

# Emerging operating systems

Prof. William Fornaciari

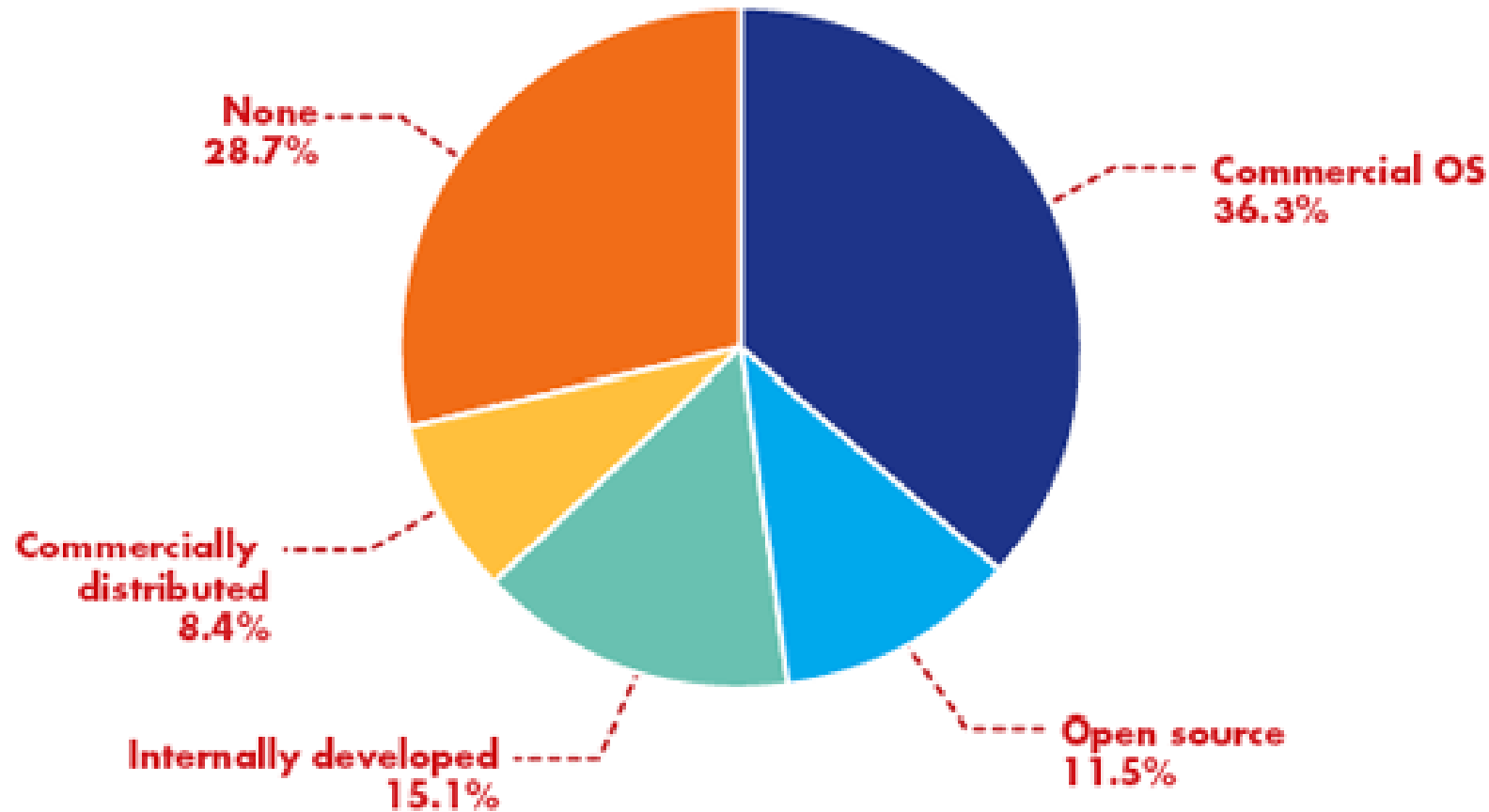
Politecnico di Milano – Dipartimento di Elettronica e  
Informazione

[william.fornaciari@polimi.it](mailto:william.fornaciari@polimi.it)

[www.elet.polimi.it/~fornacia](http://www.elet.polimi.it/~fornacia)

