

# Course Outline

1	<b><i>Introduction</i></b>	Course Introduction	Trial by Fire, powerpoint on Ops Strat
2	<b><i>Product Dev</i></b>	Dreamcast/Sega	<i>Chap 8 in Clkspd on 3-DCE, ABC's of CPM</i>
3	<b><i>Operations</i></b>	Burger King	Types of Processes, EOQ, Newsvendor
4	<b><i>Strategy</i></b>	Inventory Mgmt	Inven probs, Relevant costs, Whirlwind/Web, Dell/Conqueror, Laptop King
5	<b><i>Process</i></b>	Alaska Airlines	Levitt
6	<b><i>Technology</i></b>	<i>Webvan</i>	They've got mail.
7		Cisco	MRP note, ERP Technology Note
8	<b><i>Process</i></b>	Process Flow Models	Queueing Note & Inventory Buildup
9	<b><i>Analysis</i></b>	National Cranberry	
10		<i>Univ Health Service</i>	
11	<b><i>Process</i></b>	Quality Mgmt	Deming, Juran, Crosby; 6sig, Berwick, Memory Jogger
12	<b><i>Quality</i></b>	Toyota	Lean Production, Karmarkar
13		<i>The Goal</i>	
14		Bank of America	Hammer & Cole Articles
15	<b><i>Supply</i></b>	Hewlett-Packard	SMR paper
16	<b><i>Chain</i></b>	<i>Barilla SPA</i>	
17		Sport Obermeyer	
18	<b><i>Wrap-Up</i></b>	Wrap-up	

## *15.760: Sega Dreamcast/CPM*

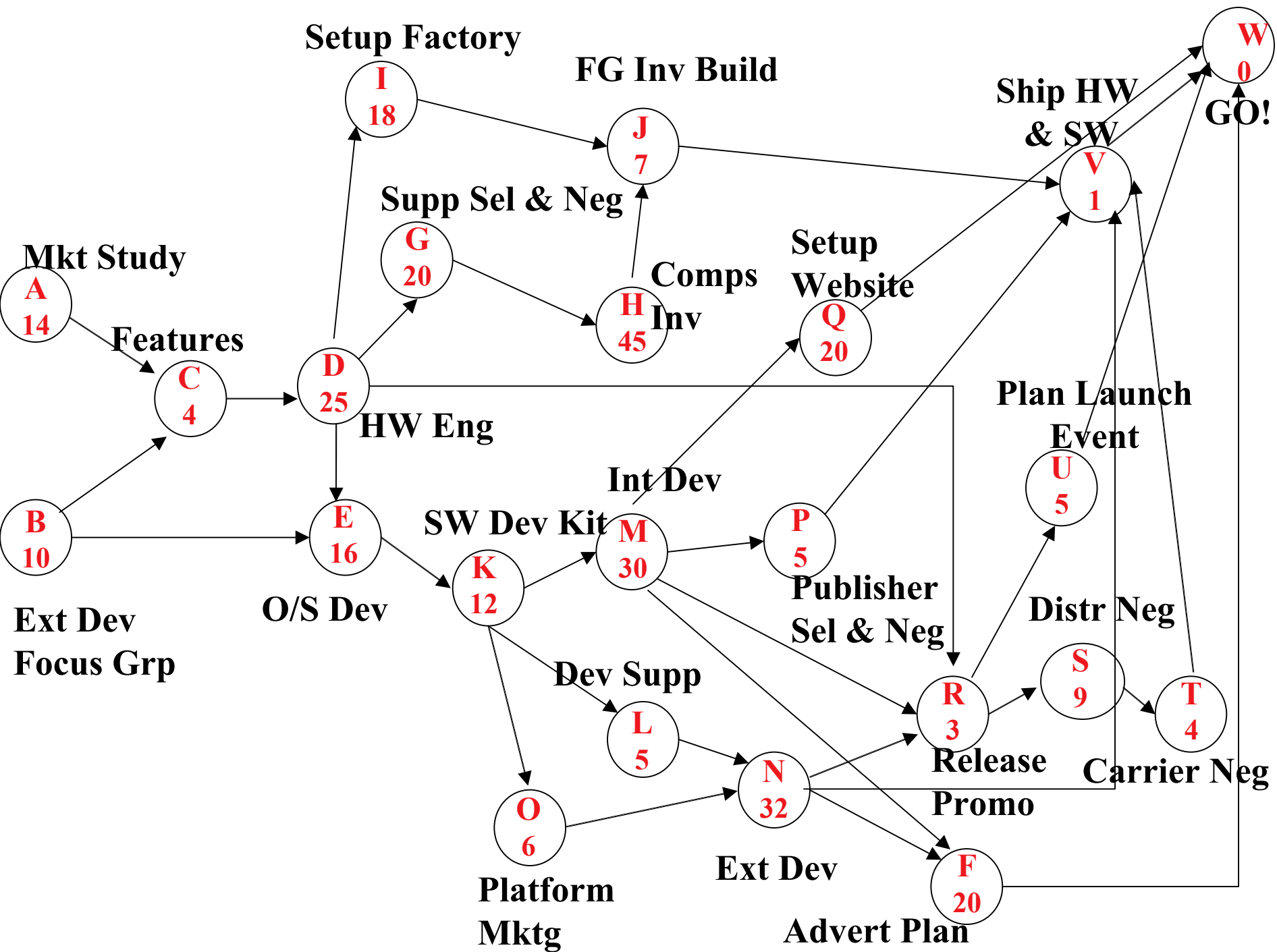
- 1. What are the key elements of the value chain for the home video game business?**
- 2. What are the possible failure modes for Sega and its Dreamcast product?**
- 3. What capabilities does Sega require to succeed?**
- 4. What's the critical path for the CPM exercise?**
- 5. Launch as scheduled or postpone?**
- 6. What happened. Why?**
- 7. Lessons learned.**

