

solarcombi+

WP2 MARKET ANALYSIS - Phase1

Effie Korma

Centre for Renewable Energy Sources

Phase 1

Market research on three pillars

- Small scale chillers (D2.1)
- Solar thermal applications (D2.2)
- Consumers (D2.3)

Markets to be analysed

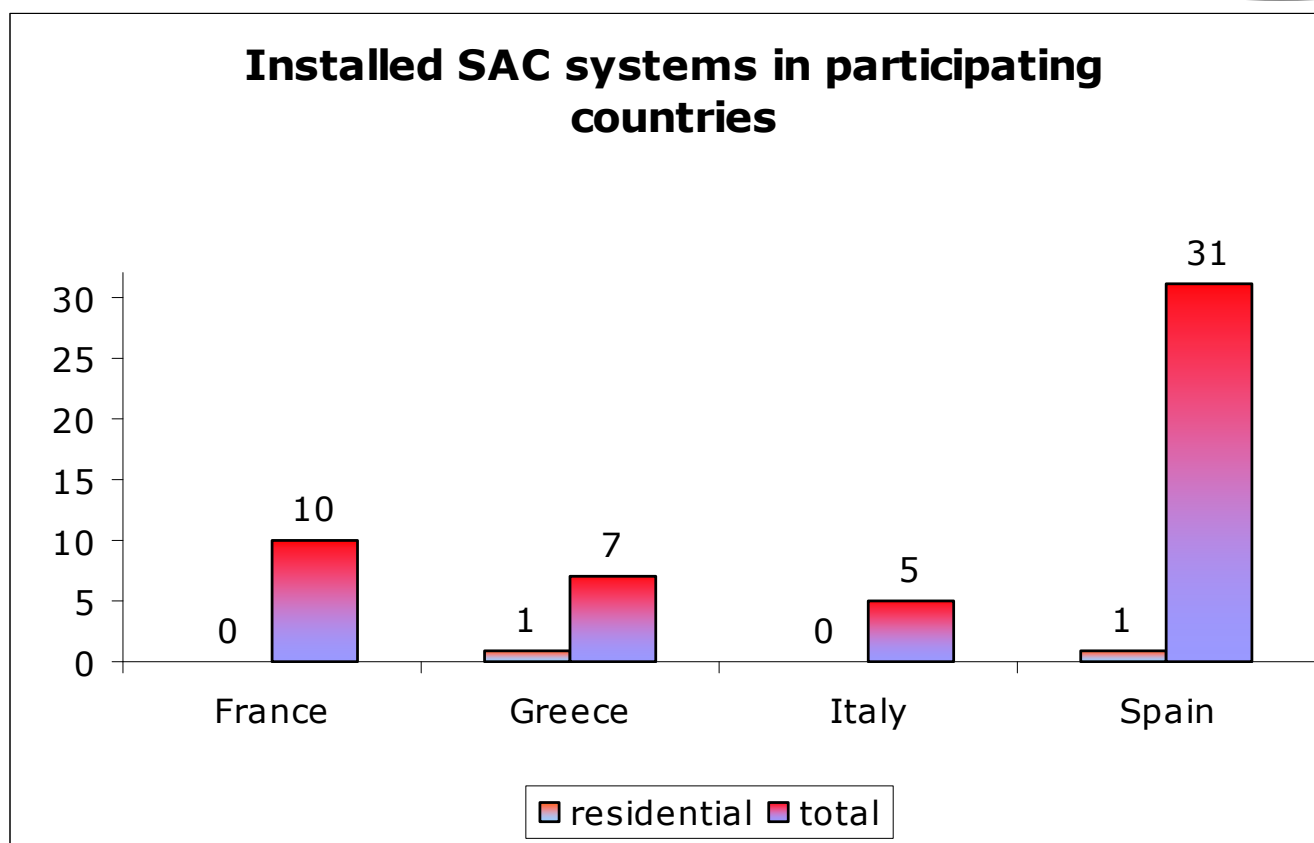
- Italy, Spain, Greece, Germany, Sweden, France & Austria (participating countries)