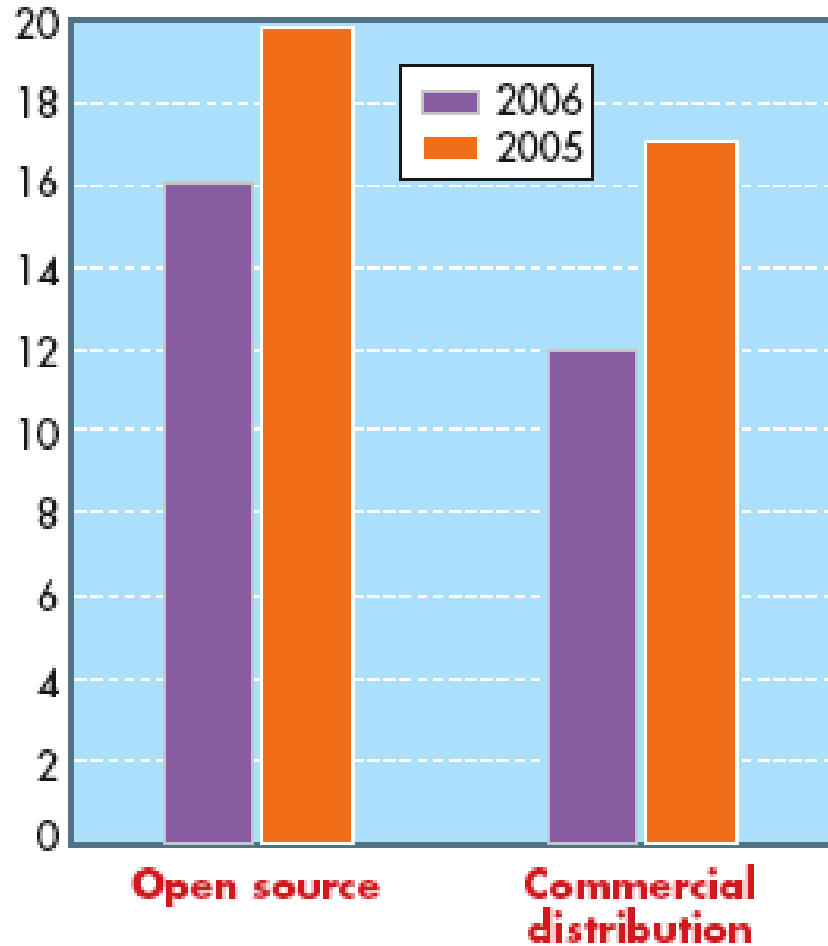
**Milano, June, 2009**

# Slicing the operating system pie (2006)



# Open source waning?

## Open source waning



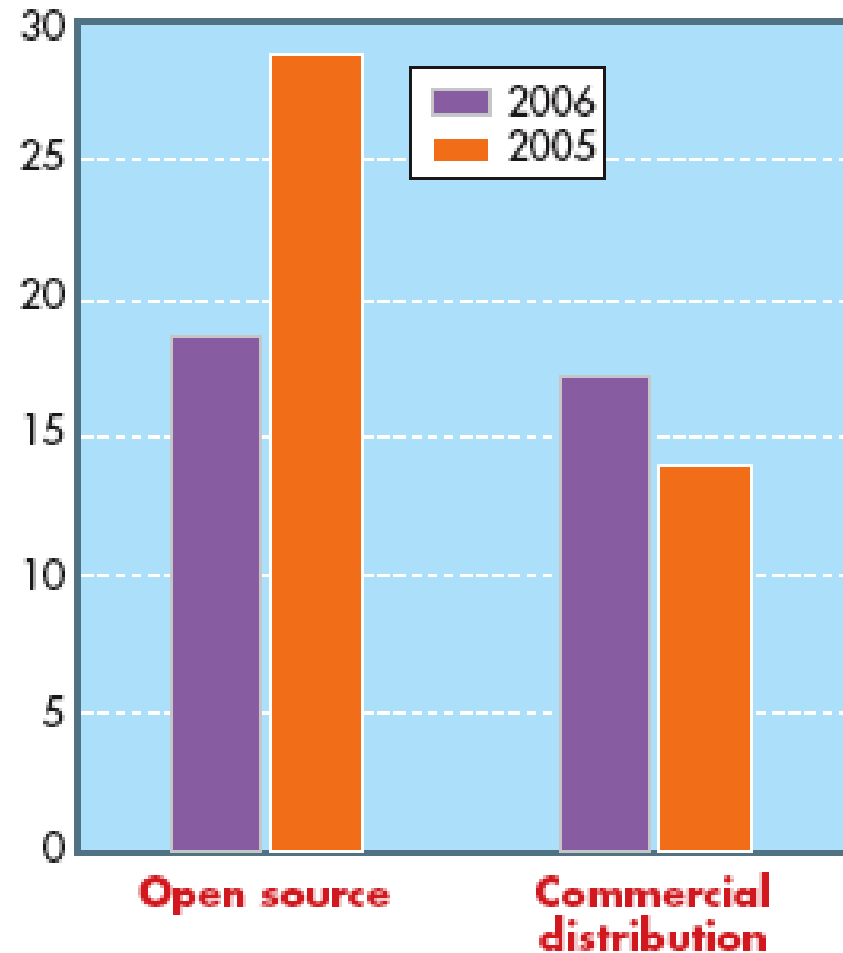
### ➤ Fear of designers

- ✓ Drivers
- ✓ Post-selling support
- ✓ Support of product family evolution over the time

# Plan for the next project (2006)

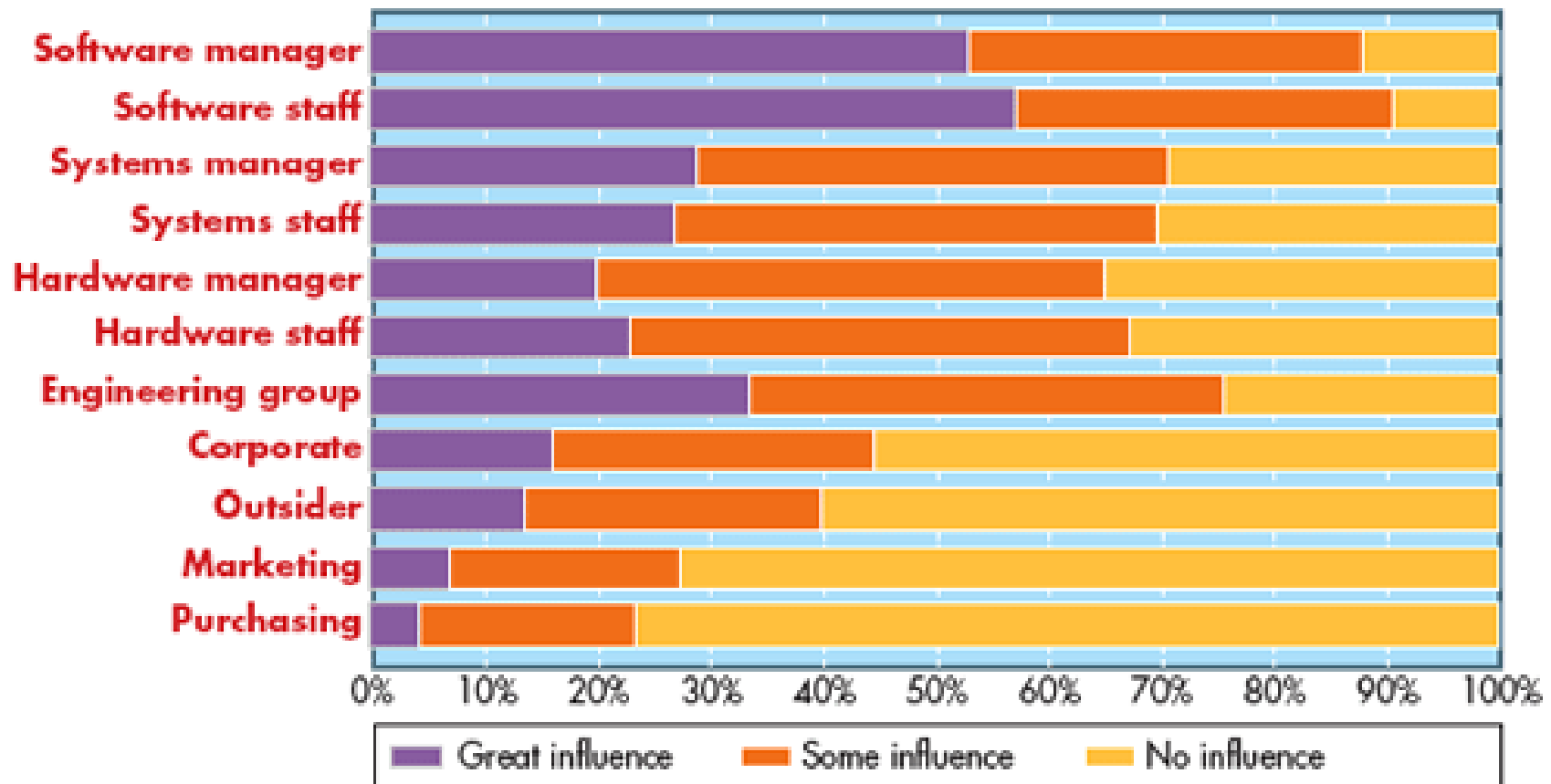
- **Things are expected to change in 2010+**
  - ✓ **More stress on license cost (same of bare hardware ?!)**
  - ✓ **Maturity of Open Source software for next gen. of A/V applications**
  - ✓ **Viability of open source distributions thanks to big companies**