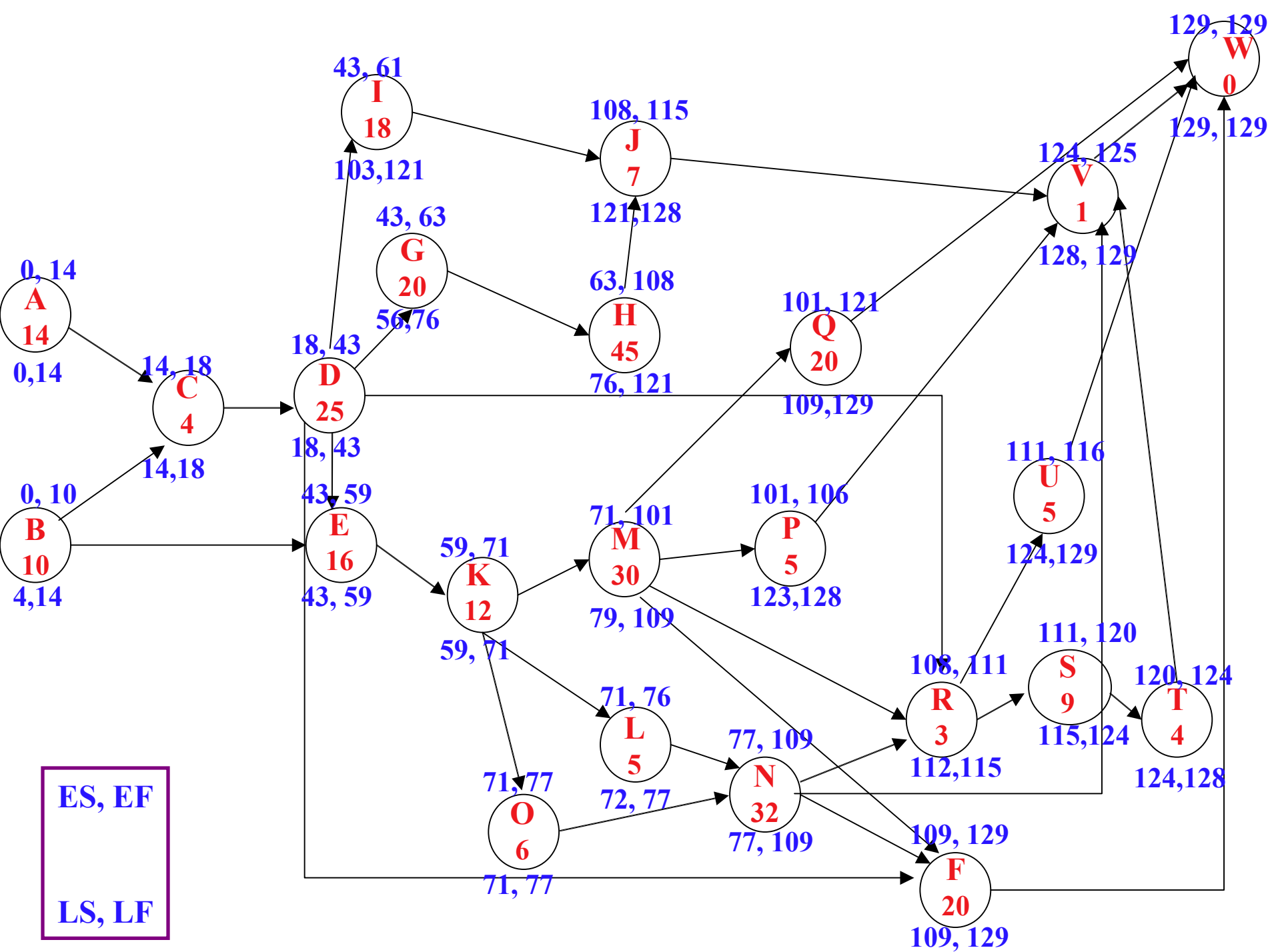
## 15.760: CPM exercise

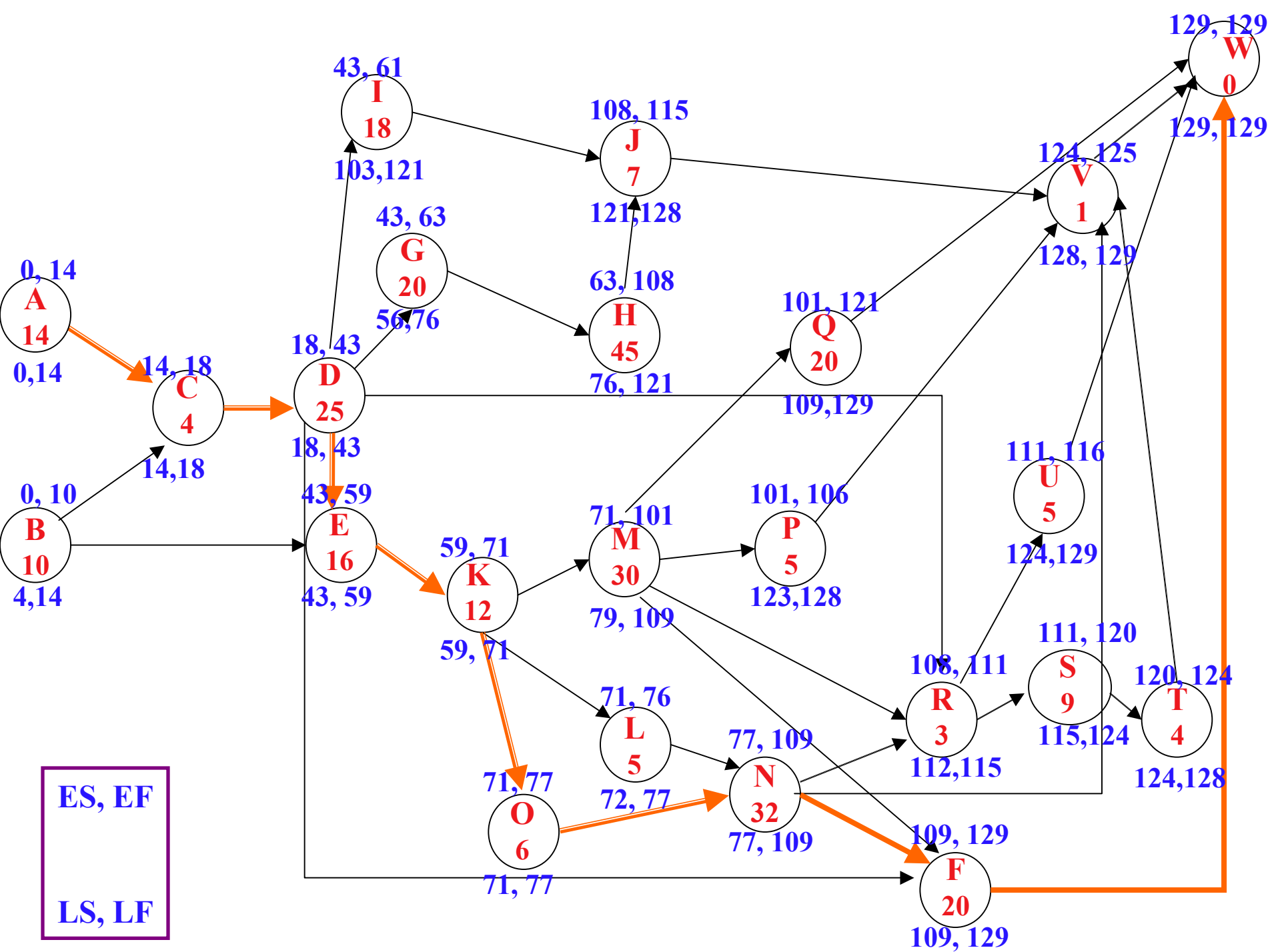
Task	Description	Duration (week)	Precedence
A	Market Study	14	
B	External Developer Focus Group	10	
C	Feature Selection	4	A,B
D	Hardware Engineering	25	C
E	Operating System Devlpt.	16	D,B
F	Advertising Campaign	20	D,M,N
G	Supplier Selection & Negotiation	20	D
H	Component Inventory Buildup	45	G
I	Assembly Facility Setup	18	D
J	Finished Good Inventory Buildup	7	I,H
K	Library & Programmer Toolkit Devlpt.	12	E
L	External Development Support Setup	5	K
M	Internal Game Devlpt.	30	K
N	External Game Devlpt.	32	L,O
O	Platform Promotion	6	K
P	Publisher Selection & Negotiation	5	M
Q	Website Setup	20	M
R	Release Promotion Material Design	3	D,M,N
S	Distribution Channels Devlpt. & Negotiation	9	R
T	Carrier Selection & Negotiation	4	S
U	Launch Event Organization & PR	5	R
V	Hardware & Software Shipment	1	J,T,P,N
W	Launch!	0	V,U,Q,F

## ***15.760: CPM exercise***

- 1. What is the critical path and total duration for this project?**
- 2. Suppose that a marketing study finds that the Advertising Campaign can be shortened to 15 weeks without significant impact reduction. What is the new CP and total project duration?**
- 3. Suppose we would like to reduce the time until launch to 28 months, what would you recommend?**
- 4. Bonus: Suppose that the duration of the development tasks E, M and N are now random variables following exponential distributions with means 16, 30 and 32 respectively.  
What is the probability that the total project duration will be more than 135 weeks?**