Methodology adopted

- Synergy among IEE projects
SolarCombi+ & SOLAIR
 - Using input from the SOLAIR questionnaire concerning the existing SAC systems (residential & non-residential sector), national AC market
- Questionnaires development (2 different and dedicated)
 - Questionnaire for the “industrial partners” of the project (existing technologies, kind of systems etc.)
 - Questionnaire for the “consumers behavior” based on conventional AC

Market Analysis Input from SOLAIR project

SOLARCOMBI+ Swedish partner:
15.000 Solar Thermal installations
for space heating in Sweden
(2000 installations/year)

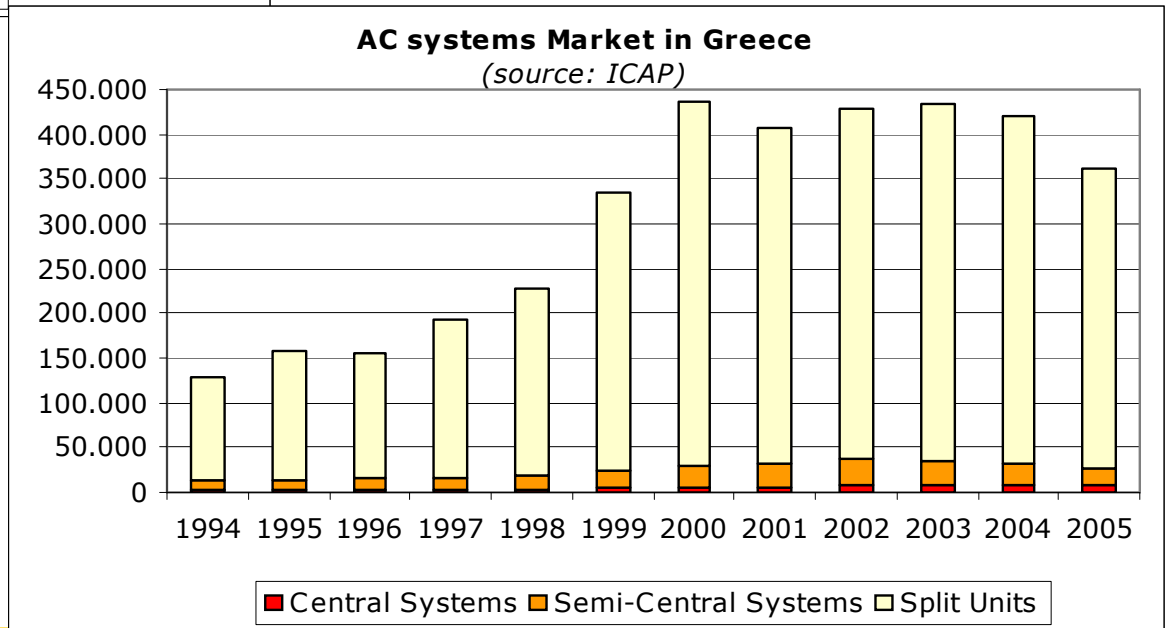
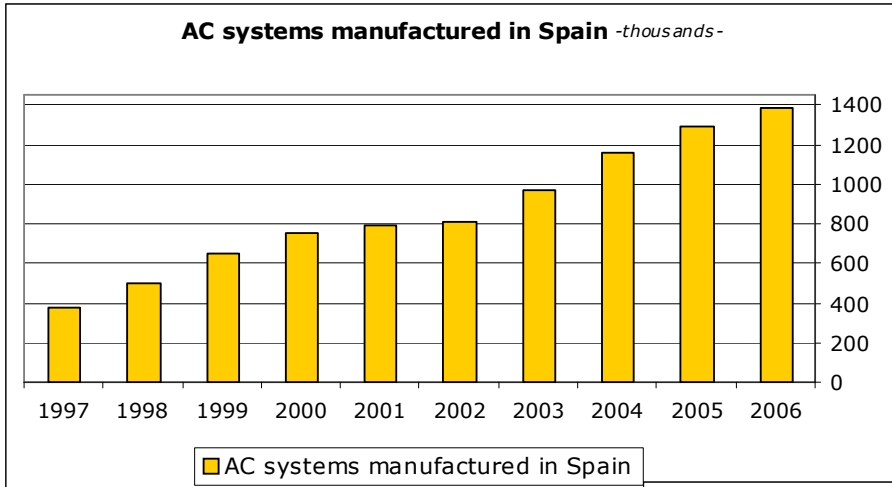