## Linux disillusionment



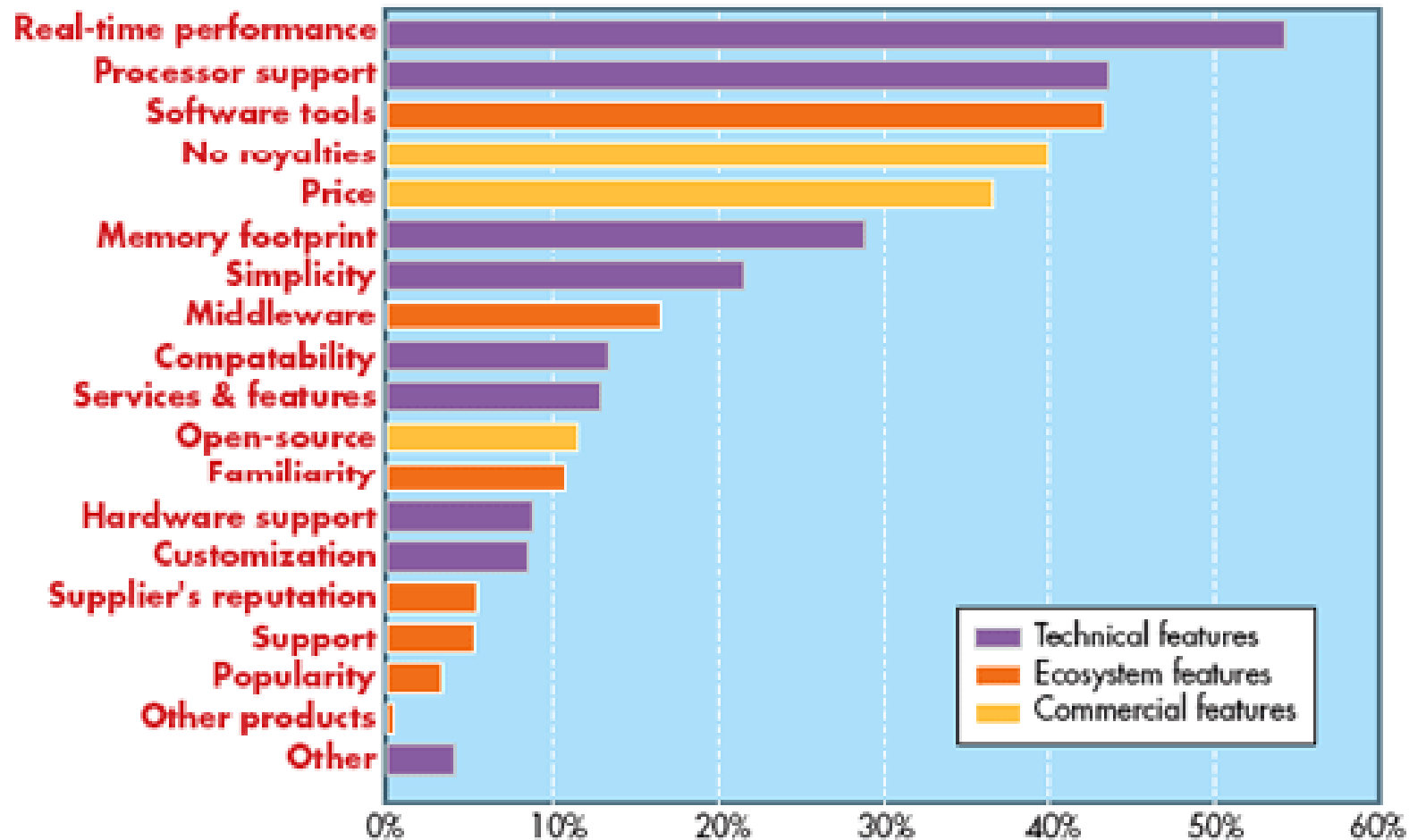
# Decision making

## Who influences the choice of operating system?

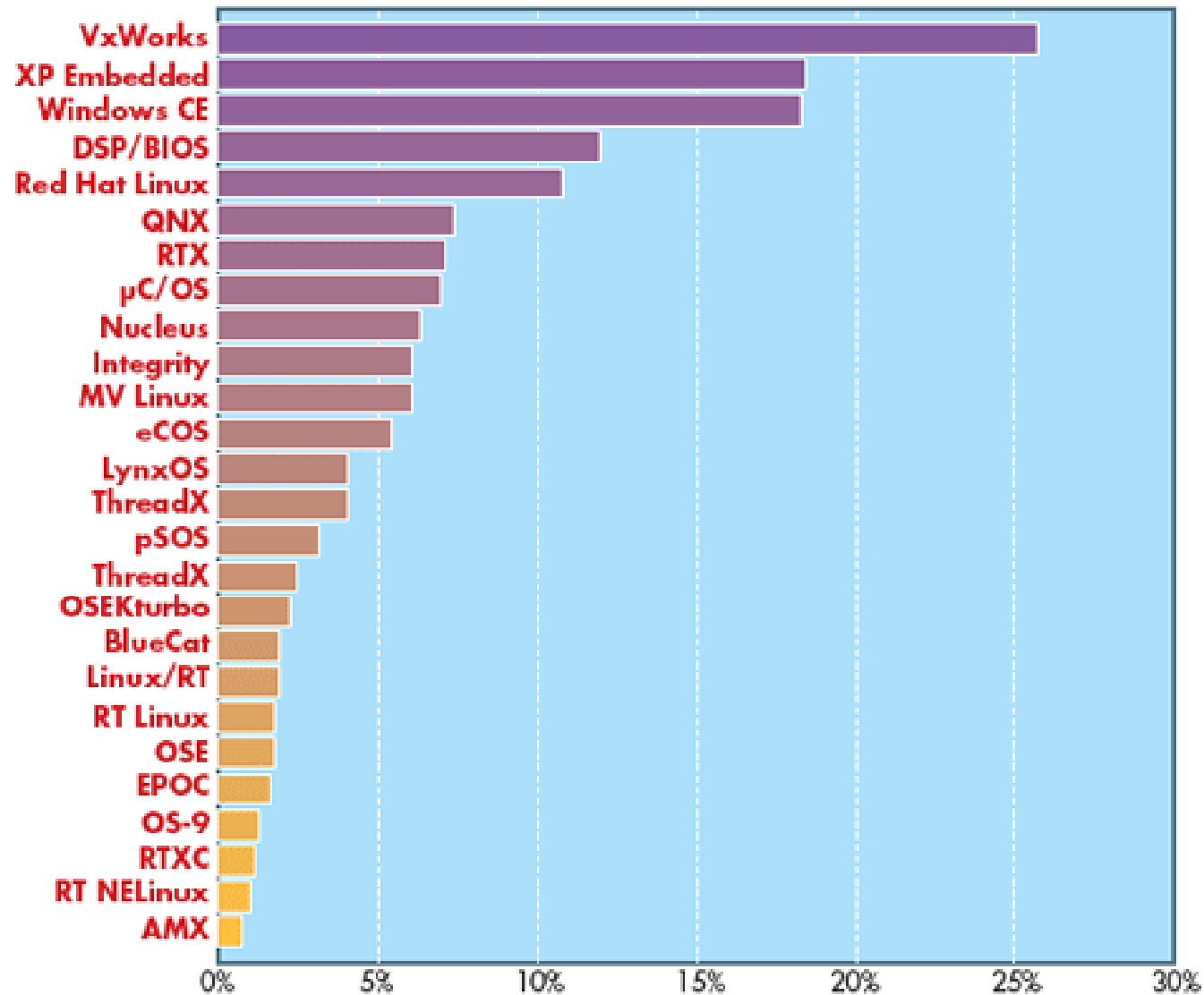


# Guidelines to take aware decisions

## Operating systems evaluation criteria



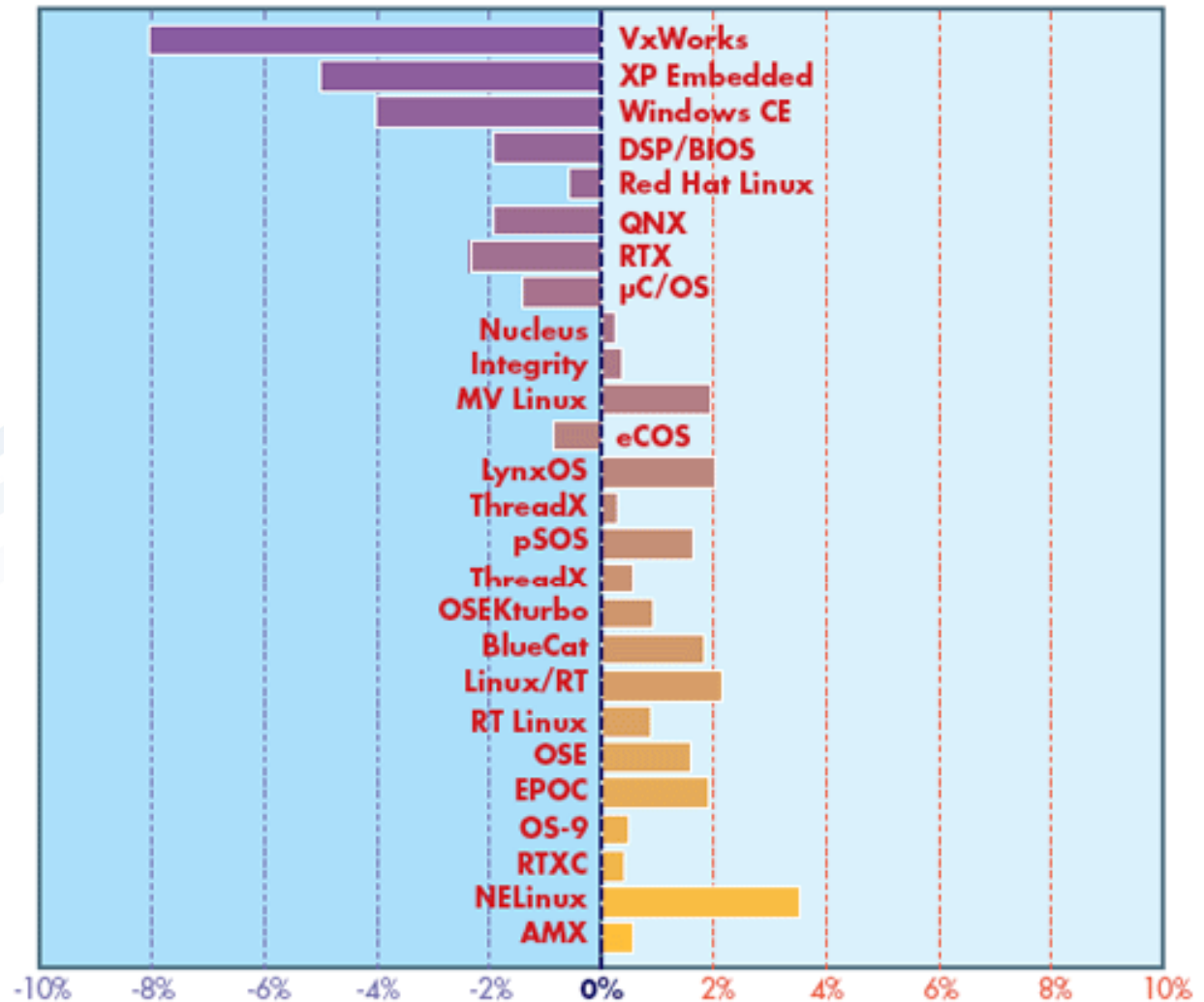
# RTOS is multi-multi vendor market arena



