

# Hydrocarbons - for Cleaner Greener Coolers and Freezers

Unilever's HC Ice Cream Cabinets



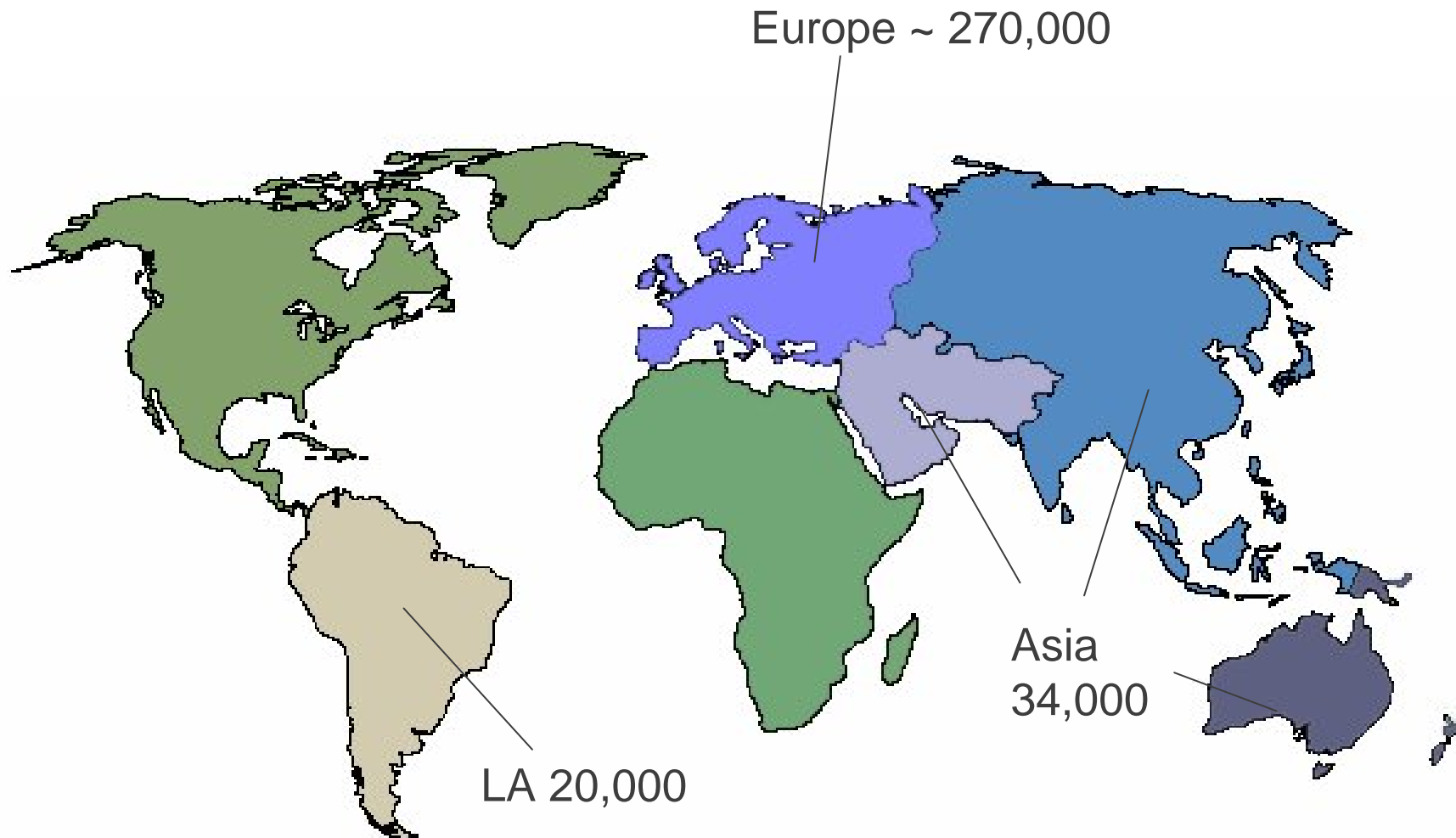
# Unilever's Commitment



- Unilever commitment made in 2000:

.....to purchase HFC-free cabinets by 2005 where commercially viable alternatives can be legally used...