# Corporate Decision

# Supplier Performance

# Market Dynamics

# Effects on Relationships

**launch**

**Exhaustively seek a  
production fix**

**delayed  
launch**

NEC recovers

NEC late

NEC recovers

NEC very late

Demand H

Demand L

Demand H

Demand L

Demand H

Demand L

Retailers increase dedicated space  
Software development accelerate  
**Win-Win-Win !!!**

**Product is a dud  
Reinvigorate or Exit.**

Sales puts on the best face possible  
Pressure/help NEC  
Retailers unhappy with empty shelves  
Disgruntled Customers  
Software developers anxious

**Need to stimulate demand & NEC  
Product may be a dud  
Software developers may quit**

Production ramp-up crucial  
Must maintain good communications  
Slow start is overcome: win-win-win

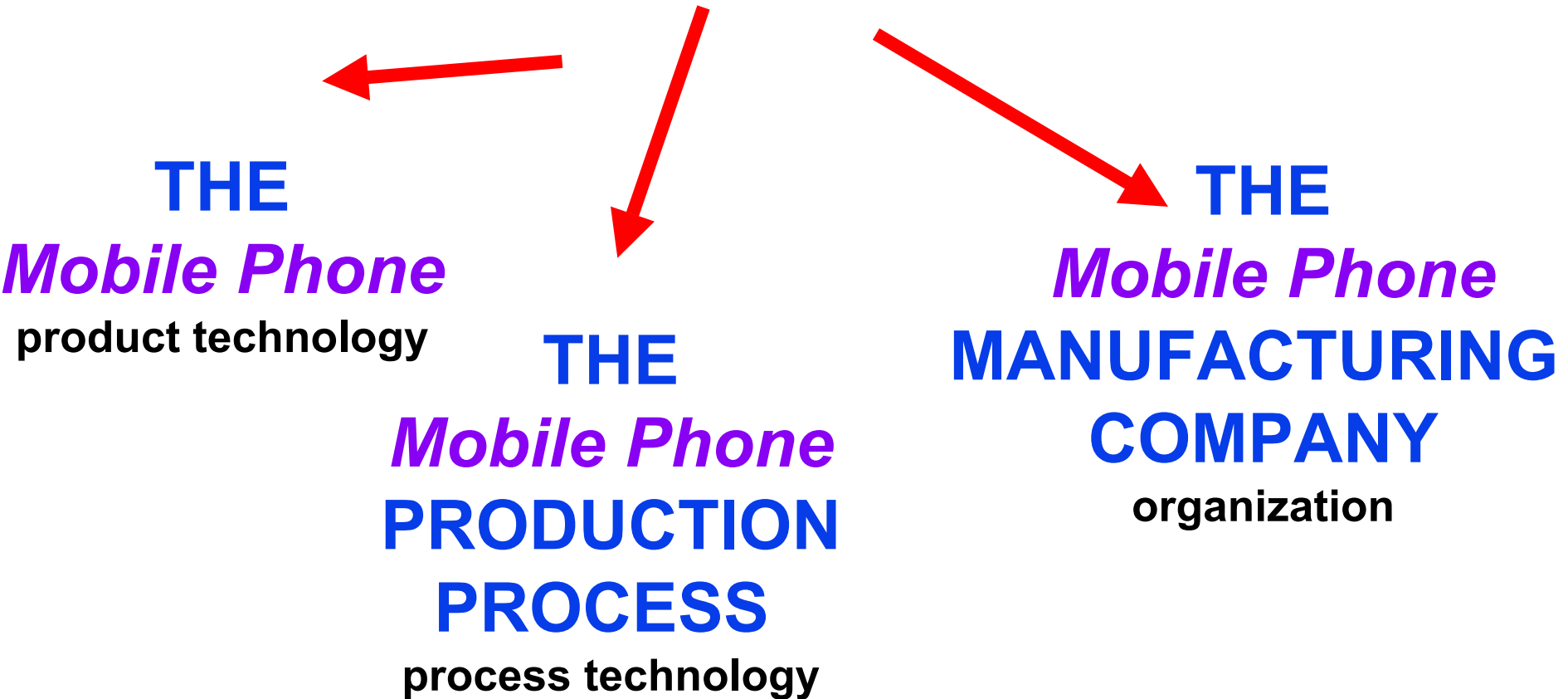
**Recrimination mode  
Was product a dud or was lateness to  
market the killer?**

Deep trouble  
Try to mend relationships and make new plan  
or just exit.



