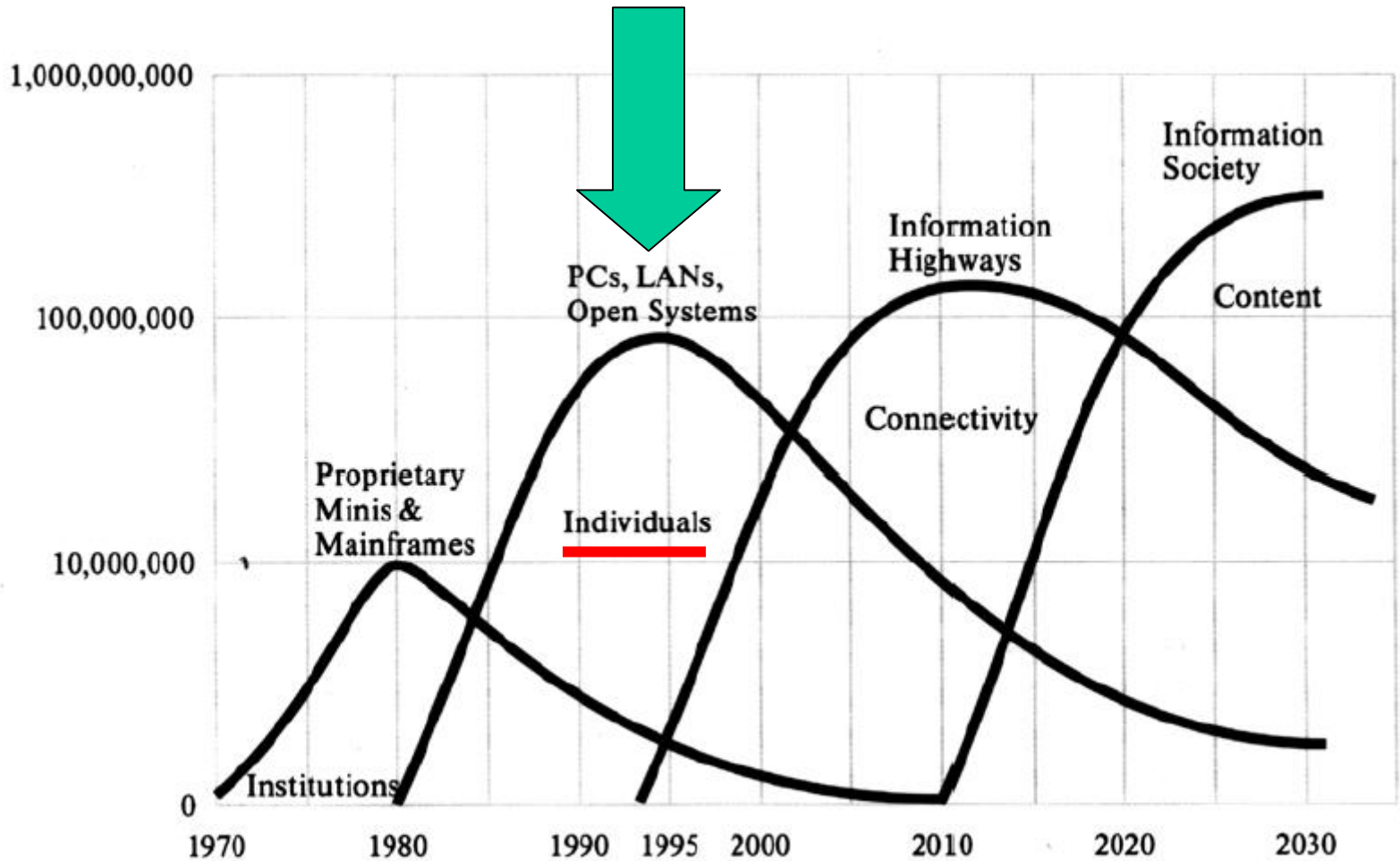


# La seconda Ondata

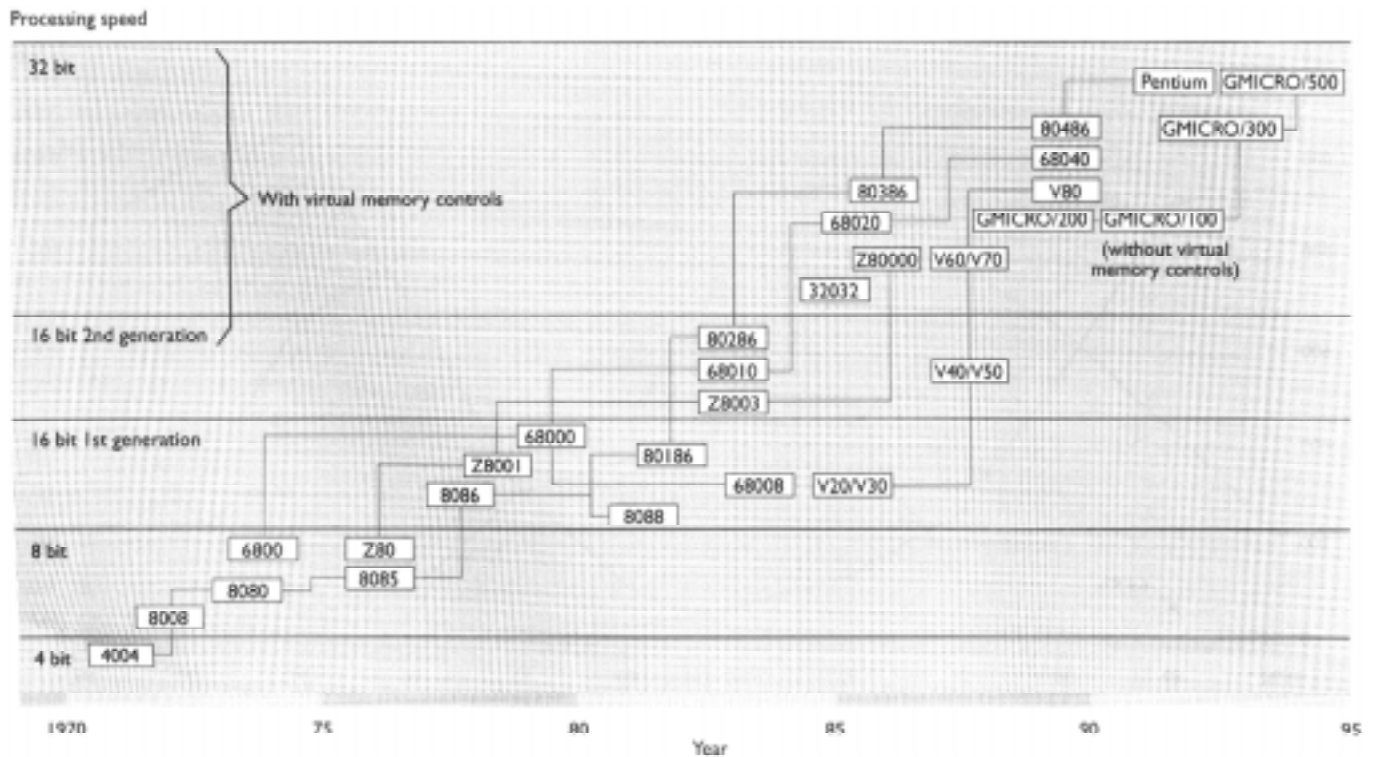


# **LA QUARTA GENERAZIONE (1980)**

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- Large Scale Integration (LSI): il microprocessore
- Intel, Motorola, ....
- I personal computer e le workstations