# Progress



Total HC Cabinets 330,000+ from 2 million world wide



# No Progress Yet In...



North America

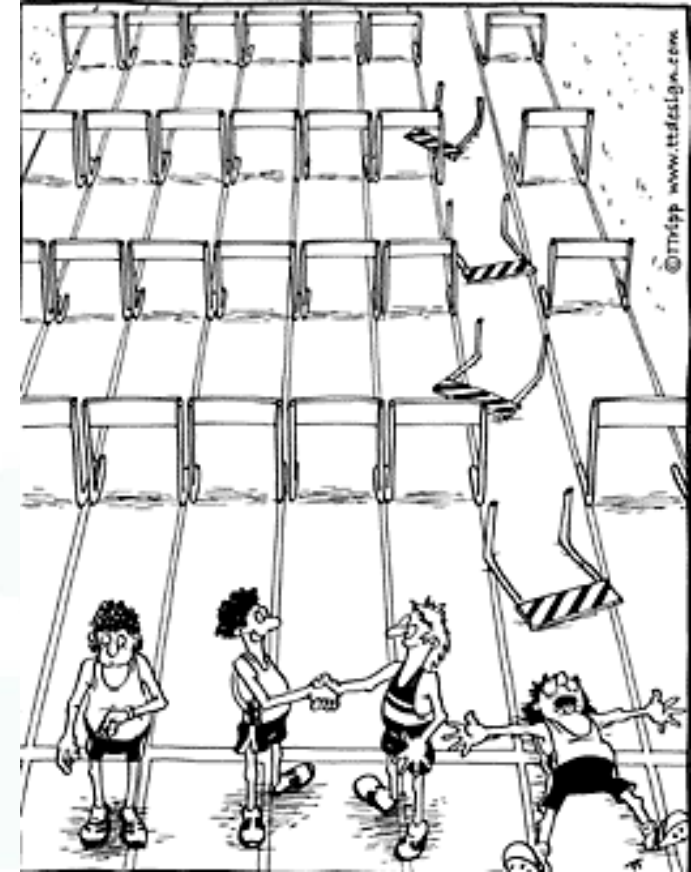


Africa – plans to go in to South Africa

# Hydrocarbons in the US



- Unilever would like to start rollout of HCs in the US
- To do that some barriers must be hurdled
  - US Environmental Protection Agency (EPA) SNAP for new refrigerants
  - Standards for flammable refrigerants
  - Technician training



# EPA Clearance



- Unilever will take two actions to clear the EPA SNAP hurdle
- Seek approval for a trial of hydrocarbons in ice cream freezers
- Submit a SNAP application
  - If successful, acceptance of hydrocarbons as a refrigerant in ice cream cabinets in the US



# Quality/Safety Standard



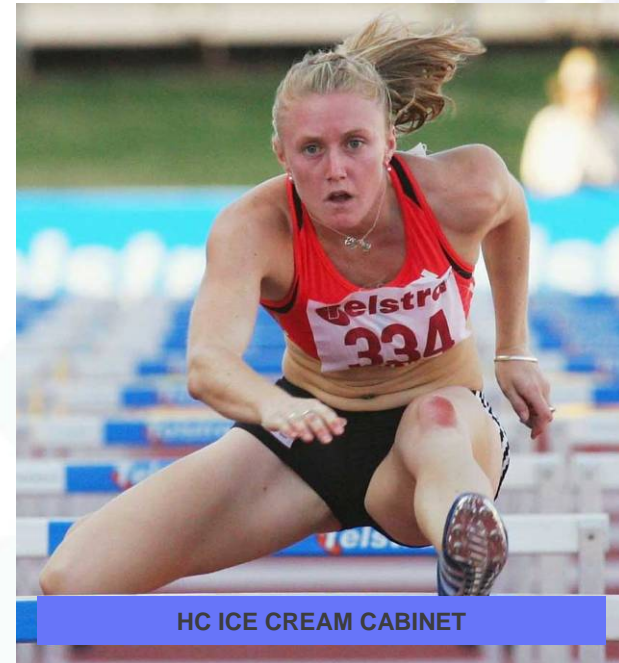
- Unilever prompted an amendment to UL 471 for flammable refrigerants to go to their standards committee
  - Now in place
- Get propane (R290) classified by UL
  - Butane was already classified
  - Propane still required



# Quality/Safety Standard



- Get an R290 compressor through UL standards tests
- Get an ice cream cabinet built capable of meeting the UL 471 standard



# Training – Service Technicians



- Together with Cool Concerns Unilever already has a training package for service technicians available
- Proposal is to team up with US organisations to get this training available US wide for accreditation of technicians



# Unilever HC Cabinets in the US



- When all the US regulatory hurdles have been cleared, Unilever will undertake a test with limited numbers of cabinets