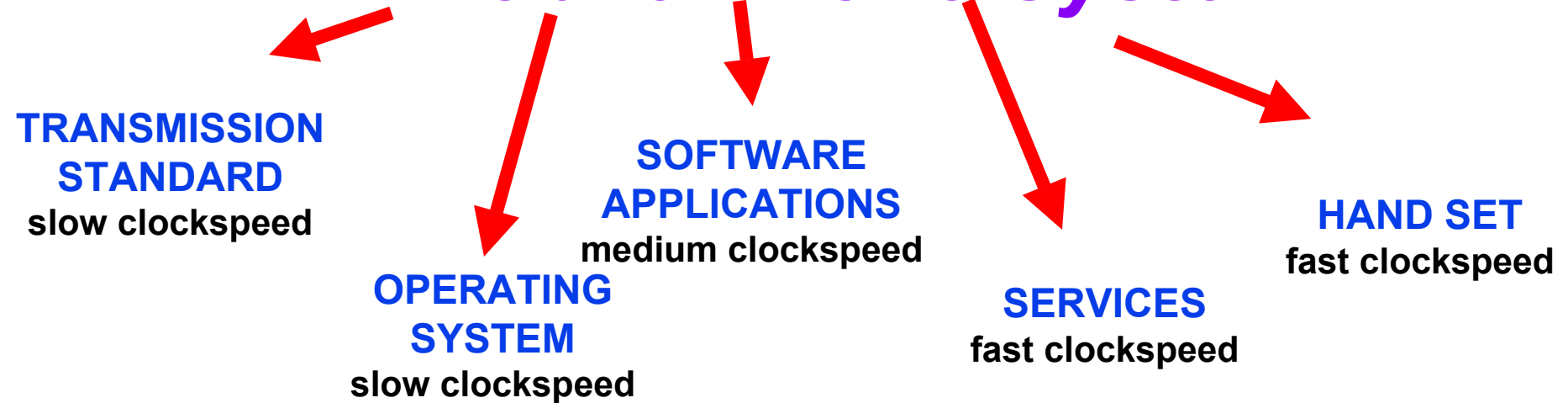
**INDUSTRY CLOCKSPEED IS A COMPOSITE:  
OF PRODUCT, PROCESS, AND ORGANIZATIONAL  
CLOCKSPEEDS**

*Mobile Phone* **INDUSTRY CLOCKSPEED**



*Mobile Phone System* **CLOCKSPEED** is a mix of  
Transmission Standards, Software and Handsets

## *Mobile Phone System*



**ISSUE:** THE FIRMS THAT ARE FORCED  
TO RUN AT THE FASTEST CLOCKSPEED  
ARE THE MOST LIKELY TO STAY AHEAD  
OF THE GAME.

# Product

# Process

# Supply Chain

**Design**  
**Detailed**  
**Perform.**  
**Specs**  
**& Funct.**

**Architect.**  
Modular  
vs.  
Integral

**Unit**  
**Processes**  
**Tech.**  
**& Equip.**

**Mfg.Syst**  
Functnl  
Cellular.

**S.C.**  
**Architect**  
Orgs Set  
& Alloc.  
of Tasks

**Logistics**  
**& Coord**  
**System**  
Auton vs.  
Integrated



- **Focus**
- **Architecture**
- **Technology**

**A 3-D CE decision model**  
**illustrating the *imperative***  
**of concurrency**