Source: Solair project



Market Analysis Input from SOLAIR project

National AC market's trends

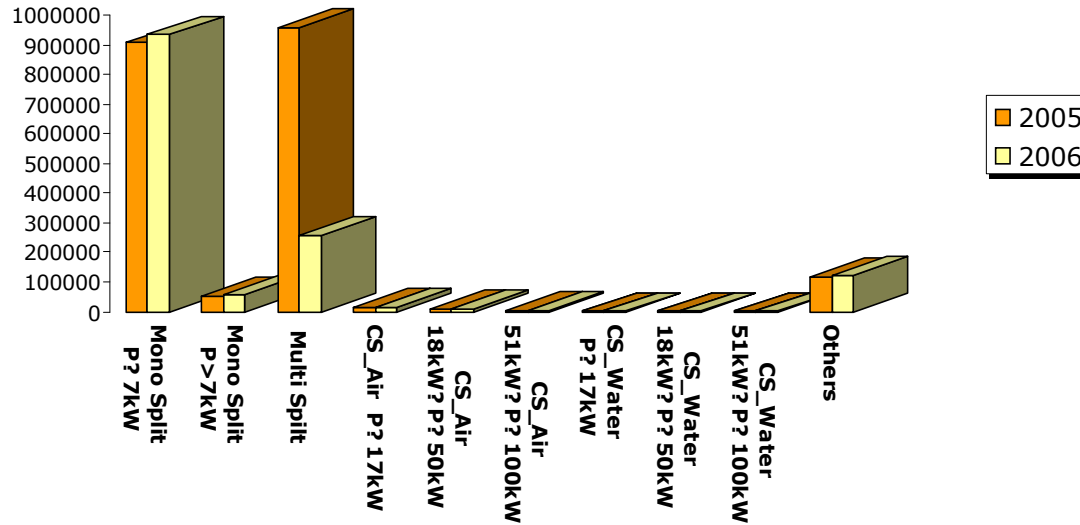


Source: Solair project



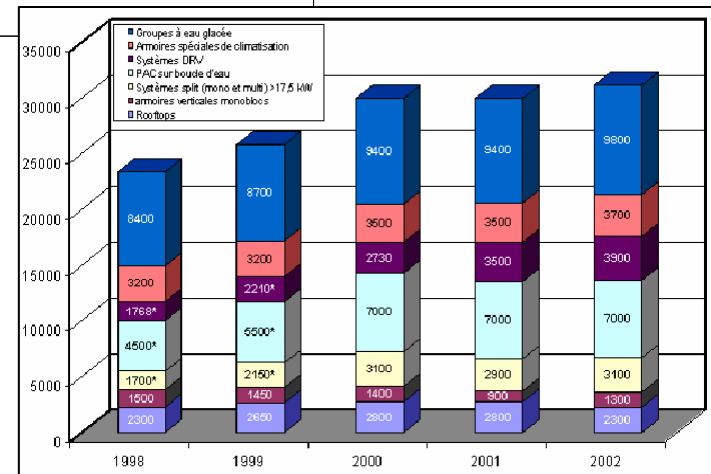
Market Analysis Input from SOLAIR project

