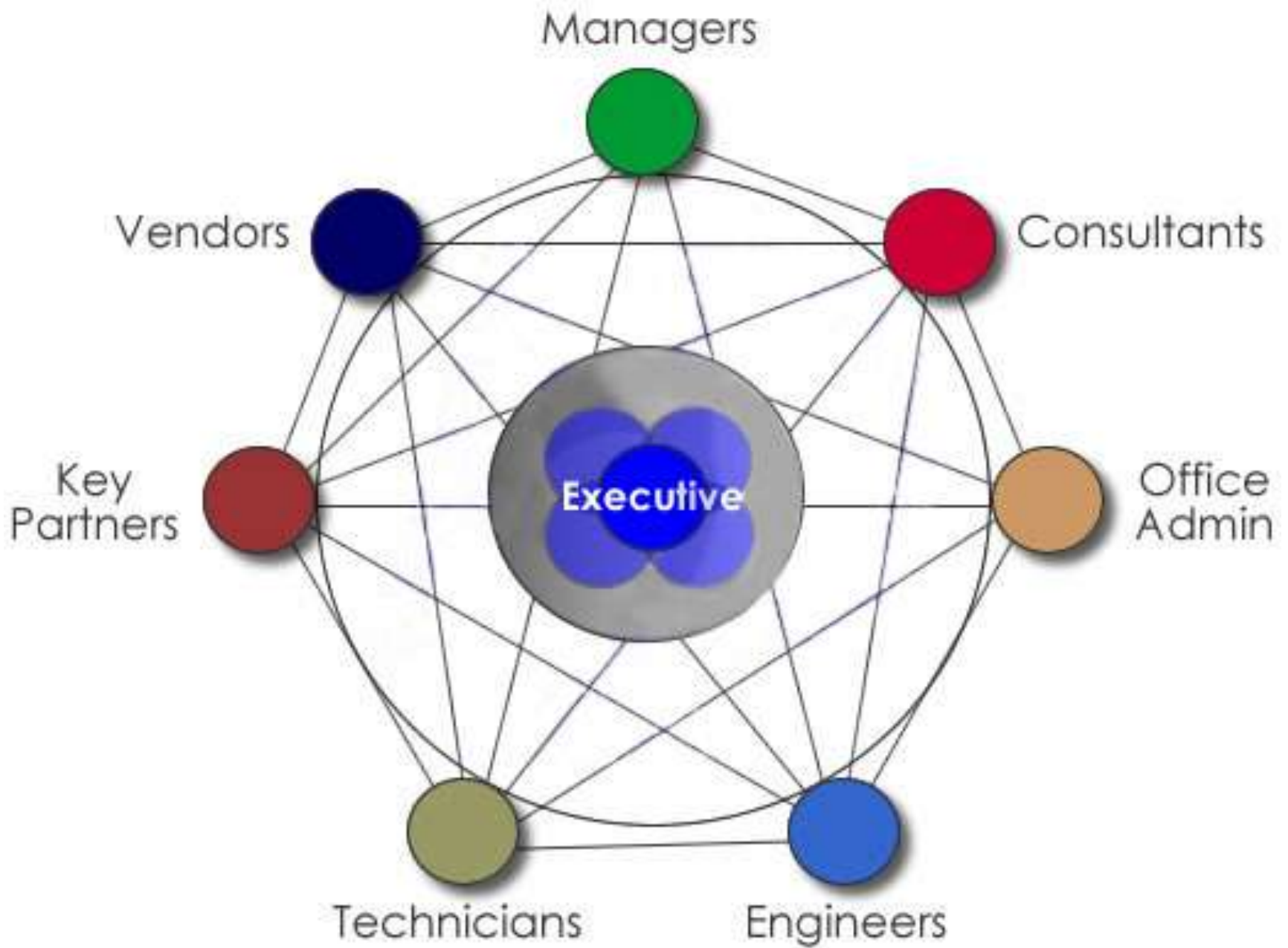
- One size fits all
- Arm's length and Sequential
- Rigid, Inflexible
- Slow, Static