# GENERAZIONI DI MICROPROCESSORI



Source: Electronic Industries Association, Japan

# **IL PERSONAL COMPUTER**

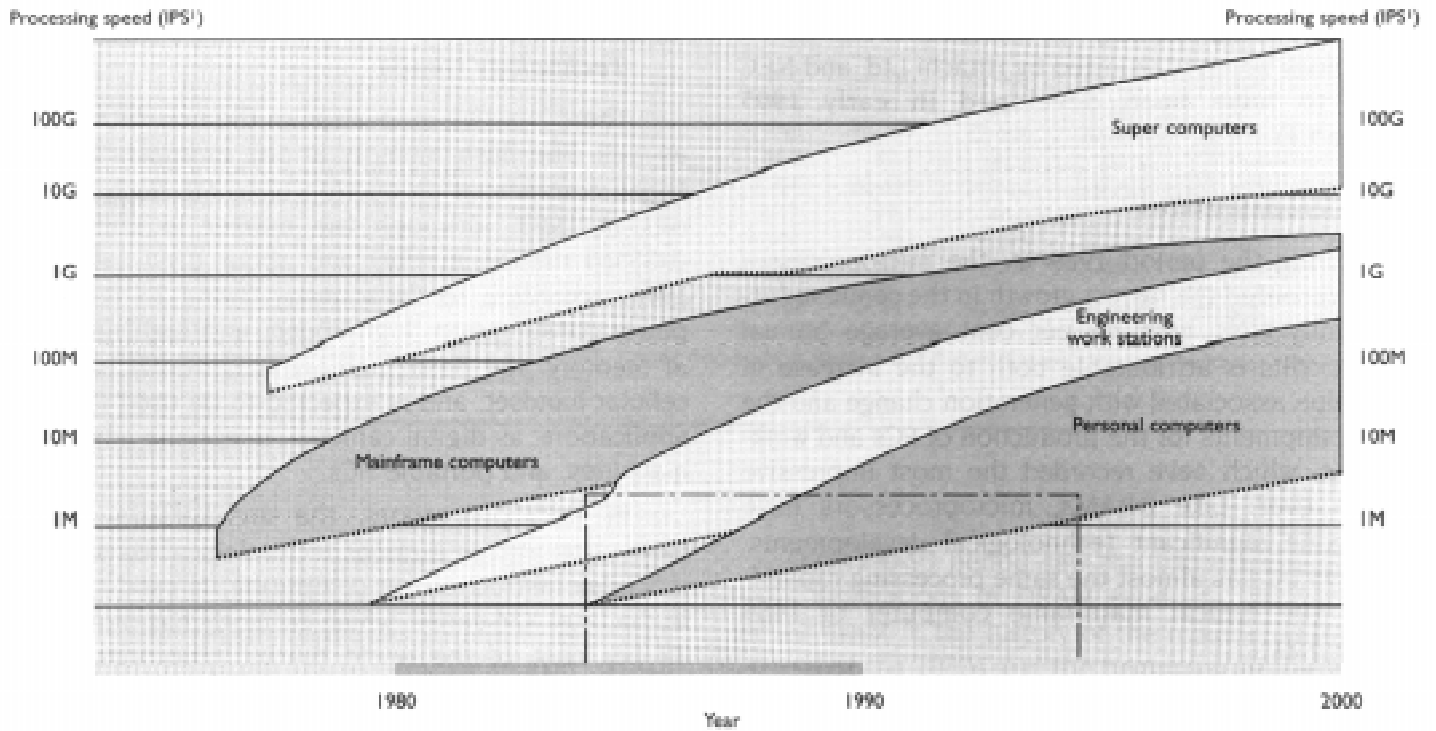
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- Un calcolatore personale
- Il PC IBM (Intel): dal 1981
- Apple Macintosh (Motorola): dal 1984  
“The computer for the rest of us”
- l’end user computing e l’evoluzione dell’interfaccia utente
- il foglio elettronico
- la Microsoft  
 (“un computer su ogni scrivania”)