# Plan for the future projects (2006)

- OS vendors try to provide their own board or work tightly with hardware suppliers

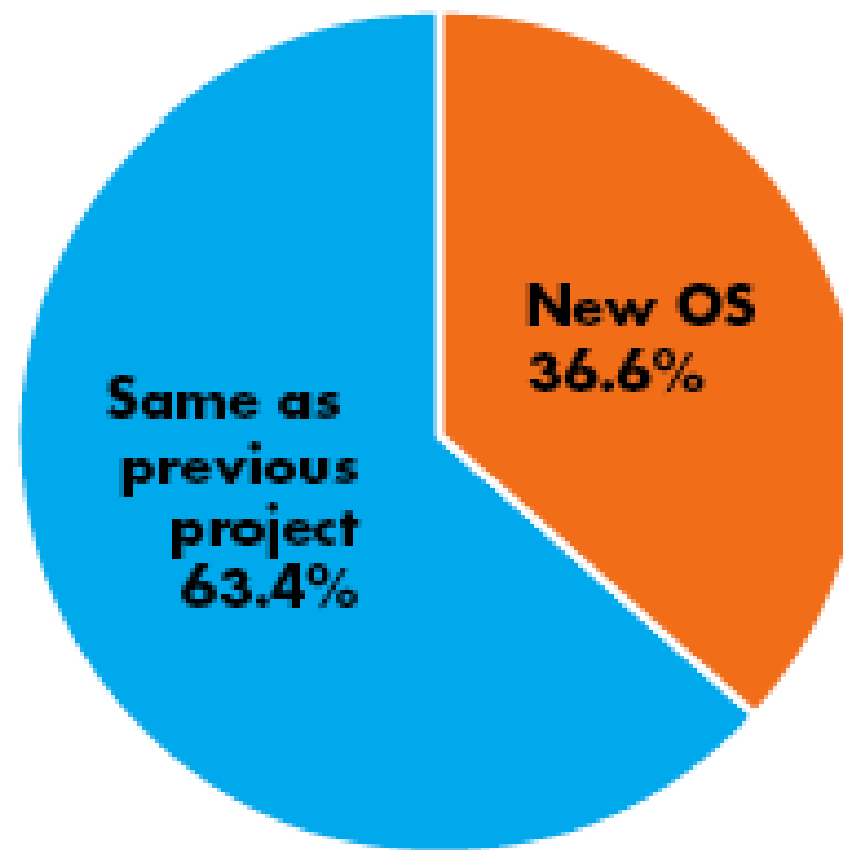
Likely future use





# Forever married?

RTOS loyalty is low



# Linux embedded

Prof. William Fornaciari

Politecnico di Milano – Dipartimento di Elettronica e  
Informazione

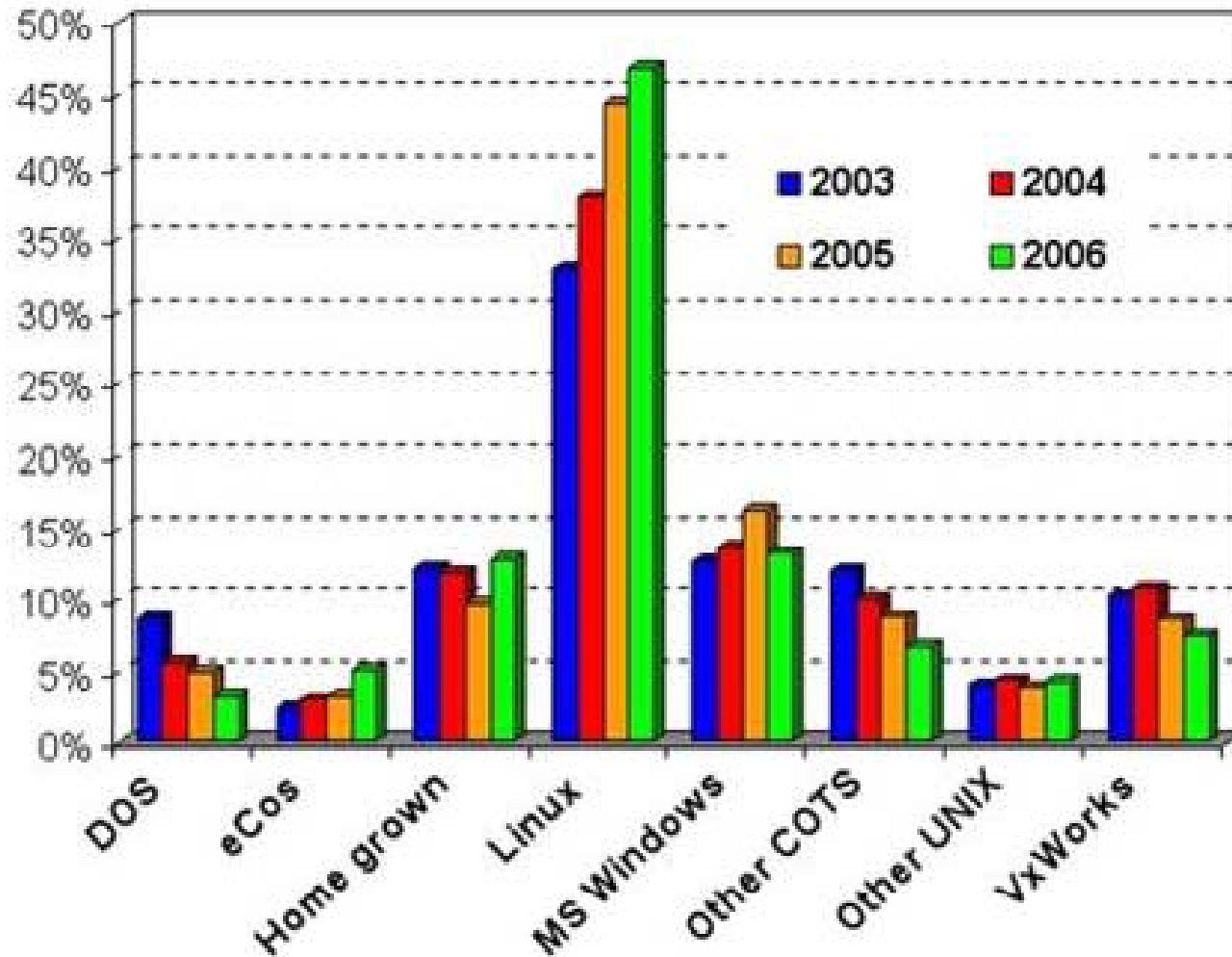
[william.fornaciari@polimi.it](mailto:william.fornaciari@polimi.it)