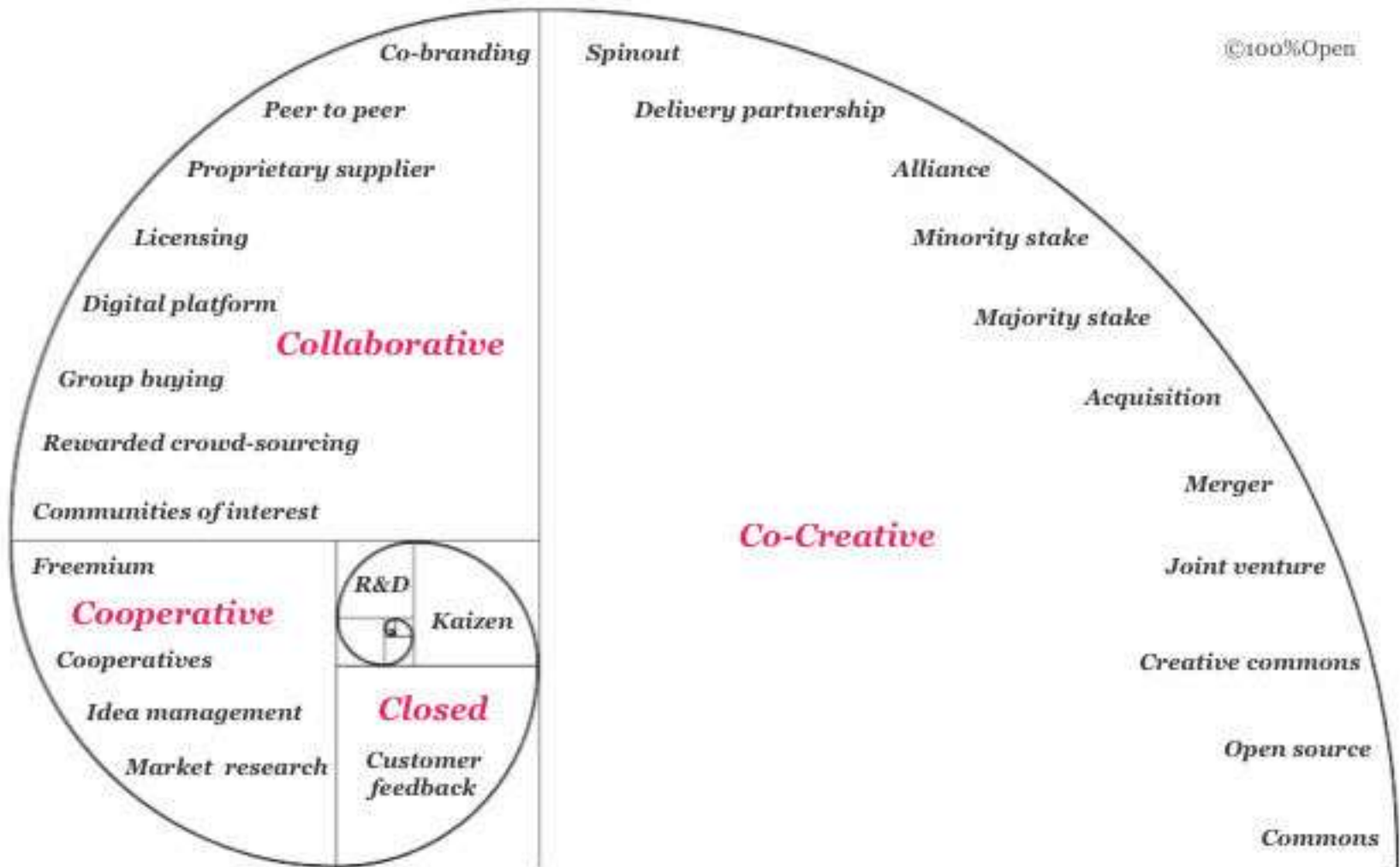


VALUE NET

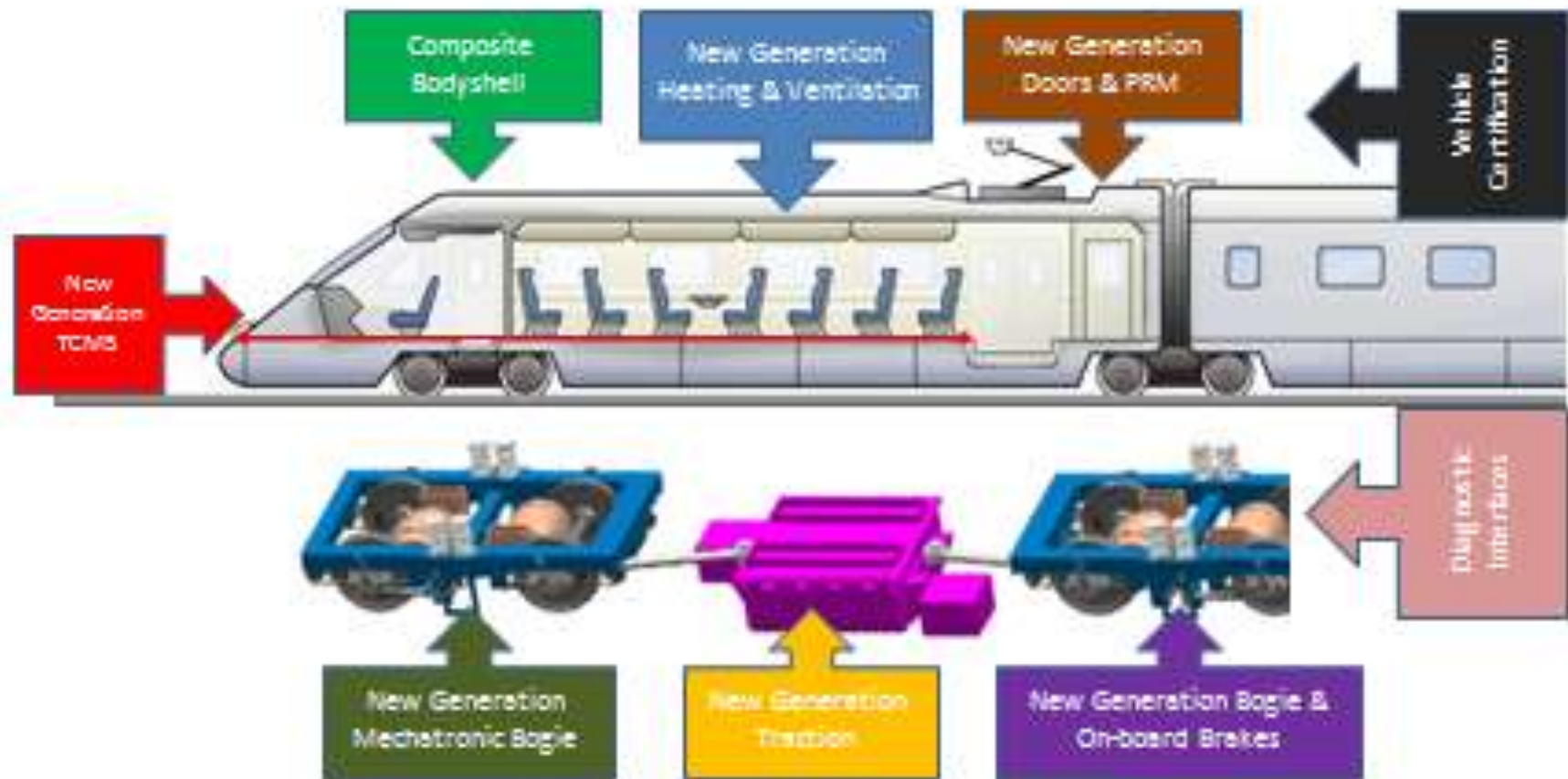
- Customer-aligned
- Collaborative and Concurrent
- Agile, Scalable
- Fast, Flow

Figure 1: Traditional supply chain versus value net (courtesy: Mercer Consulting).



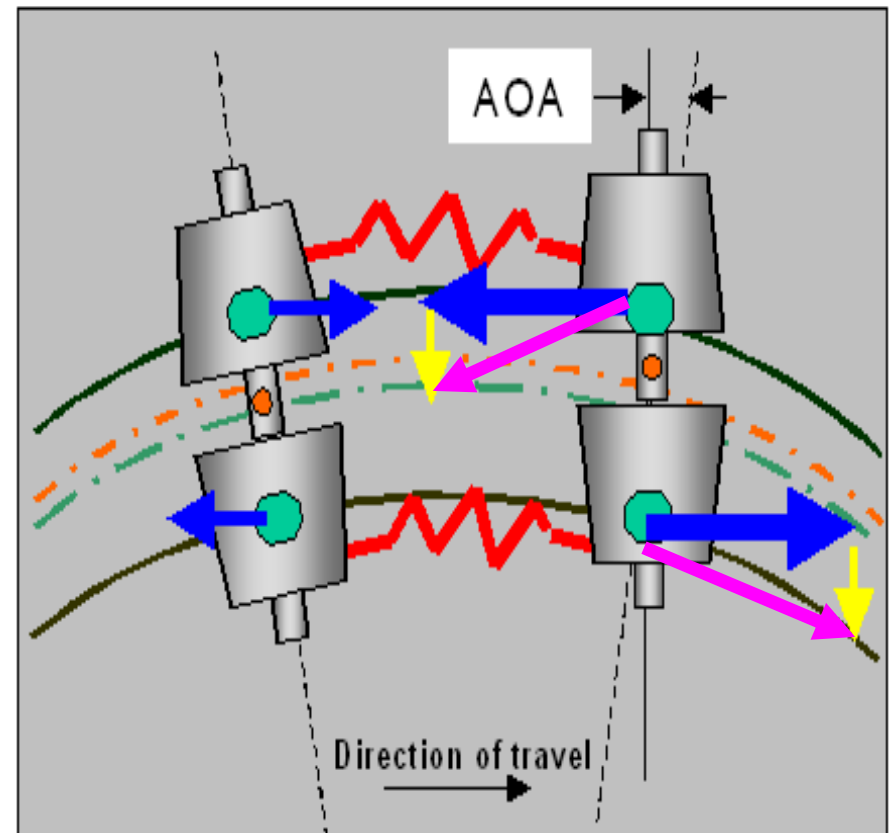


RST Demonstrator Schematic



Mechatronics Bogie - Opportunity

- So if we have none or very little AOA
- We could have a fast reacting but stable bogie
- We could now tell the train to turn left or right i.e. steer the bogie (as well as tilt etc) through the signalling
- Opportunity; have we opened the envelope?
 - Capacity?
 - Speed, curving rules?
 - Track and bogie degradation?
 - New point design?



Rail oriented Wheel/Rail forces

MARKETING MIX-

- Product
- Price
- Place
- Promotion



PRODUCT-

- Passenger Service Product.
- Local trains.



PRICE-

- Fixed pricing.
- Differential pricing.
- Discount pricing.
- Maintenance pricing.



PLACE-

- Service delivery point.
- Place should be customer-friendly.
- Places should be well maintained.

