

# Power over both pair sets Economical & Technical Feasibility

## CONTENTS

1. Why is Cisco pursuing pwr/signal pairs
2. Economical feasibility
3. Technical feasibility



# Power over Signal Pairs Why is Cisco Pursuing

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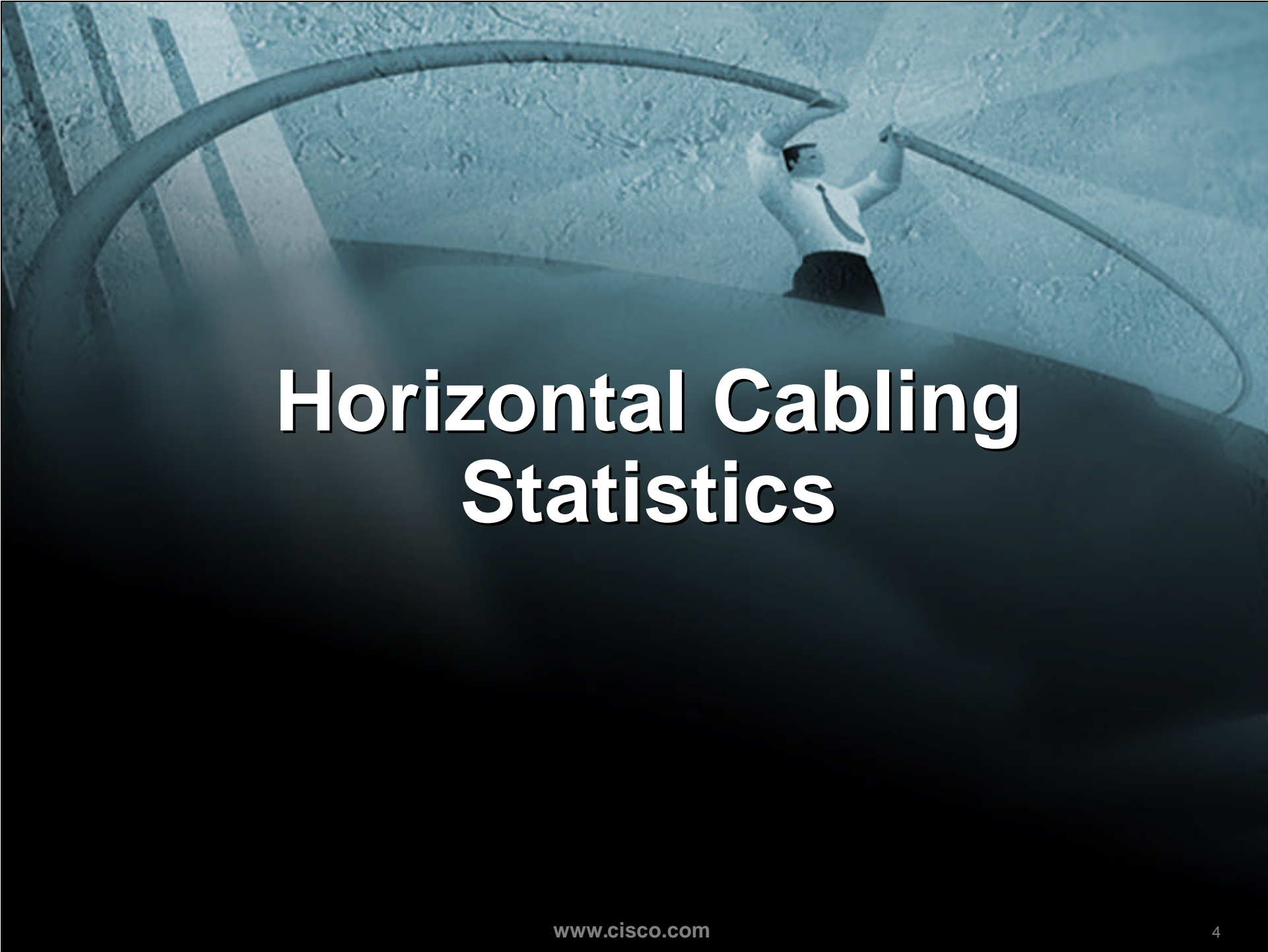