# L'EVOLUZIONE DEL PERSONAL COMPUTER

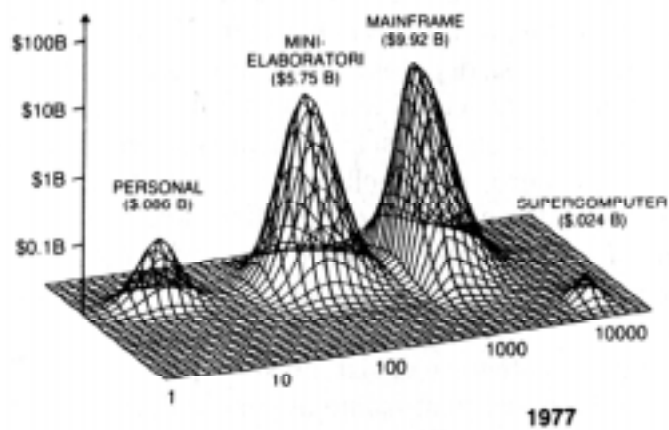
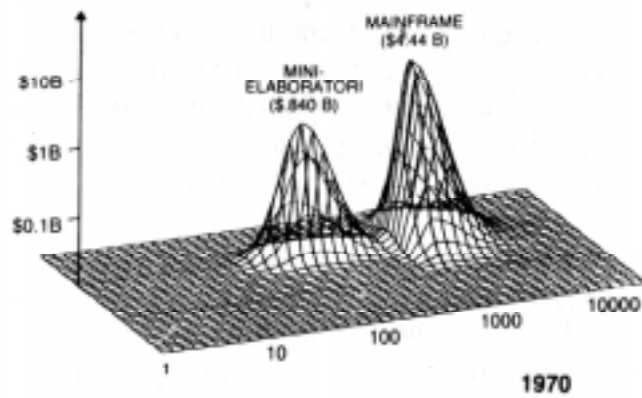
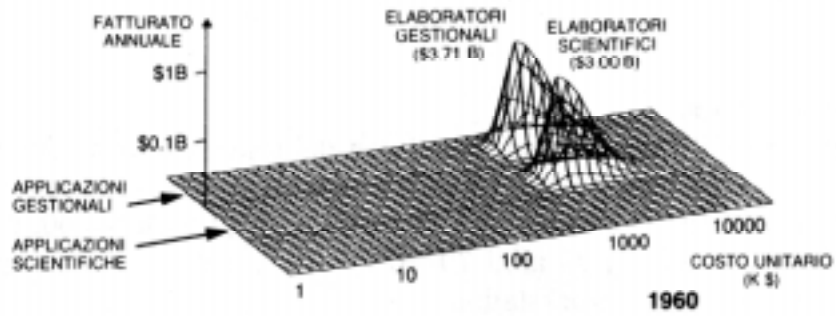
<b>Caratteristica</b>	<b>1981</b>	<b>1991</b>	<b>1996</b>
<b>CPU</b>	8088	80486	Pentium
<b>Frequenza di clock</b>	4.77 MHz	50 MHz	120 MHz
<b>Istruzioni per sec.</b>	0.3 MIPS	40.7 MIPS	
<b>N. transistors</b>	29.000	1.200.000	
<b>Max mem. virtuale</b>	1 MB	4000 MB	16 GB
<b>Max mem. reale</b>	256 KB	64.000 KB	128.000 KB
<b>Display (densità)</b>	320 x 200	1024 x 768	1240 x 1024
<b>Display (colori)</b>	4	256	256
<b>Floppy disc (dim.)</b>	5.25"	3.5"	3.5"
<b>Floppy disc (capac.)</b>	360 KB	1440 KB	2000 KB
<b>Hard disc (capac.)</b>	10 MB	640 MB	1.2 GB

# POTENZA DI CALCOLO



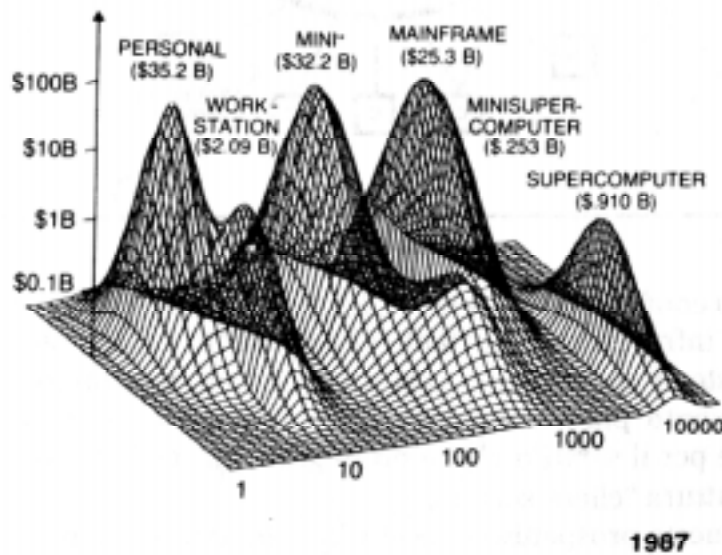
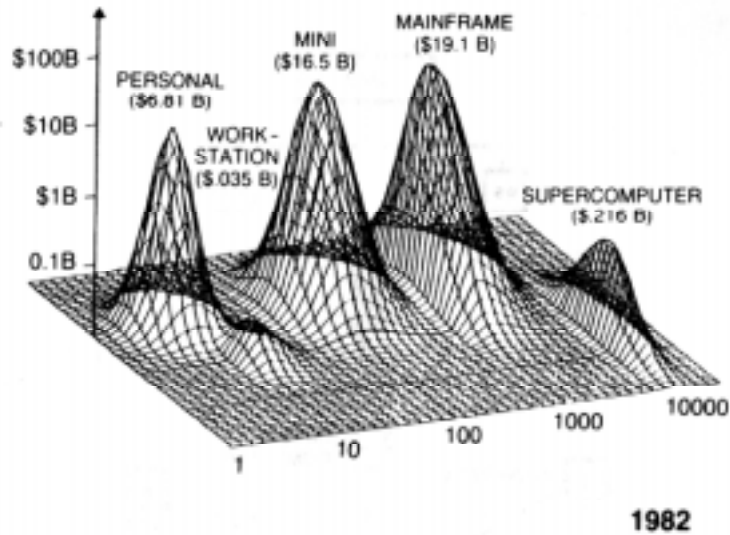
Source: Ministry of International Trade and Industry, Japan

