Memory

we don't know how much of that is hot data, how much is cold data that's never touched, how much is used during business hours, how much is only used overnight, etc.

Everything depends. Some people here say "plan to put your whole database into memory". I would say that depends:  
1) Is it an OLTP database?  
2) Do you run big queries?  
3) Can you optimize your SQL?  
  
I once had a third party Oracle database. The company claimed that my TEMP tablespace should be 3x size of DB. My DB was 100GB, I need 300Gb in TEMP, what? It turned out this was a case of 1 (I say it again - ONE) SQL that was executed once a month that would expand my TEMP from 10GB to the max allowed on the Win32 server to the size of 32GB. Every tool that I would use to optimize that query would show 3 full scans on massive tables - no optimization at all. Simply because the third party would not bother to listen to my recommendation to "optimize that query".   
  
I have another SQL Server database. Dusing regular OLTP activity it uses 18GB out of 32GB. Only one user who runs 1-2 ad-hoc queries and gobbles up the rest a few days after a reboot.   
  
Buying more memory is the only option if you cannot opimize your query.

 sum up the "Size" column of sys.master\_files for all of your MDF/NDF files and divide by 128, what do you get for a result