Italian AC Market Analysis 2005/2006



National AC market's trends

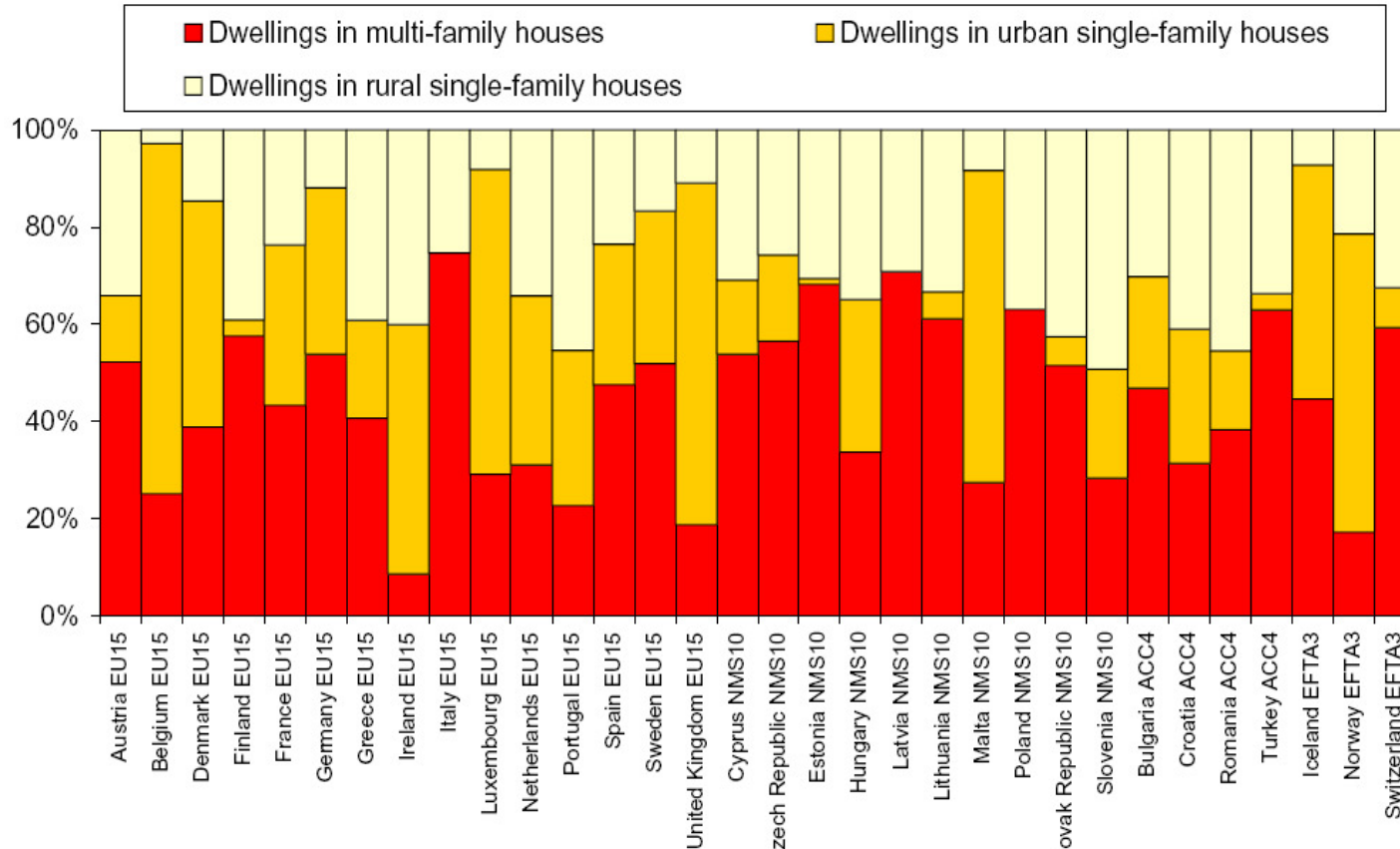
French AC Market Analysis



Source: Solair project

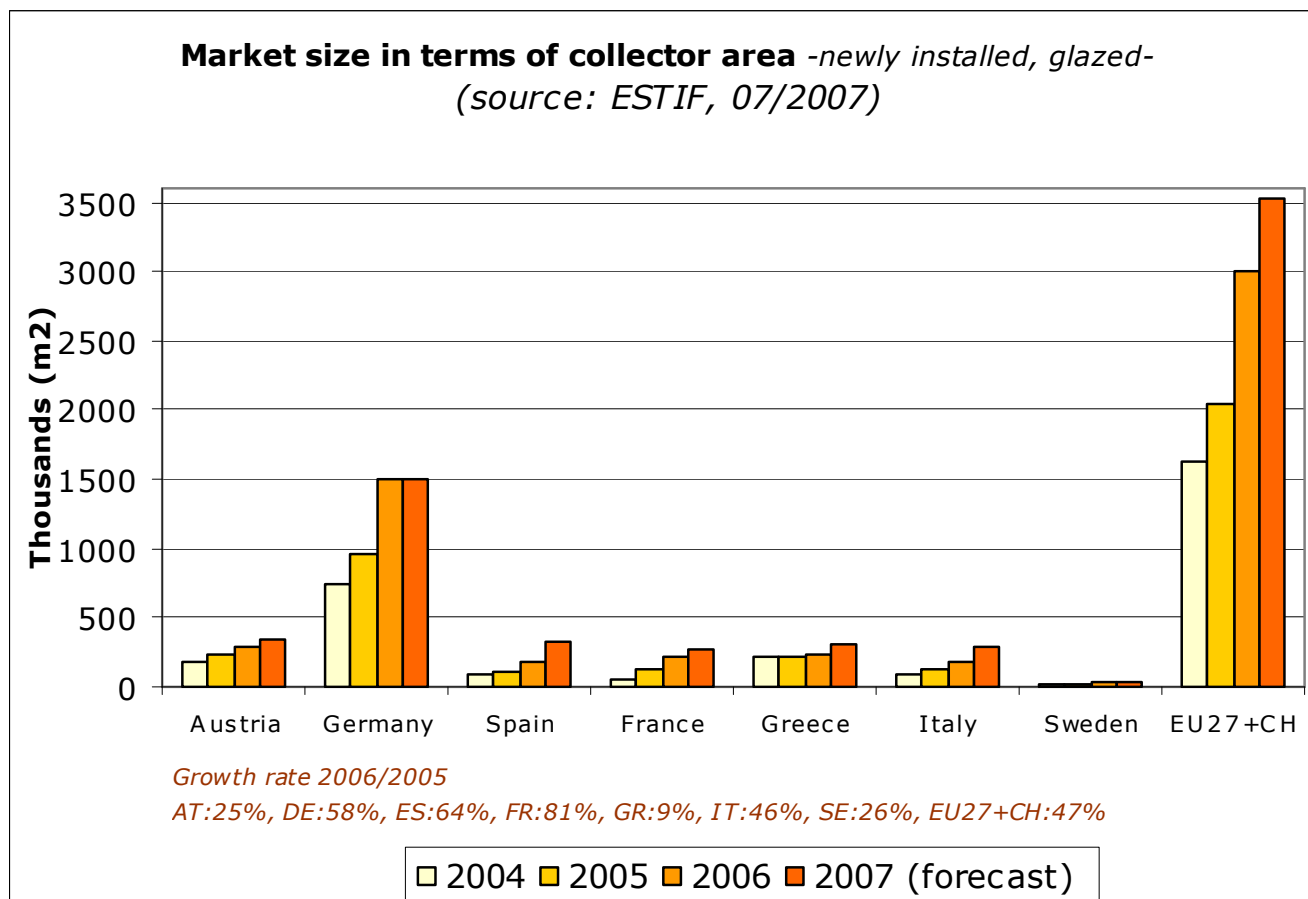


Market Analysis Input from SOLAIR project Buildings stock info



Residential living situation with respect to fraction of dwellings in multi- and single-family houses, based on the latest year (2006)

Market Analysis Input from other sources





Pending info

(according to the indicative paragraphs of the SOLAIR questionnaire)

- Input from German & Austrian partners about
 - AC Market (overview)
 - ST Market (overview)
 - Building stock
 - Installed SAC systems



Questionnaire SOLAR COMBI+ for industrial partners

Germany: SorTech & SonnenKlima, Austria: Solution ,
Spain: IKERLAN & ROTARTICA, Sweden: ClimateWell

Structure

- **Section A: Technology-Characteristics**

Technical info about the system and/or products
(chiller technology, refrigerant, cooling capacity, cop,
dimensions)

Operational Parameters (Temperature & flow rate)