[www.elet.polimi.it/~fornacia](http://www.elet.polimi.it/~fornacia)

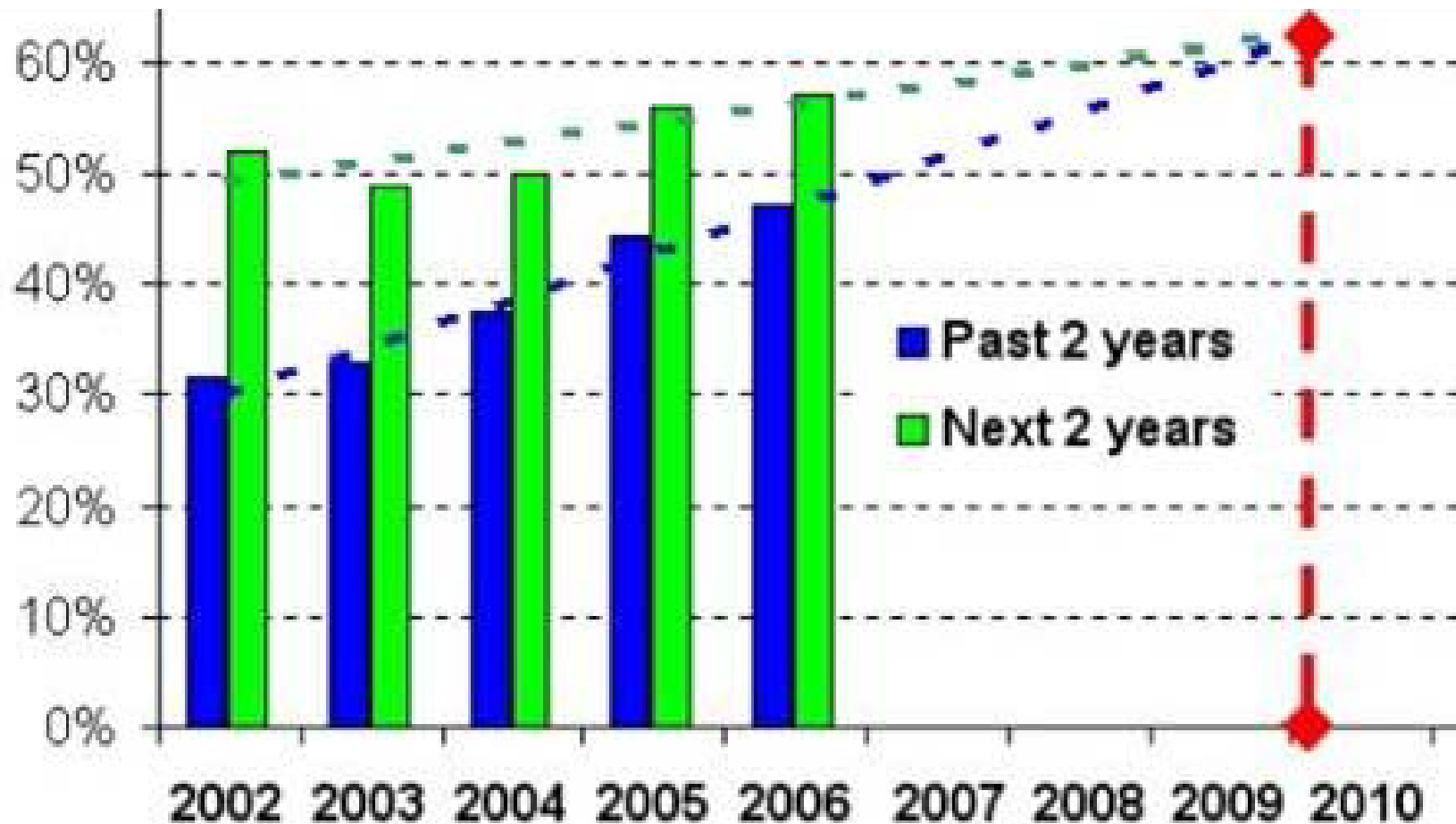
**Milano, June, 2009**

# Historical perspective – main players

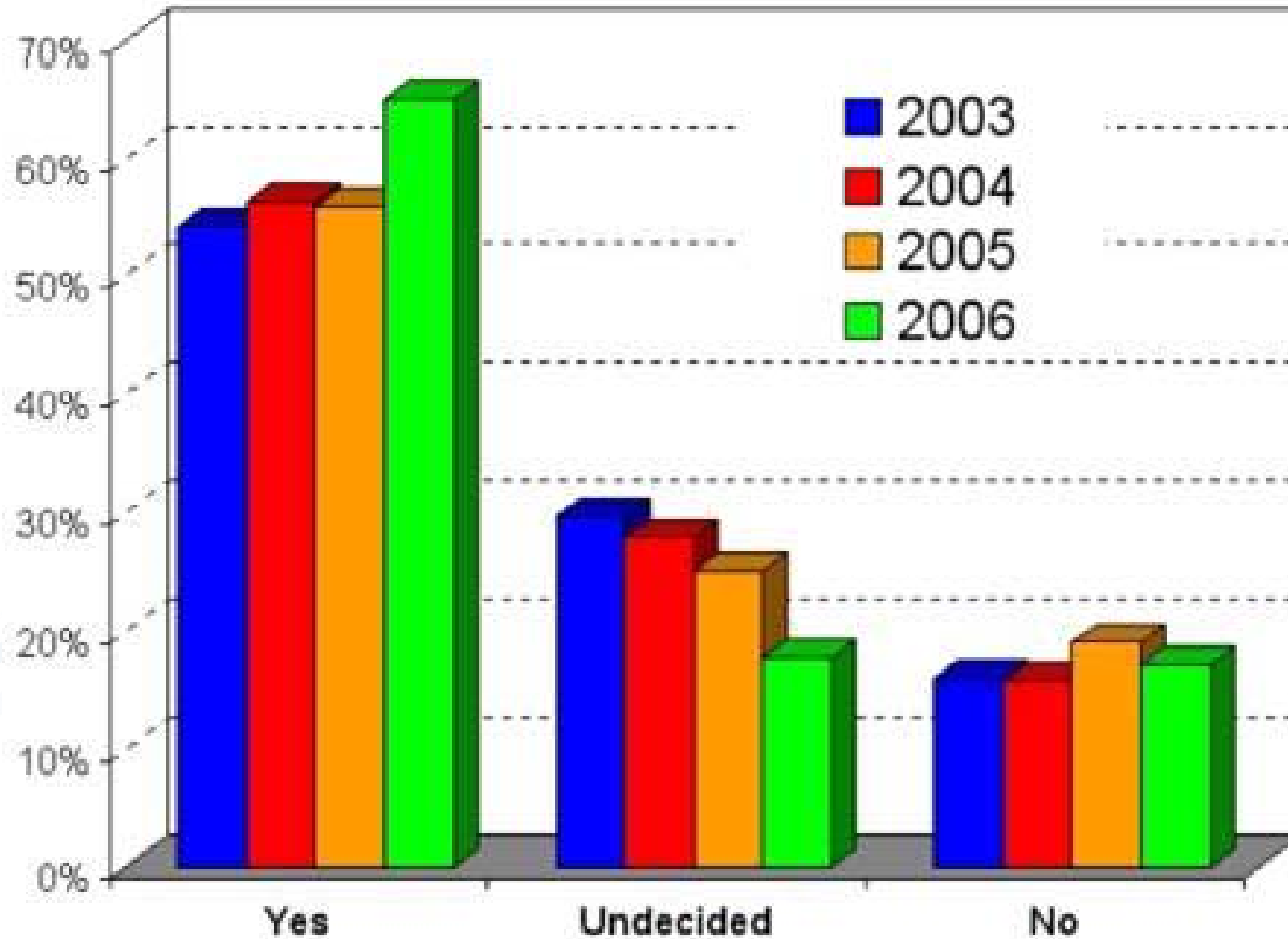