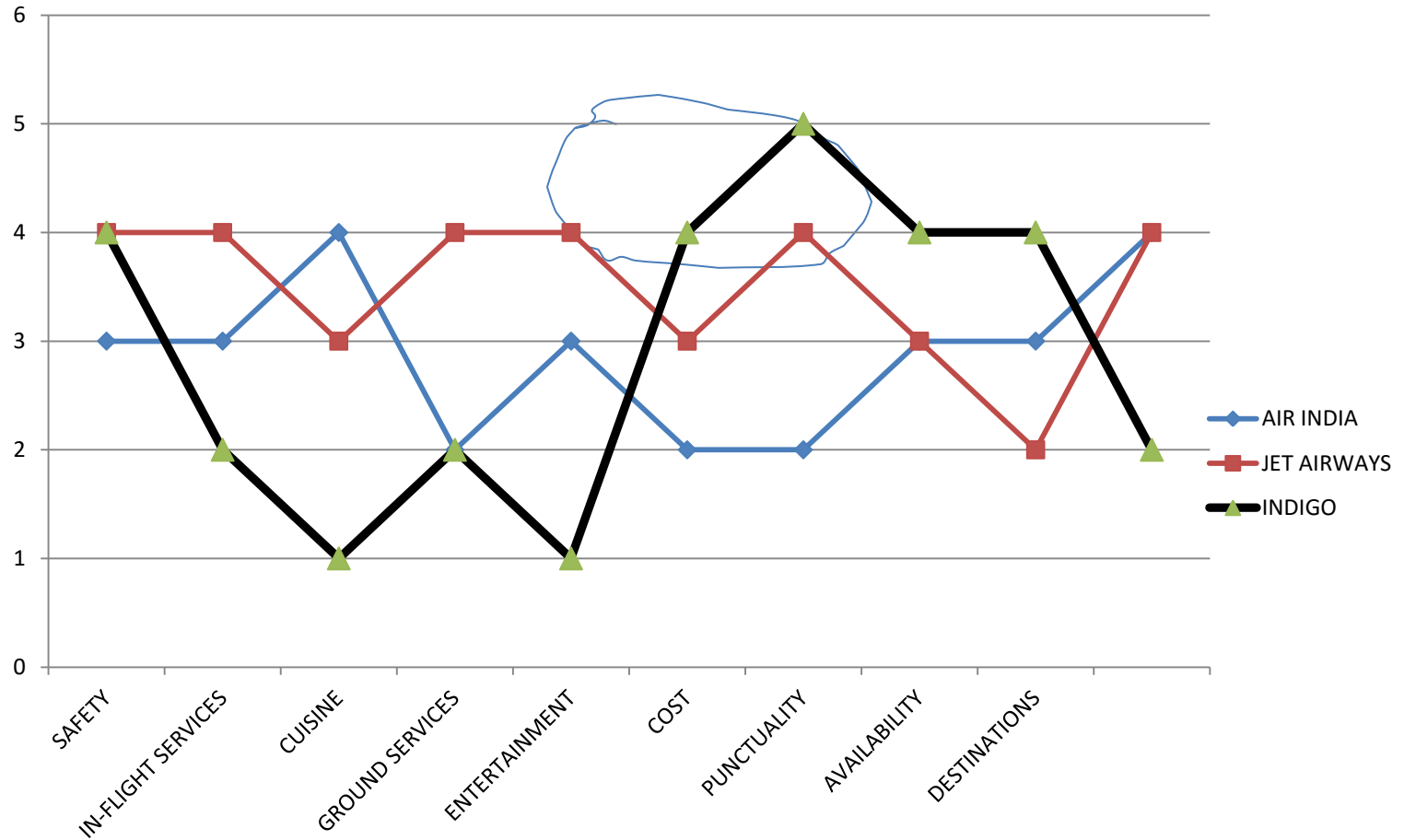


PROMOTION-

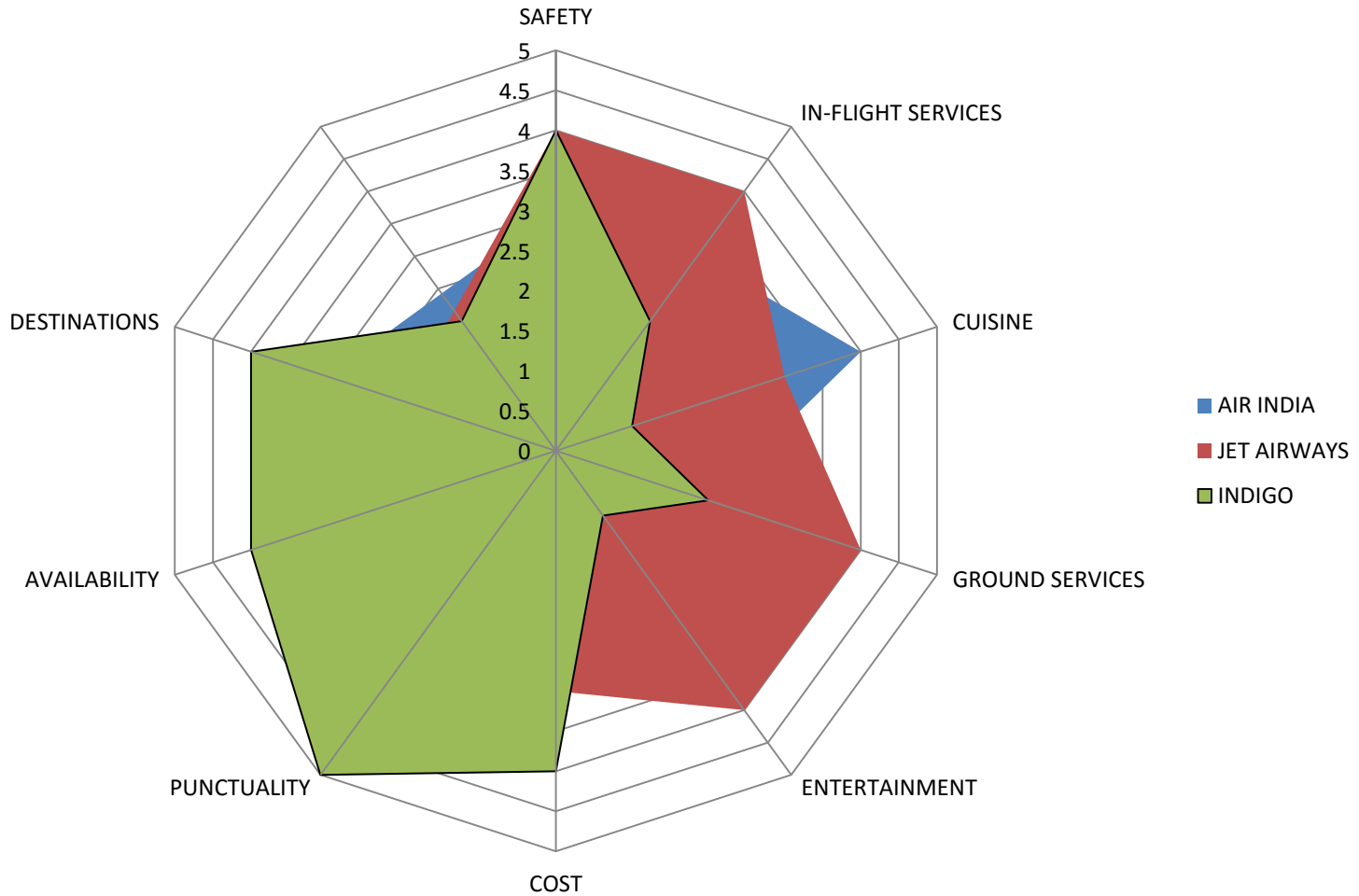
- Mainly newspapers.
- Electronic media.



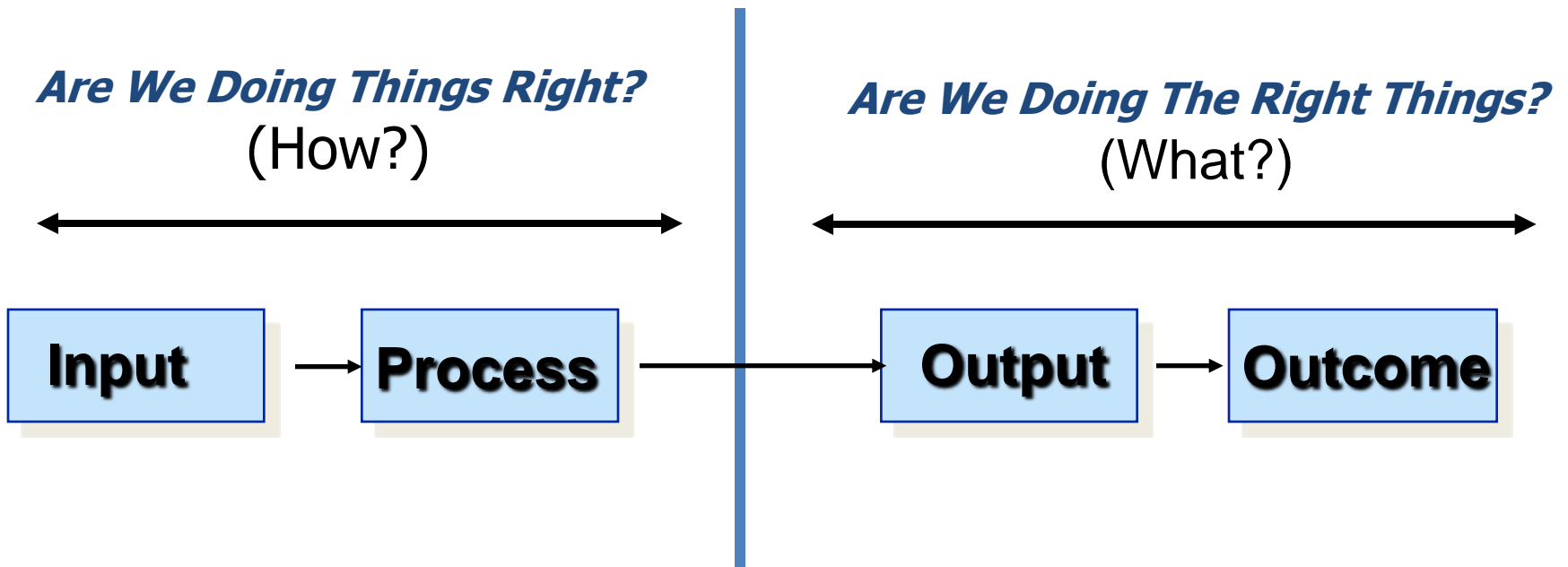
THE VALUE CURVE



THE VALUE RADAR



Performance Measures Should Help Us Decide:



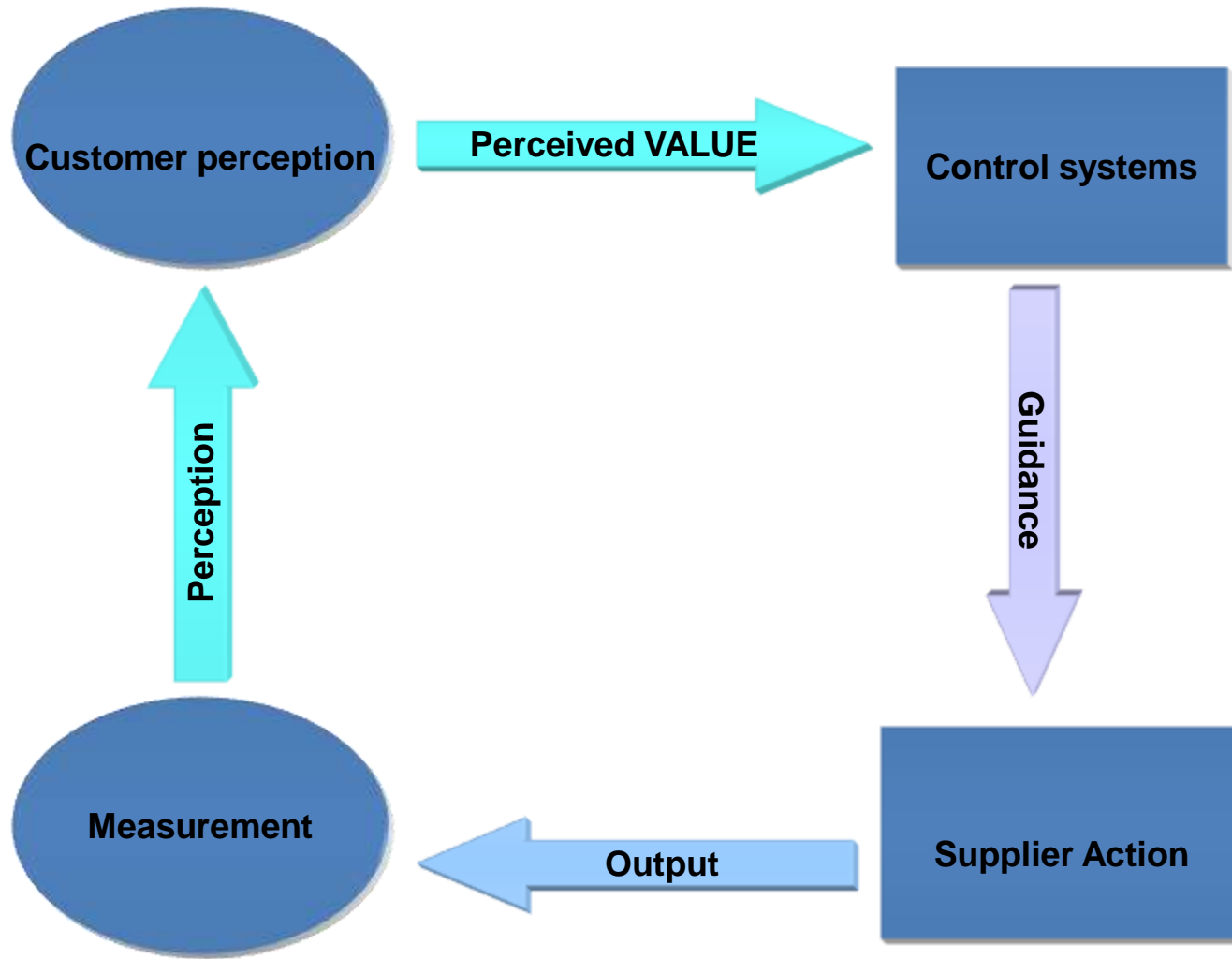
Input: Resources, including budget and workforce

Process: Activities, efforts, workflow

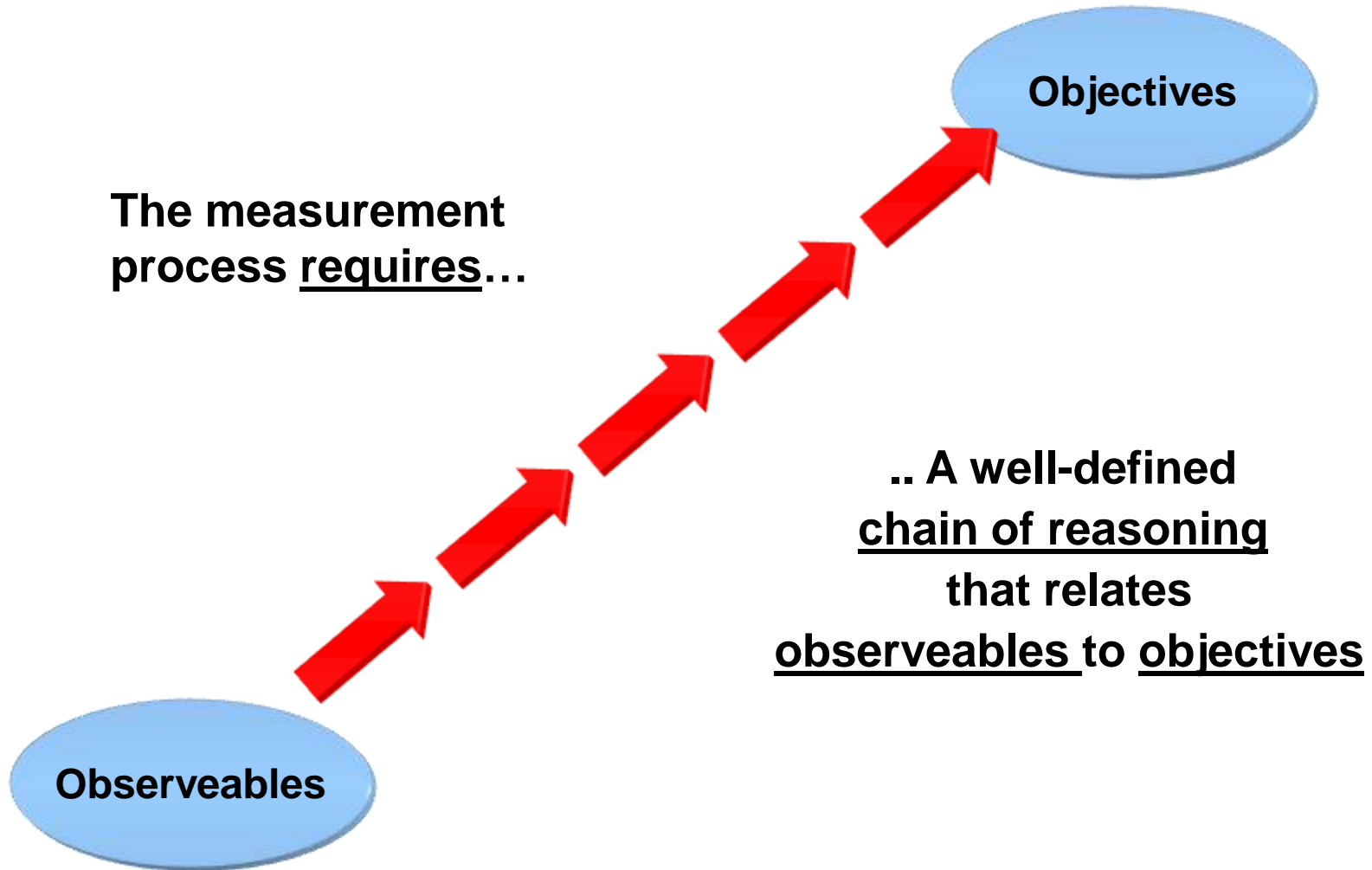
Output: Products and services produced

Outcome: Results, accomplishments, impacts

The Value System



The Measurement Process



Internal Customer Satisfaction

Hierarchy of customer goals

- Critical success factors of customers.
- Establishment of success measures.
- **Hierarchy of customer needs.**

Internal Customer Satisfaction Feedback and Communication

- Informal to Formal.
- Measurement.
- Openness in communication
- Feedback is trigger for improvement initiation.
- Foundation for change initiatives
- Driver for organizational change