Solar System

Compatibility with other energy sources & external
systems

Other technical parameters



Questionnaire for industrial partners

- **Section B: Costs /Market Description**

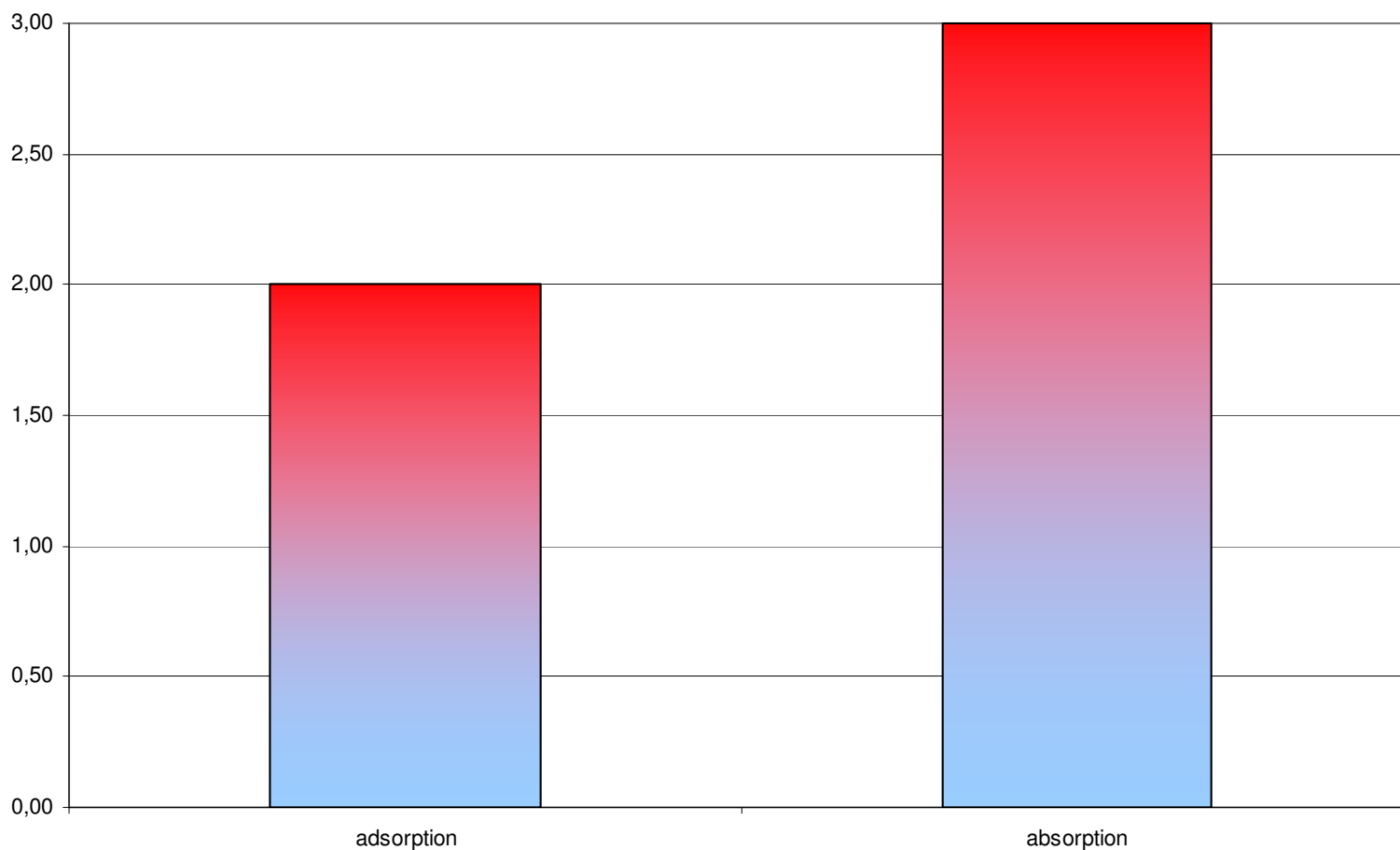
- System's cost breakdown (Components or products cost)
- Selling method
- Volume of sales
- Recommended use of the given system regarding the dwelling type (single family house, multi flat apartments etc)
- Markets of interest
- Projections (of sales, costs and turn-key price)