# Why is Cisco pursuing?

## “Broader Market Appeal”

- Many US and International organizations still have 2 pair cabling for 10/100
- Compatible with 802.3, ie. 10/100/1000  
**Proactively solve power over signal**
- Are we protecting existing product – **NO!**





# Horizontal Cabling Statistics

# What do Organizations have?

- Findings from direct user polling
- SC25/WG3 conclusions on 2 pair
- Sage Research Inc. survey 12/98

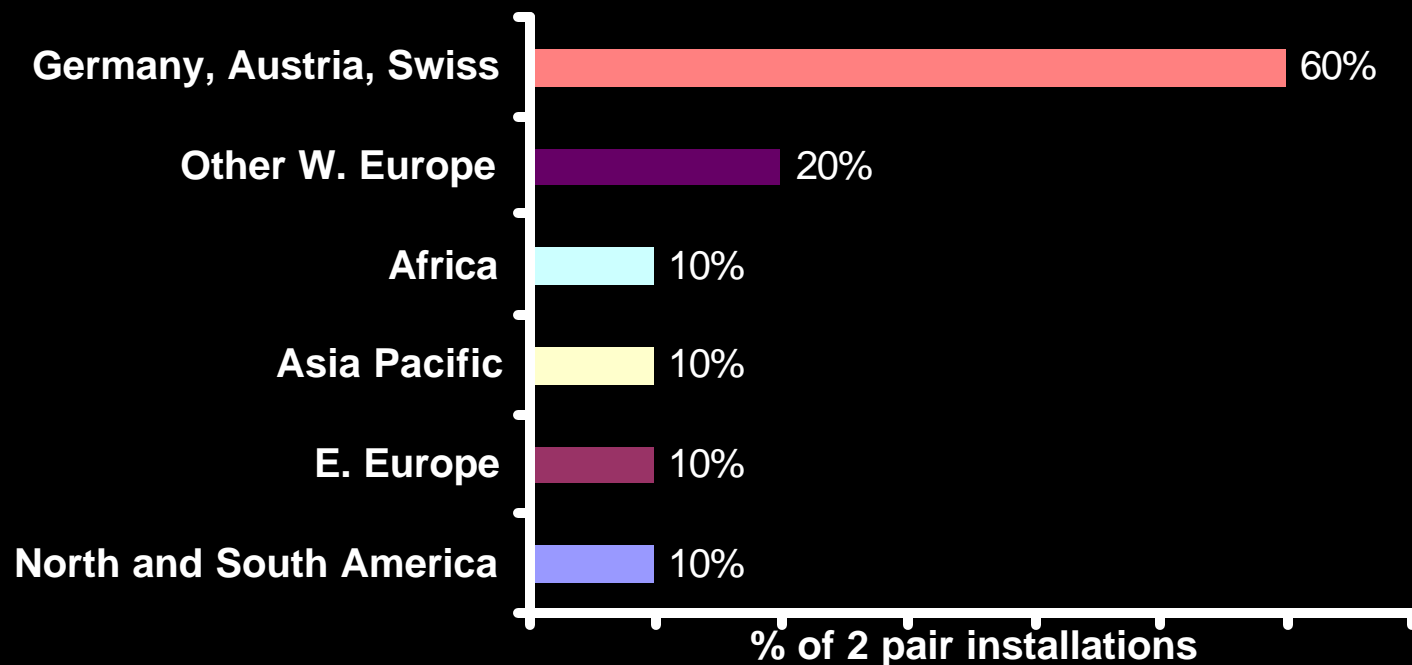
# Direct User Polling

- **IBM Cabling customers**
- **Seimens Cabling customers**
- **IBM corporate – last meeting**
- **Merill Lynch, Daimler Chrysler, Roche, UAL, Taco Bell**
- **Most of Germany**