Internal Customer Satisfaction Formalization

Tools to bridge the gap

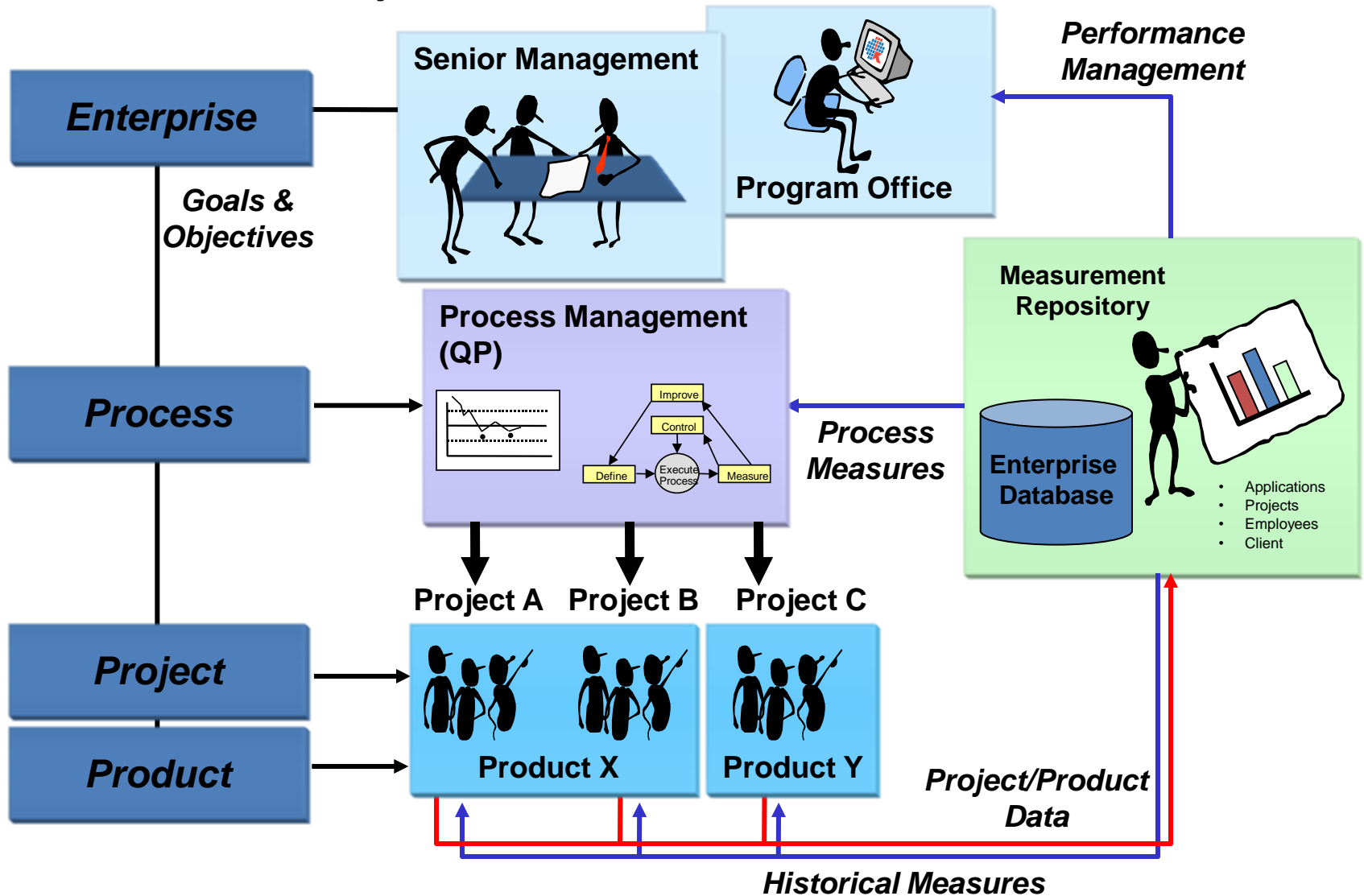
1. Develop service level agreements (SLA) inter and intra department.
2. Identify the latent needs for better understanding of the gap and means to bridge it. A questionnaire and a survey will be conducted to assess the same.
3. Quantification of customer feedback and a formal mechanism is established to give and receive feedback.

Internal Customer Satisfaction Measure to Improve

"What you measure, you improve"

- The basic purpose of any measurement system is to provide feedback, relative to your goals, that increases your chances of achieving these goals efficiently and effectively
 - You don't know what you don't know
 - You can't do what you don't know
 - You don't know until you measure
 - You don't measure what you don't value
 - You don't value what you don't measure

Layers of Measurement















MyIndiaPictures.com



MyIndiaPictures.com









BAMBOO BIKES FROM GHANA











पिशाब करना मना है
गंदगी बिल्कुल नहीं।
C C TV Camera
लगा हुआ है।



MUNGERI LAL KE HASSEN SAPNE

A major mobile company is
planning to launch
Rajnikanth 'R' series in 2012

Features:

- *20 sim cards
- *1 year battery backup
- *1 TB memory
- *1000 mega pixles cam
- *TV
- *Oven
- *Washing Machine
- *Fridge
- *AC
- *Mini Rocket Launcher
- *Mini AK-47



and d new special feature 24G which is far better dan
3G. In this u can meet d person & talk directly....!!



Dick Fosbury invented the “Fosbury Flop”, a radical new way for going over the bar backward. It revolutionised the sport of high jumping and won him the **gold medal** on the 1968 Mexico City Olympics.

**Innovators often
turn things around**

The Jaipur Foot

- Bio-medical engineers have long studied the workings of the body and designed artificial limbs, some of which incorporate microprocessors.
- It is estimated that 500 people per day are killed or lose a limb as a result of land mines
- However, these civilians do not have the money or access to the high-tech devices
- The Jaipur Foot is the solution and it is made of simple materials – rubber, wood and aluminum - which are not only readily available but also can be worked by local craftsmen. Typically it takes 45 minutes to build, lasts five years and costs about \$30.

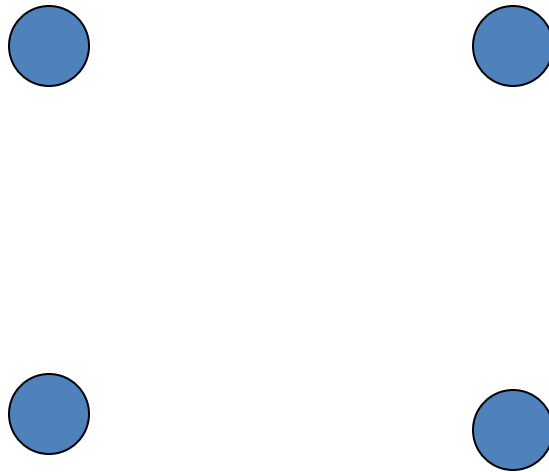


**IS THE
INNOVATION
FEASIBLE**

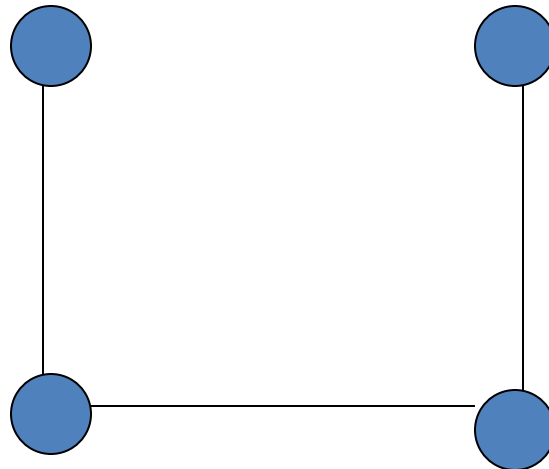
**IS IT
DESIRABLE**

**IS IT
PROFITABLE**

- Make an efficient connection: Length of path connecting all points to be minimum

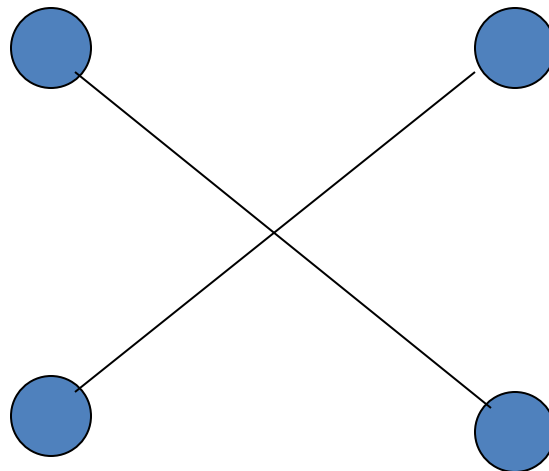


Make an efficient connection: Length of path connecting all points to be minimum

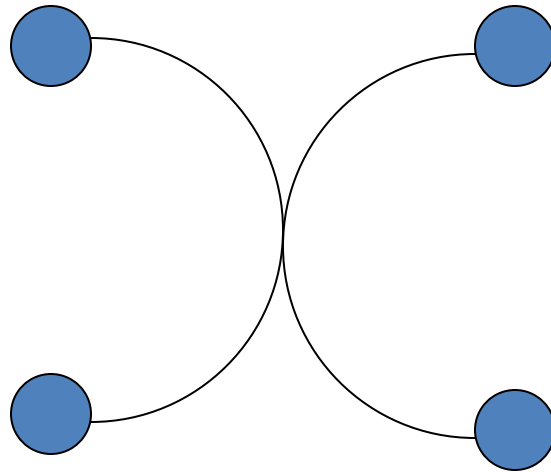


length = 3

Make an efficient connection: Length of path connecting all points to be minimum



length = 2.83



length = 3.14

The Railway Industry actively works to further reduce energy consumption...