## Embedded OS sourcing trends



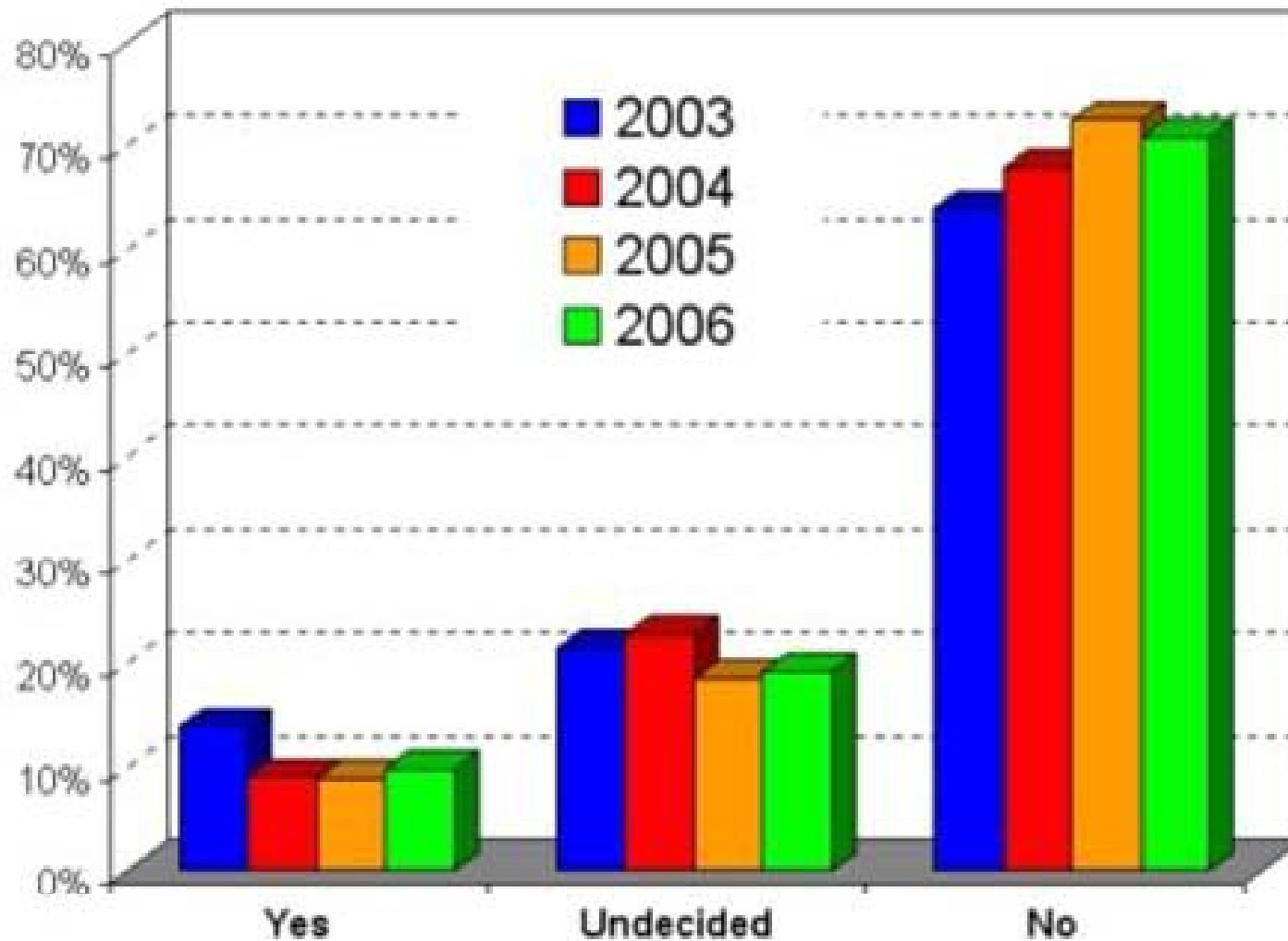
# Actual and planned Linux use may converge by decade's end



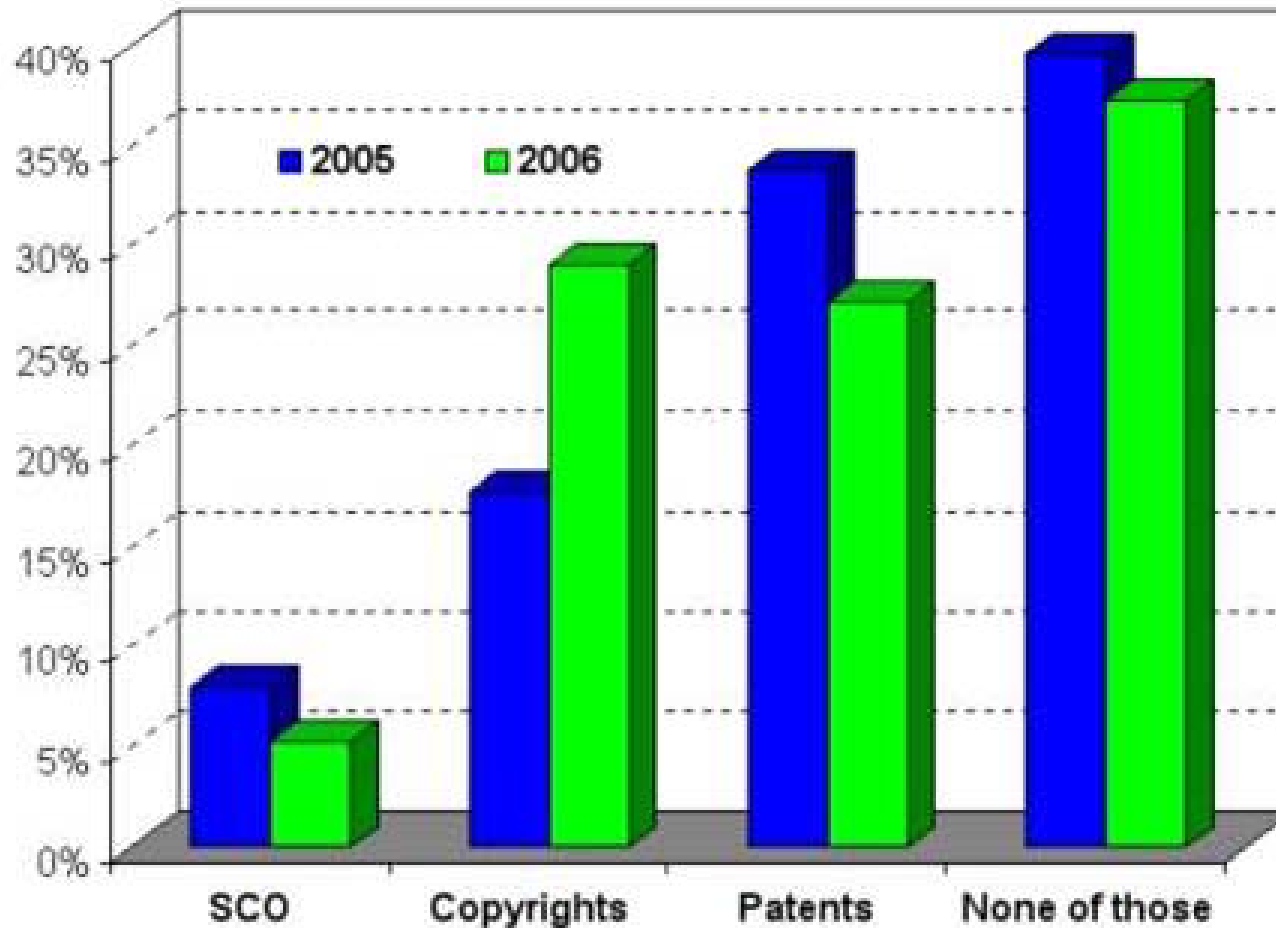
# Would you consider paying for support or services