# LA STRATIFICAZIONE DELL'OFFERTA (I)



(Fonte: Dataquest, Gartner Group, citato in Occhini, 1990)

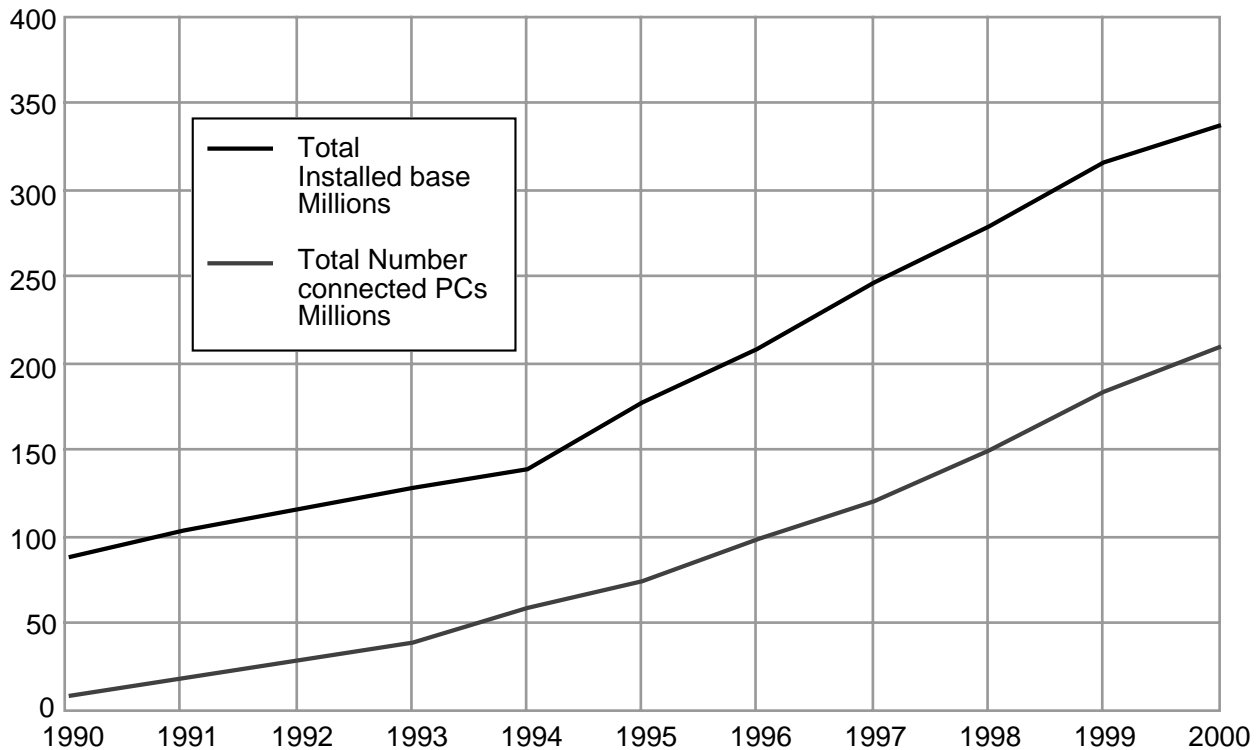
# LA STRATIFICAZIONE DELL'OFFERTA (II)



(Fonte: Dataquest, Gartner Group, citato in Occhini, 1990)



# PERSONAL COMPUTER: BASE INSTALLATA



# PARCO PERSONAL COMPUTER INSTALLATI NEI PRINCIPALI PAESI (1995)

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(N° unità installate)

	<b>PC (in milioni)</b>	<b>PC per 100 addetti</b>
<b>USA</b>	<b>74,0</b>	<b>59,2</b>
<b>GIAPPONE</b>	<b>17,8</b>	<b>27,5</b>
<b>GERMANIA</b>	<b>11,5</b>	<b>33,0</b>
<b>GRAN BRETAGNA</b>	<b>10,5</b>	<b>41,0</b>
<b>FRANCIA</b>	<b>7,8</b>	<b>34,4</b>
<b>ITALIA</b>	<b>4,8</b>	<b>23,8</b>
<b>SPAGNA</b>	<b>2,8</b>	<b>23,8</b>

Fonte: Rapporto ASSINFORM, 1996