Technology related – partly introduced on today's deliveries	<ul style="list-style-type: none">•Reduce running resistance, dominated by aerodynamic drag•Reduce weight•Reduce energy loss•Reduce energy consumption of onboard equipment•Use energy regeneration
Technology related and other factor	<ul style="list-style-type: none">•Improve space utilisation in terms of seats per length of train•Efficient driving
Operational Strategies	<ul style="list-style-type: none">•Reduce top speed•Run the train with a less number of stops•Increase the load factor (passenger-km / offered seat-km)

MECHATRONIC SWITCH & CROSSING

- To develop a radically different concept of switch and crossing design
- Potentially moving away from the traditional moving switch blade to new concept of train direction changing that does not rely on conicity
- The proposed work plan will involve to interlinked plans.
 - Consider the output from Innotrack and the Forever Open railway project which will identify and validate candidate design options
 - The first stream will seek to develop and validate specific aspects or parts of the candidate designs. This work will be done by trialling the new concepts in the existing S & C systems. This will have the double benefit of bringing forward individual improvements to improve the existing switch and crossing system performance in addition to validating each part of the new design.
 - The second work stream develop the most promising radical new switch and crossing designs, using mechatronic actuators? and then taken forward to a structured work plan of testing and development of the final new concepts.
 - The new designs will be validated and ‘approved’ within the project

Allahabad

लखनऊ



A STUDY OF CLEANLINESS AT A CATEGORY –A1 STATION: COSTS,OUTCOME AND ISSUES

STATION: ALLAHABAD,NCR

YAKOOB SHEKHA,IRAS 2010

ALLAHABAD DIVISION : A HISTORICAL PERSPECTIVE

- It was during the period of Lord Canning, the then Viceroy and Governor General of India, that the East Indian Railway was successful in running the first train from Allahabad to Kanpur on 3.3.1859
- Allahabad Division forms the spinal cord of Indian Railways connecting the coal - steel belt of the Eastern region to the consuming areas.

STATION PROFILE

Route Main Line	757.12 Km
Branch Line	296.49 Km
Track Route Length	1053.61 Km
Total Track KM	1944.39 Km
Traffic carried per annum	
Charted capacity each way (with maintenance blocks)	60 paths fully utilized
Capacity utilisation (as% age of charted capacity)	130% to 150%
Average No of Mail / Exp. / Pass. trains per day	310 Nos.
Average No. of Goods trainsInterchange Per day	240.6 Nos.
No. of stations	133 Nos. A1- 2 A- 6 B-3 D- 22 E- 79 F- 21
Average No. of Passengers booked per day	2.49 lacs
TOTAL STAFF	29212
TOTAL OFFICERS	177

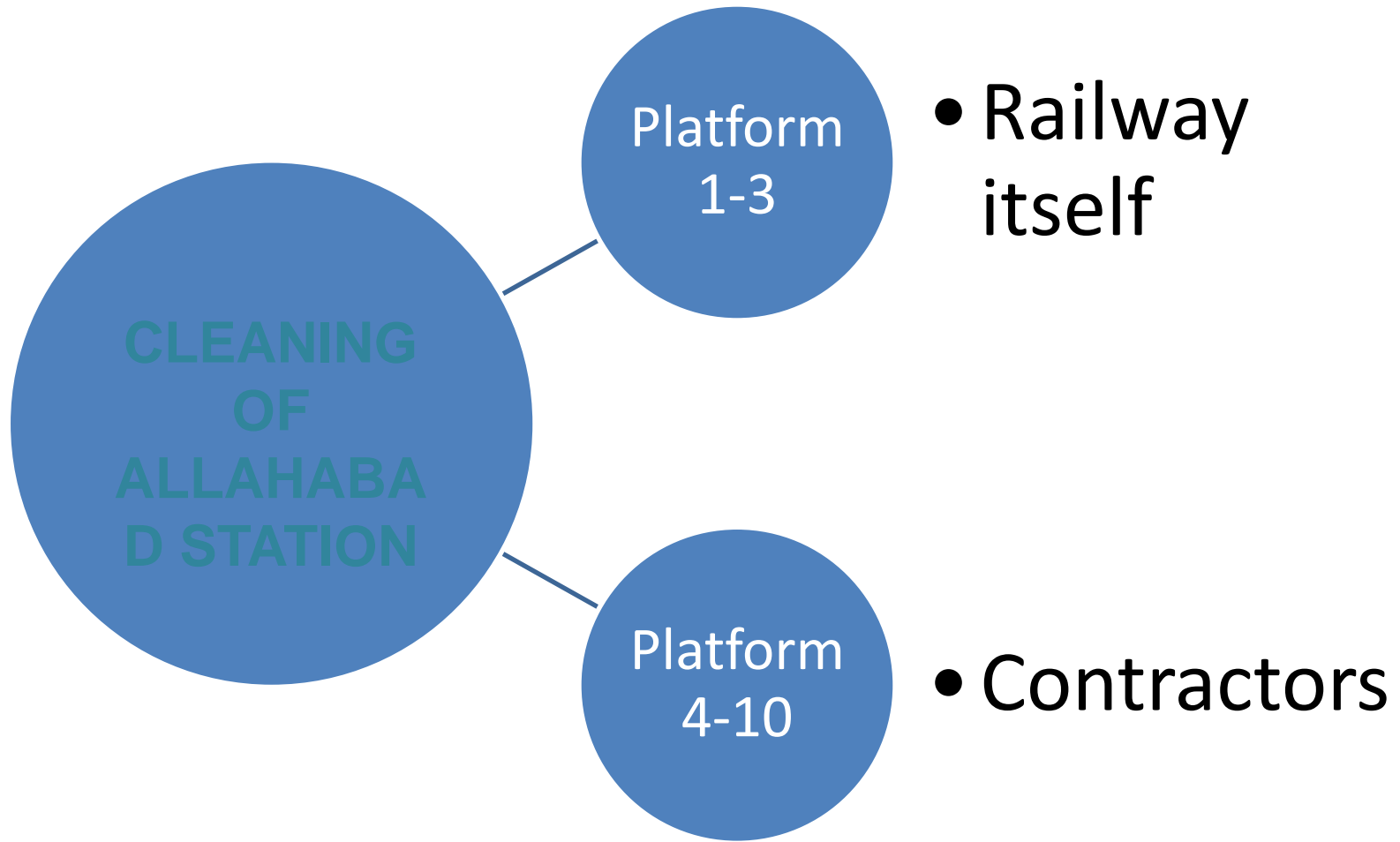
STATION PROFILE

No of platforms	Working platforms	Under Maintenance	Washable aprons
10	9	1	9

TOTAL NUMBER OF PASSENGERS AND TOTAL EARNINGS

S No	Category	No Of passengers	Earnings
1	PRS	101084	28528540
2	UTS	872398	74232354
3	Platform Tickets	12000	60000
TOTAL		985482	102820894

DEPARTMENTS INVOLVED IN CLEANING AND SANITATION AT ALLAHABAD STATION



DETAILS OF RAILWAY EMPLOYEES INVOLVED IN CLEANING PLATFORMS 1 to3

Sanctioned Strength	On Roll
190	132

Employees Shift wise		
1 st Shift	2 nd shift	3 rd shift
87	38	8

Total salary paid in the month of April to the 132 employees on roll : **2824520**

Total Annual salary: $2824520 * 12 = \mathbf{3,38,94240}$

Annual expenditure on machines beared by the Railways

S No	Equipment	Nos required	Unit Cost	Total Cost
1	Scrubber cum Drier	4	1.5 lakhs	6 lakhs
2	Jet cleaning machine	4	80000	3.2laks
3	Battery operated ride on sweeper machine	1	4.5 lakhs	4.5 lakhs
4	Vaccum cleaner	1	1lakh	1 lakh
				14.7 lakhs