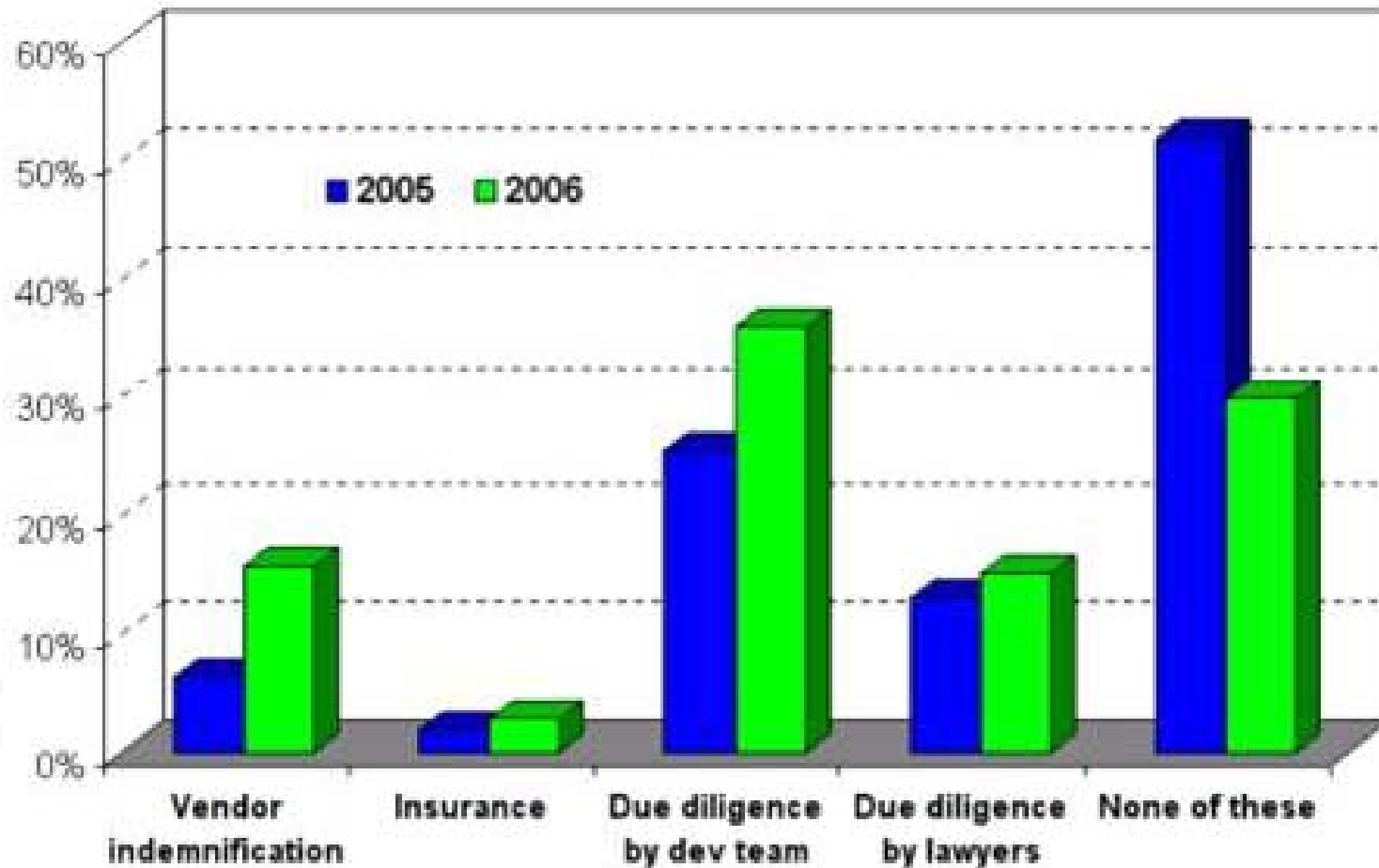
# Would you consider paying per-unit royalties



# Legal issues felt a significant concern in using embedded Linux



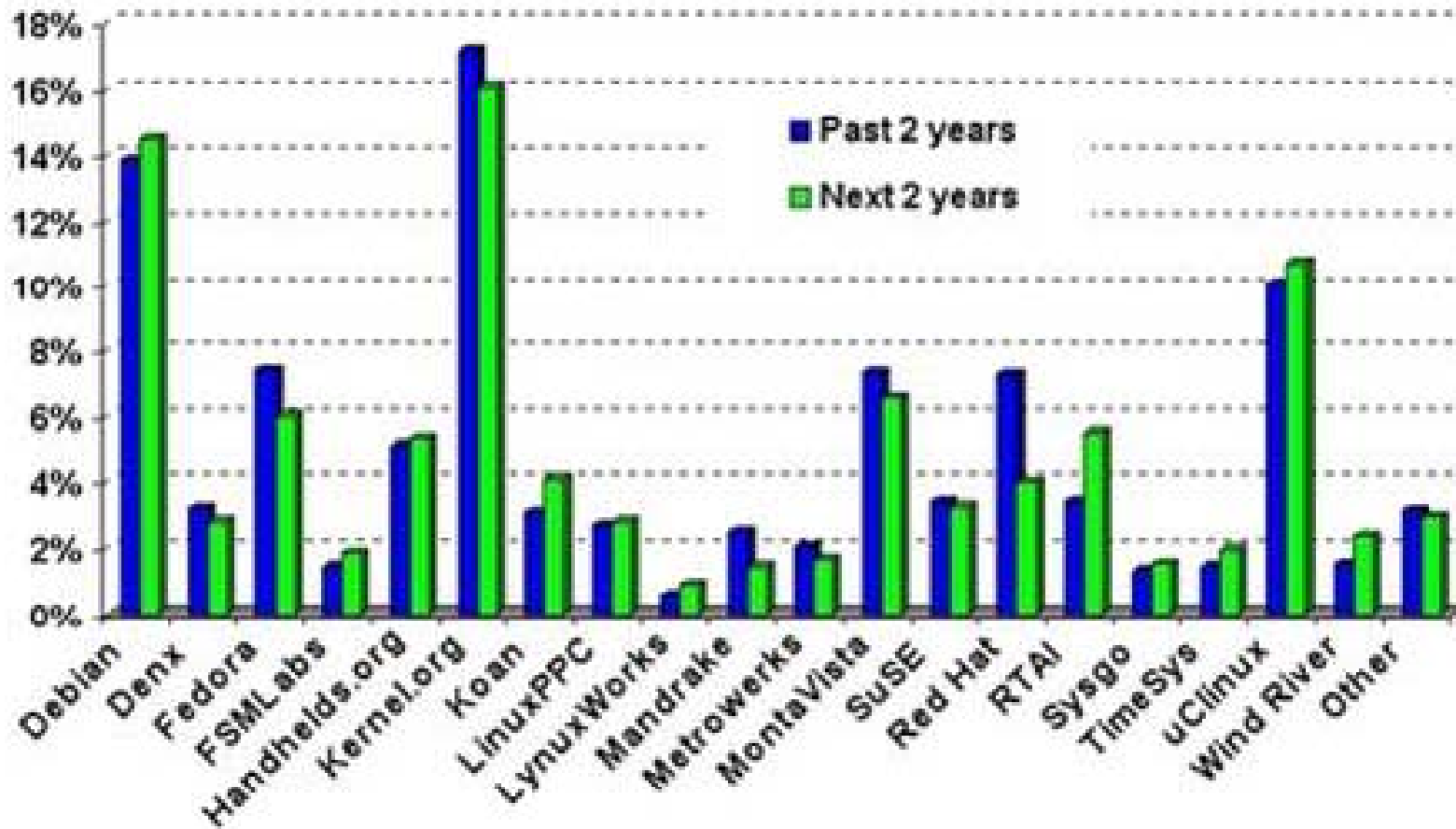
# How is your company dealing with legal concerns relating to embedded Linux