# SC25/WG3 conclusions

**Majority of installed RJ45 base has terminated 4pair, BUT**

**% of connectors with less than 4 pairs terminated**



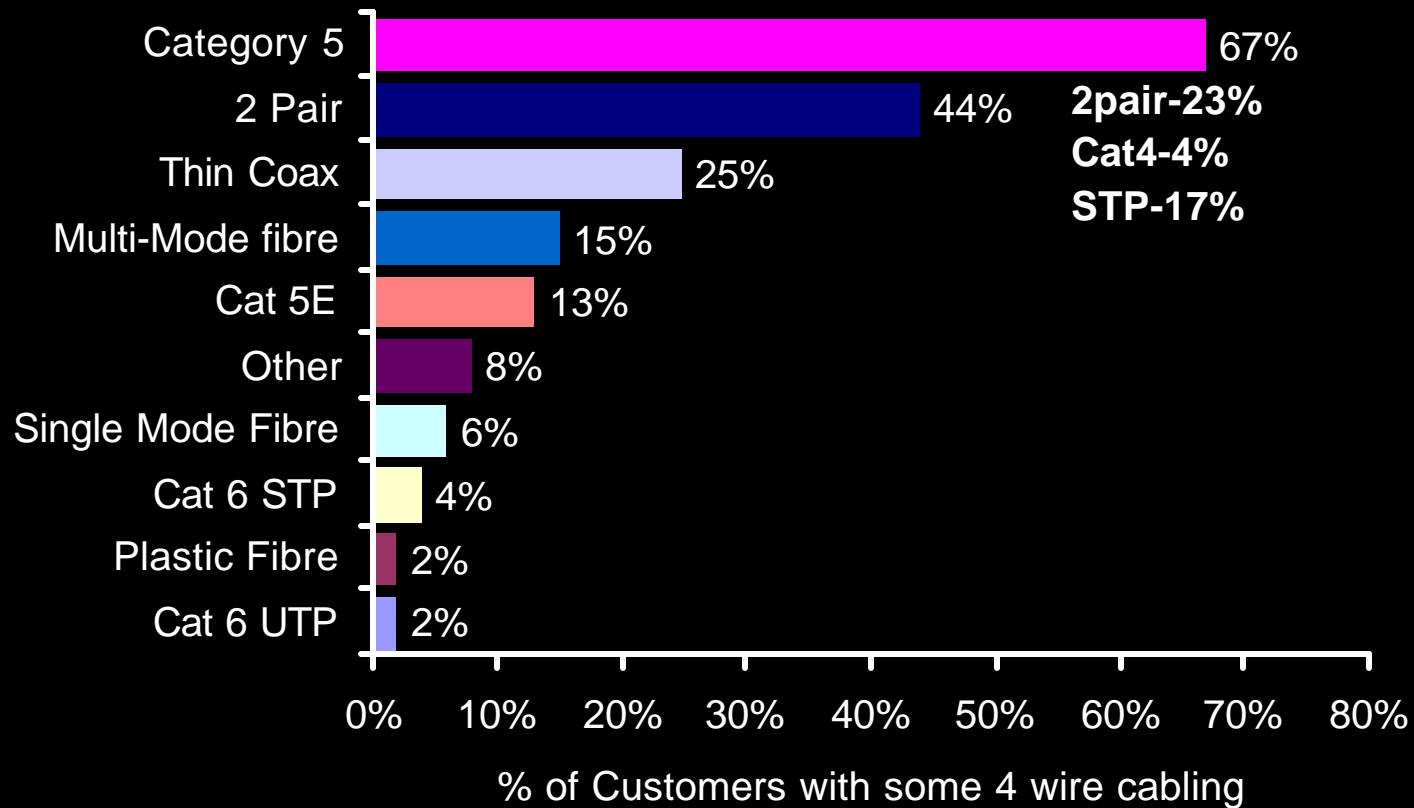
“SC25/WG3 Current Capacity Ad Hoc Report  
Recommendations to WG 3, 12 June 2000”