****Monthly expenditure on chemicals and consumables: Rs 200000**

Contract Expenditure for maintaining the platforms 4-10

DETAILS OF EQUIPMENTS USED

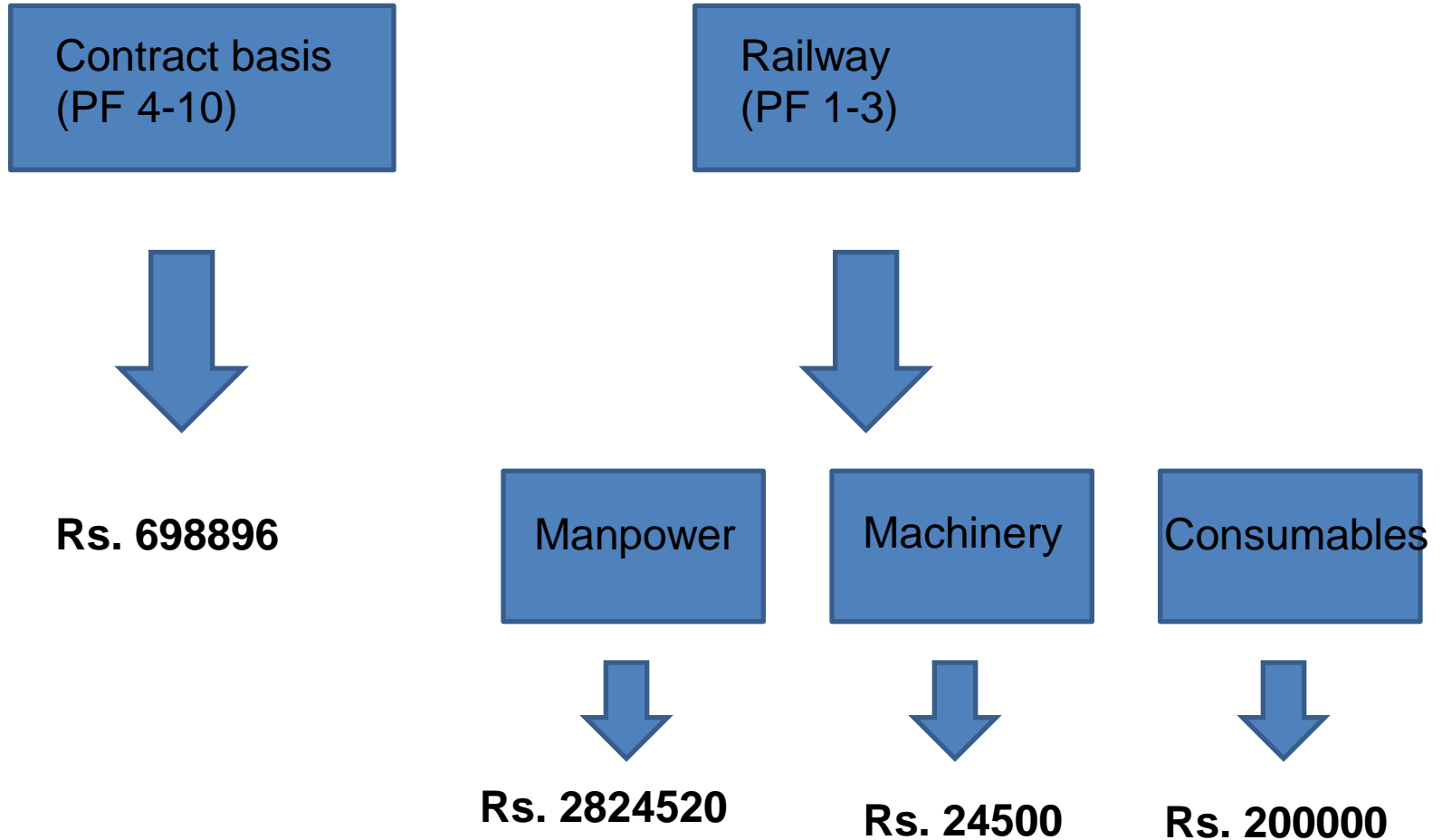
No of labourers: 67

Amount Paid annually: Rs 8388752

MONTHLY EXPENDITURE FOR CLEANING ON ACCOUNT OF CONTRACT: Rs 698896

S No	Equipment	Nos required
1	Industrial wet and dry vaccum cleaner	2
2	Heavy duty scrubber cum drier	3
3	Battery operated ride on scrubbing machine	1
4	Truck for garbage disposal	1

Cost comparison/month



Issues and Outcomes

- The materials consumable which are being used here at Allahabad station are brought from Kanpur as these are stock items and may not be purchased from outside or from local market it is costing much time and amount to railway
- Big issue relating to water supply water is not supplied properly some time the cleaning is not done or delayed because of interrupted water supply
- The drainage at station are maintained by engineering department they are not cleaned properly & are choked it reduce the water flow and creates big problem in rainy season it may be given to these people only they may maintain it well
- Lack of personnel is big issue, administration is trying to reduce the number of employee while for doing these odd job it requires more people.
- Railways had neither developed any standards as benchmarks for various cleanliness activities nor a cohesive plan detailing milestone and roadmap of achieving it.

Cont.

- High incidence of absenteeism among safaiwalas
- Inadequate mechanism to monitor the work of contractor
- lack of assessment of quantum of garbage generated.etc
- most of the people involved in the cleanliness work are not trained & not even using the boot globes and mask ,being untrained reduce their efficiency for handling there jobs
- Drainage system is faulty. Sewer line is very old having brick barrel. It chokes frequently and bricks fall during cleaning. Surface drains are also old and damaged having flow in two portions, due existence of crossovers at the centre of tracks.

Suggestions

- People who are involved in cleanliness must be given some training they must be made aware of their health issues it will improve their efficiency and will help them to take care of their health
- There is lack of combination of work while same type of works are divided in two three departments
- People are putting the liability on others it must be handled carefully
- Work programme must be made in composite form .
- Cleaning is NOT only departmental duty. It is duty of the people also who use it we should have some passenger awareness programme also to make the station and platform clean it should be a dual responsibility.
- Local purchase may be done where the workshop are far it may be good in financial & time management system

CONCLUSION

Cleanliness is most important area which must be given due attention. Cleanliness and sanitation on Indian Railways were not receiving due importance and was secondary activity to other activities in the past. The expenditure done on the cleaning part was also inadequate. Standards of performance were not laid down and Involvement of multiple department was also a great issue of fixing responsibility. But, in the last few years, the railways have taken a number of initiatives to address the issues of cleanliness seriously, such as Clean Train Station, Pay and Use Toilets etc .

What is needed at this hour is effective supervision .initiative need to be cohesive, systematic and sustainable.

CLEANLINESS AT (CATEGORY “A1” STATION) COSTS , OUTCOME & ISSUES VISA KHAPATNAM STATION (VSKP)



AJAY KUMAR JAIN
IRAS-2010 Batch



As rightly said by, His Excellency, The Honorable President of India, Shri. Pranab Mukherjee, there are only two departments that bind the entire nation together

The Indian Postal System and
The Indian Railways

And again Indian Railways plays a very pivotal role in weaving the entire nation together and there by assimilating together various cultures, races, nationals and thus withstanding the concept of “Unity in Diversity” for which our country has been reputed and respected since ages.



STATION DETAILS

Total no of platforms - 8

P.F surface type :- There are different types of surfaces on the platforms details of which are tabulated in following slides.

The surface also includes PRS & booking hall, all classes waiting rooms, retiring room, porticos, VIP Room and such other areas.

The various equipments to be used are as prescribed in the contract along with the list of floor cleaners.



Flooring Type, Area and Covering

Platform No	Flooring Type	Area (L*B) in Sq Mtrs	Covering
1	Kota Stone	7440	6489
2	Mosaic	4602	3724
3	Mosaic	4602	3724
4	Mosaic	6899	4365
5	Mosaic	6899	4365
6	Concrete	5275	2893
7	Concrete	5275	2893
8	Granite	9553	6032
	Total Area	50545	34485

Washable Aprons

Platform No	Area in Sq Mtrs	Year of Const	Approximate cost
1	595	2008	1.11
2	421	1992	0.45
3	444	2000	0.58
4	583	2003	0.96
5	589	2006	1.02
6	nil		
7	579	2010	1.18
8	653	2010	1.42
Total	3864		

AGENCIES INVOLVED

All cleaning work and related staff is under Health & Mechanical department. Both railway department and contractor are involved in cleaning at Visakhapatnam Station .