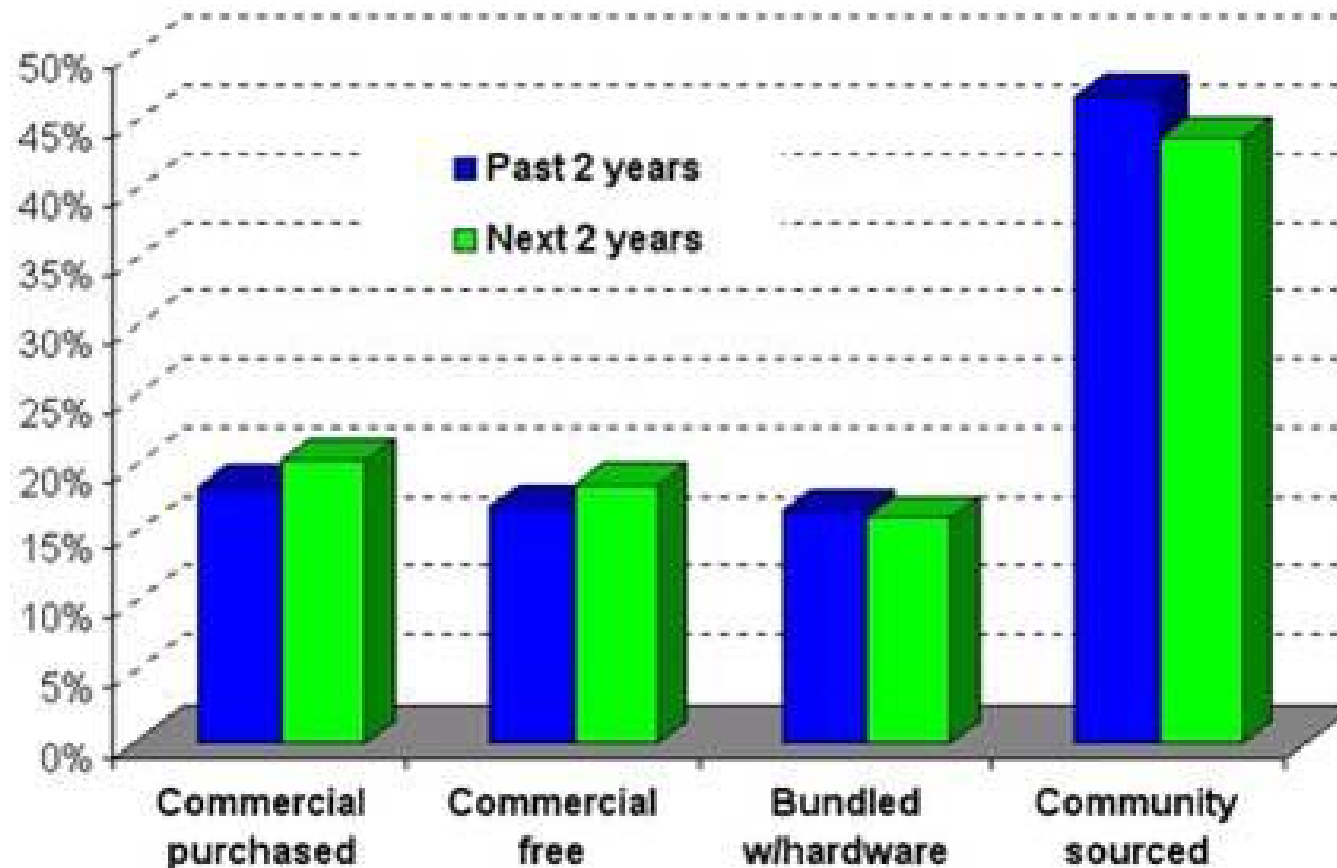
# What sources of Linux were used in your (company's) embedded designs during the past two years? The next two years?

### Linux sourcing trends in embedded device applications



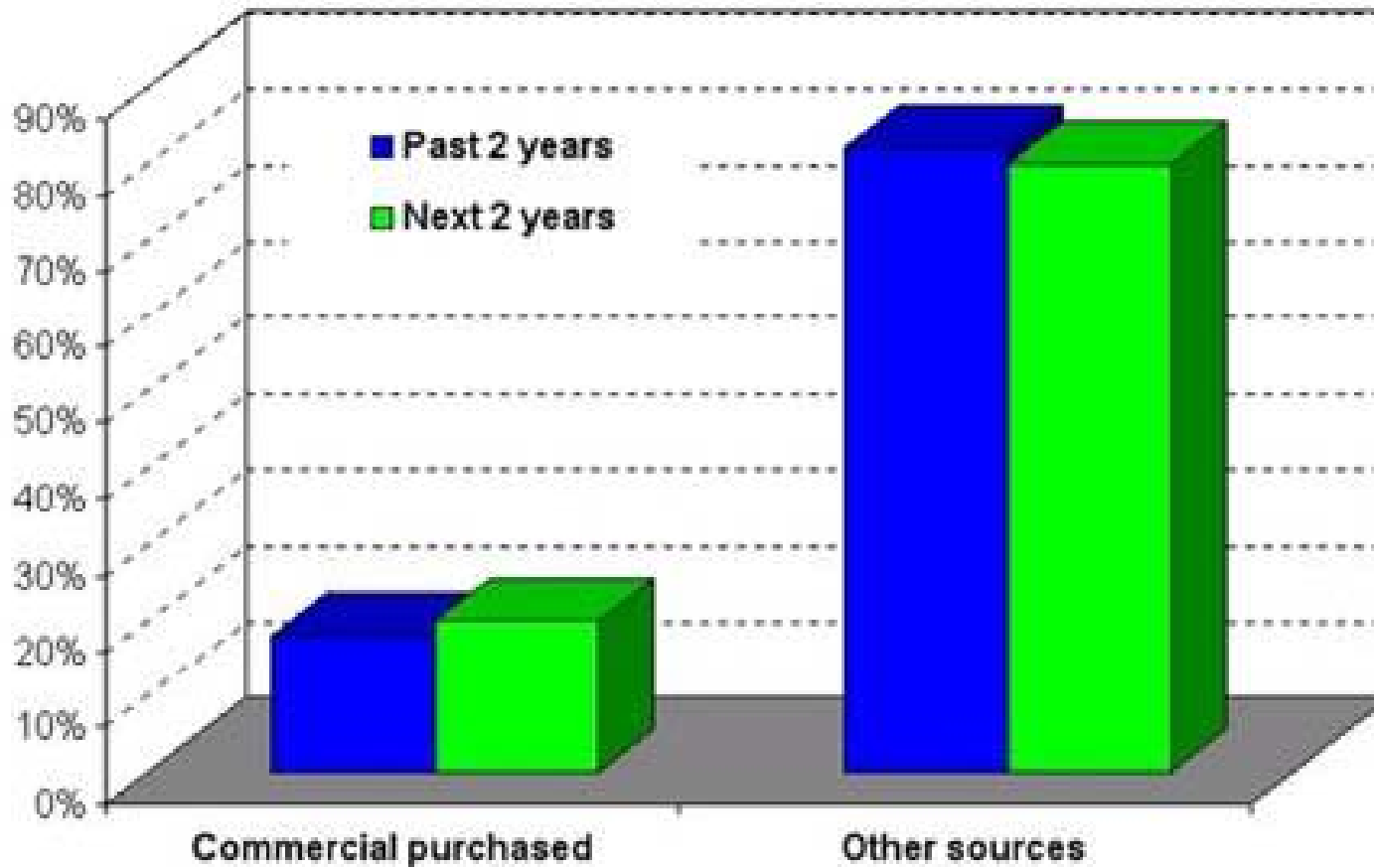
# How did you obtain your (company's) embedded Linux software during the past two years? The next two years?

### Embedded Linux source category trends



# Purchased from commercial embedded Linux vendor" vs. obtained in some other manner

### Commercial embedded distros vs. other



# What development tools do you expect to use?