**Need to add installed type 1 cable plants**



# Current Horizontal Cable Usage Sage Research

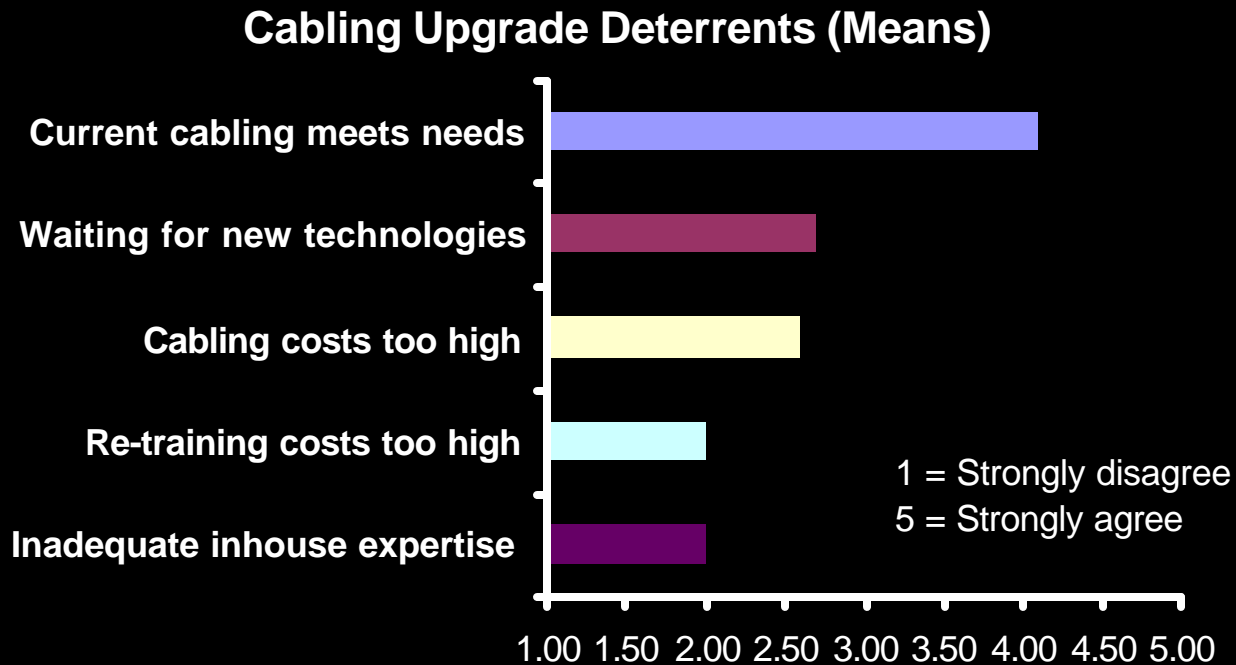
## Current Horizontal Cable types



Sage Research Inc. Dec. 1998



# Deterrents to Upgrading Sage Research

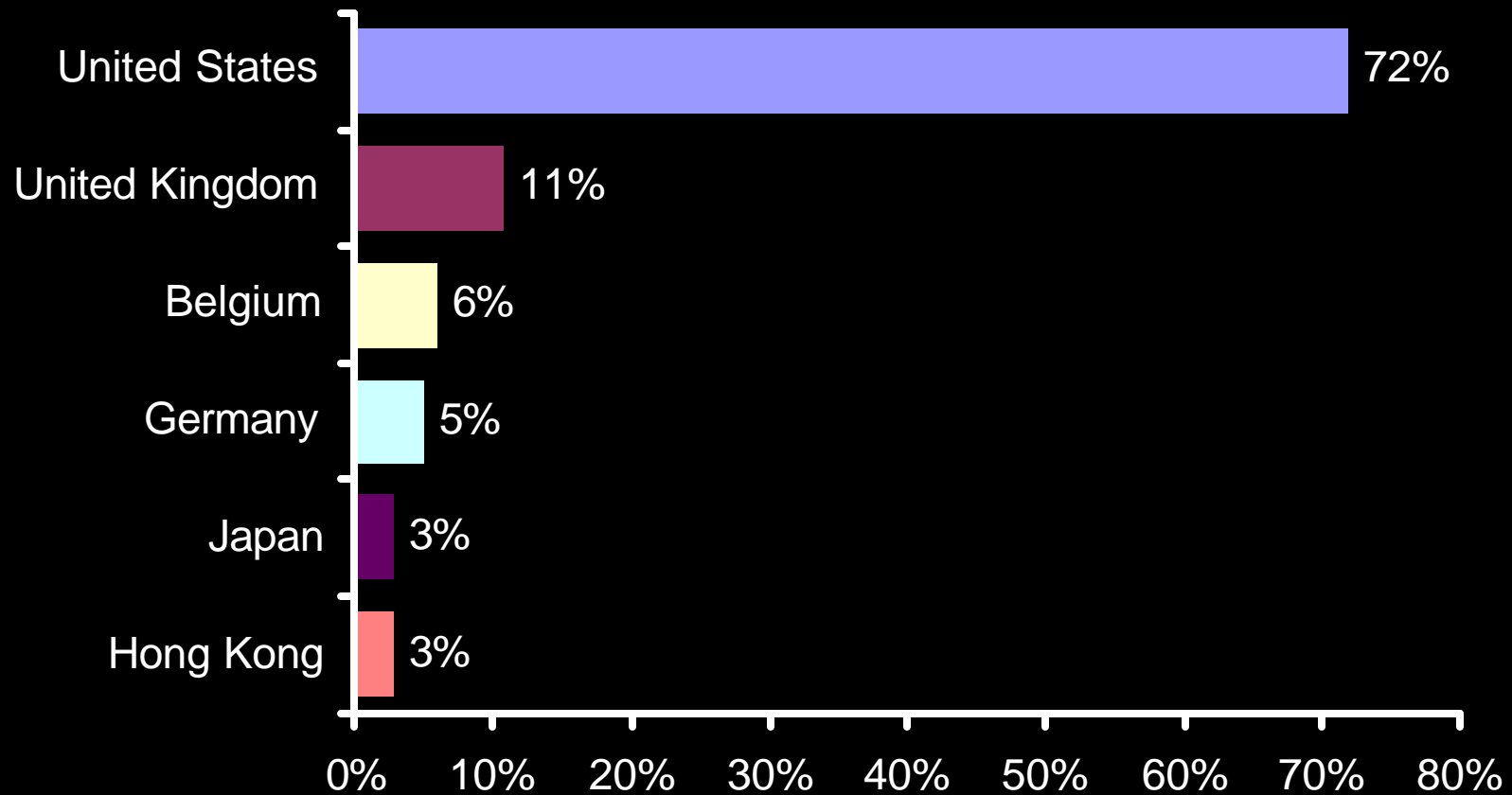


**Largest installed base of 2 pair is outside US**

**“62% of non-US organizations agree high cost is deterrent. Only 20% of US organizations agree its cost”**

**Sage Research Inc. December 1998**

# Survey Participants Sage Research



Sage Research Inc. Dec. 1998



# Why both pair sets in DTE

# Why 2 pair sets in DTE?

- **Signal Pairs**

- supports **all** 10/100 cable plants

- **Unused Pairs**

- for passive mid span insertion
- If mid span insertion on 1&2 then single solution

- **Pros:**

- Broader market appeal (criteria 1)
- Compatible with 10/100/1000 (criteria 2)

- **Cons:**

- Two solutions rather than one (criteria 3)





# Summary and Next Step

# Summary

- **Broader Market Appeal**
- **Compatible with 802.3**

**All 10/100 cable plants**

**Gigabit will require power over signal**

## Next Step

**Show economical (criteria 4) & technical (criteria 5) feasibility of supporting both pair sets in DTE**