The station cleanliness is supervised by the Health Department in coordination with other related departments.

The total estimated cost of the project was Rs 4,77,28,387/- for a period of two years i.e. 2011-12 to 2012-13.

The contractor has bid it at -16% of the estimated value and the contract was finally awarded for a total value of 4,00,91,845 to M/s GS&IS (Pvt) Ltd, Kolkata for a period of two years.

The contract has been given to M/s General Security & Information Services (Pvt) Ltd, Kolkata for mechanized cleaning and upkeep of Visakhapatnam Railway Station

STATION CLEANLINESS : AREAS OF FOCUS

The areas to be cleaned as per the contract includes

- Circulating area
- Passenger Reservation System
- Booking Hall (Portico)
- All classes of waiting rooms , Retiring room, VIP Room
- Platform number 1 to 8
- Daily rag picking from all tracks, aprons, platforms & yards, bush, weeds removal.
- Garbage collection & disposal
- Pest & Rodent control
- Liberal use of disinfectants
- Cleaning of all water stands and water coolers at station

MANPOWER

The contractor has to deploy the following number of man power for carrying out activities like handle machines, clean open areas, station buildings, washable aprons, platforms, drains, FOB's, Rag Picking, disposal of Garbage, and supervisors

Category	Req No	Total BP+ DA	Total wages per month
Unskilled	181	170.96	928313
Semi Skilled	42	199.12	250891
Skilled	5	231.27	34691
PF @ 10%			121390
ESI @ 4.75%			57660
Total	228		1392945

DETAILS

- Average number of passengers handled in the past three years

2010-11	-	9855000
2011-12	-	10046260
2012-13	-	10278400

Number of Originating and through trains at Visakhapatnam Station

Originating:

Mail & Express Trains	13
Passenger Trains	6

Through Trains

All categories	67
Total no of trains per day	86

STATION EARNINGS - PRS

II)	Visakhapatnam PRS Sale figures:				
Sl. No.	Particulars	Units	Financial Year		
			2010-11	2011-12	2012-13
1	Outward :				
1.1	No. of Passengers	In Lakhs	7.15	8.51	7.70
1.2	Passenger Earnings	In Lakhs	3008.98	3544.61	3367.04
2	Inward :				
2.1	No. of Passengers	In Lakhs	6.79	8.08	7.32
3	Total Outwar and Inward Passengers :		13.94	16.59	15.02

STATION EARNINGS – NON PRS

I)	Visakhapatnam Non-PRS sale figures (including MST sales):				
Sl. No.	Particulars	Units	Financial Year		
			2010-11	2011-12	2012-13
1	Outward :				
1.1	No. of Passengers	In Lakhs	89.85	96.53	96.51
1.2	Passenger Earnings	In Lakhs	4468.48	4869.36	5069.15
2	Inward :				
2.1	No. of Passengers	In Lakhs	85.37	91.71	91.68
3	Total Outwar and Inward Passengers :		175.22	188.24	188.19

RAILWAY EMPLOYEE DETAILS

The entire station cleanliness is awarded on contract basis. From the railway front only two Health Inspectors are employed as against a sanction strength of three.

They fall under the pay band-III with a grade pay of 4600/-

The total cost to railways per annum works out to be

25000*12*2 = 6,00,000

Total for two years = 12,00,000

These HI are associated with overall supervision of station cleanliness and to ensure that it is carried out in accordance to the conditions laid in the contract.

He also ensures that the records pertaining to cleanliness are properly maintained and regularly signed both by the HI and representative of the contractor.

VARIOUS COSTS

Items	Cost Per Month
Wages	1392945
Materials / Consumables	92014
Machinery	18381
Garbage Disposal	29618
Total per month	1532958
10% profit	153296
Total Incl Profit	1686254
Total Per Annum for Ist year	23169120
Add 6% Escalation for IInd year	24559267
Nett Estimate for 2 yrs	47728387

OUTCOME

- The cleanliness in some of the areas like general class waiting rooms, on some platforms where the passenger flow was comparatively less was not found up to mark
- Absence of staff from the point of presence during night hours
- Tracks were left uncleaned and improper rag picking.
- Water taps and the surrounding places were not maintained in proper condition on less passenger flowing platforms.
- Night soil and other disposals not being cleared in time.
- Improper cleaning of the corner circulating areas
- Lack of proper uniform while executing the station cleanliness

FROM THE PASSENGERS

The feedback from the passengers with regards to station cleanliness at Visakhapatnam has been highly satisfactory.

There have been very few complaints from the passenger front

The cleanliness by the contractor was maintained up to the standards prescribed by railway authorities in the contract agreement.

The innovativeness in the cleanliness aspect was found with the introduction of high power scrubbers, better quality disinfectants, attractive dustbins and so on.

ISSUES

As Visakhapatnam is a highly floating station with average of 86 trains moving per day the time available to clean the tracks and surrounding areas is very less.

The increasing number of footfalls it is very difficult to clean the station in full at a single go and thus maintenance of cleanliness becomes tough

Frequent absence of the contractual workers and lack of adequate casual labour at times to carry out the work in continuity.

At both ends of station there is no proper pathway to take away the garbage from dustbins to dumping ground.

Inadequate water supply .

SUGGESTIONS

FROM THE PASSENGERS:

The feedback from the passengers have been found to be satisfactory to a larger extent, despite that a few suggestions have been made as under

- ❖ Proper functioning of water taps and ensure proper cleanliness of such areas.
- ❖ Small gaps on the sides of the tracks to be properly covered to avoid the menace of rats and rodents
- ❖ Use of quality disinfectants to avoid the fleeing of mosquitoes, flies and insecticides.
- ❖ To increase the frequency of cleaning of wash rooms especially in the retiring rooms.
- ❖ Waiting areas/hall should be regularly cleaned.

SUGGESTIONS

FROM THE CONTRACTORS SIDE

- ❖ Easy accessibility for cleaning up of station
- ❖ Periodical meetings with the railway officers associated with the station cleanliness
- ❖ Payment of bills presented by contractor in time to keep them associated for long term
- ❖ Recognition of work executed to serve as a motivational factor
- ❖ Proper coordination between the parties to contract
- ❖ Educating them of the best practices being adopted at other stations

SUGGESTIONS

FROM THE RAILWAY OFFICERS

- ❖ The contract should preferably be awarded for a period of 3 years as it generates long term employment
- ❖ Periodical inspection of machines used under the contract
- ❖ Clause regarding AMC of all the machines used in the cleaning contract
- ❖ Regular inspection of station by officers so as to ensure that we don't deviate from the cleanliness conditions as mentioned in the contract
- ❖ Penalty as applicable to be imposed in case of lapses as per guidelines laid down

CONCLUSION

From the make or buy decision it can be understood that awarding the station cleanliness on contractual basis works out to be cheaper as against its direct execution by the railway authority .

The administration has to ensure the following aspects :

- ❖ Station authorities to ensure that unwanted crowd does not enter the station premises.
- ❖ The clear charter of cleanliness should be displayed at the different areas of station like waiting hall, retiring room, platforms
- ❖ Better day to day monitoring of contract cleaning.
- ❖ Regular inspection by different levels of authorities.
- ❖ Motivating the contractors by providing due recognition to their work, making timely payments to them and coordinating with them to ensure better quality services.

Costing templates

- Cost of supplying bed-rolls in a 2AC coach
- Cost of preparing Electricity Bill for electric energy supplied to an outsider by railways.
- Cost of preparing Electricity Bill for one residential quarter
- Cost of Inspection of one coach at the pit-line
- Per hour cost of time spent by the crew after signing-on

- Cost of attachment/detachment of a coach
- Cost of running a departmental road vehicle.
- Cost per kilometer of Railway Vehicles provided at Pahune Hostel/NAIR (June 2013)
- Cost of operation & maintenance of Running Room

- Cost of Cleaning an AC 2 Tier Coach in pit-line

Cost of washing a coach

Cost of dispatch of one letter from Divisional Office

- Cost of providing security at class "A1" station

Cost of preparing salary of ONE staff in the
Division

Cost of installing and maintaining LED based
indicators on one platform

- Cost of attending to a signal failure

Cost of operating & maintaining ONE Retiring Room

Cost of ticket checking on Rajdhani Express
(Originating-Delhi)

Cost of a speed restriction

Cost incurred on an Accident Relief Train (ART) to attend a ?mock trial?.

Cost of Detention of a train (about 05 min.) due to Alarm Chain Pulling (ACP)

Cost incurred on a Self-propelled Accident Relief Train (SPART) to

THANK YOU