- **Sections C: Other**

- Customers opinions about the overall system operation, the provided services and costs
- New products foreseen

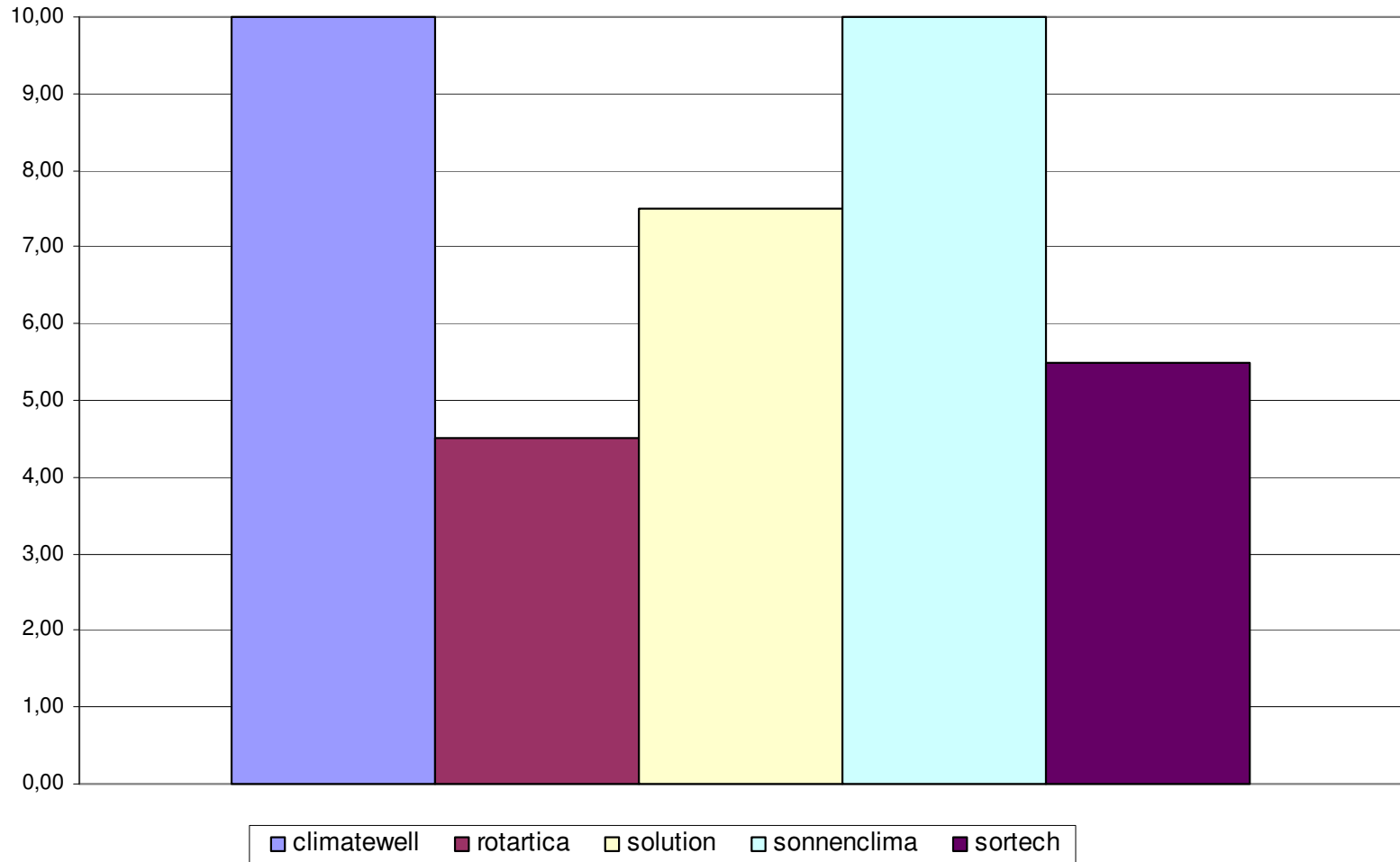


Available Chillers Technologies

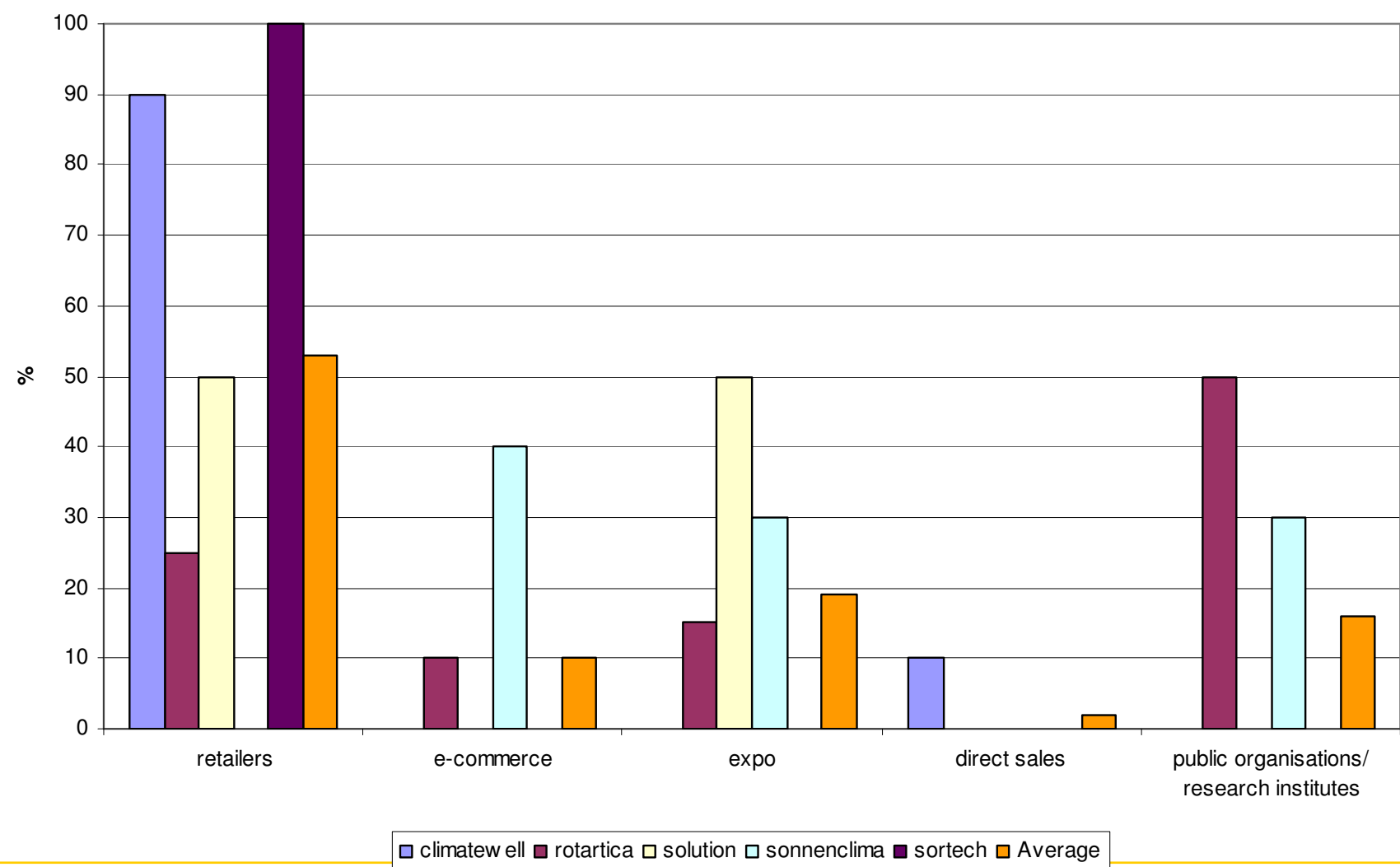




Chillers Cooling Capacity (kW)

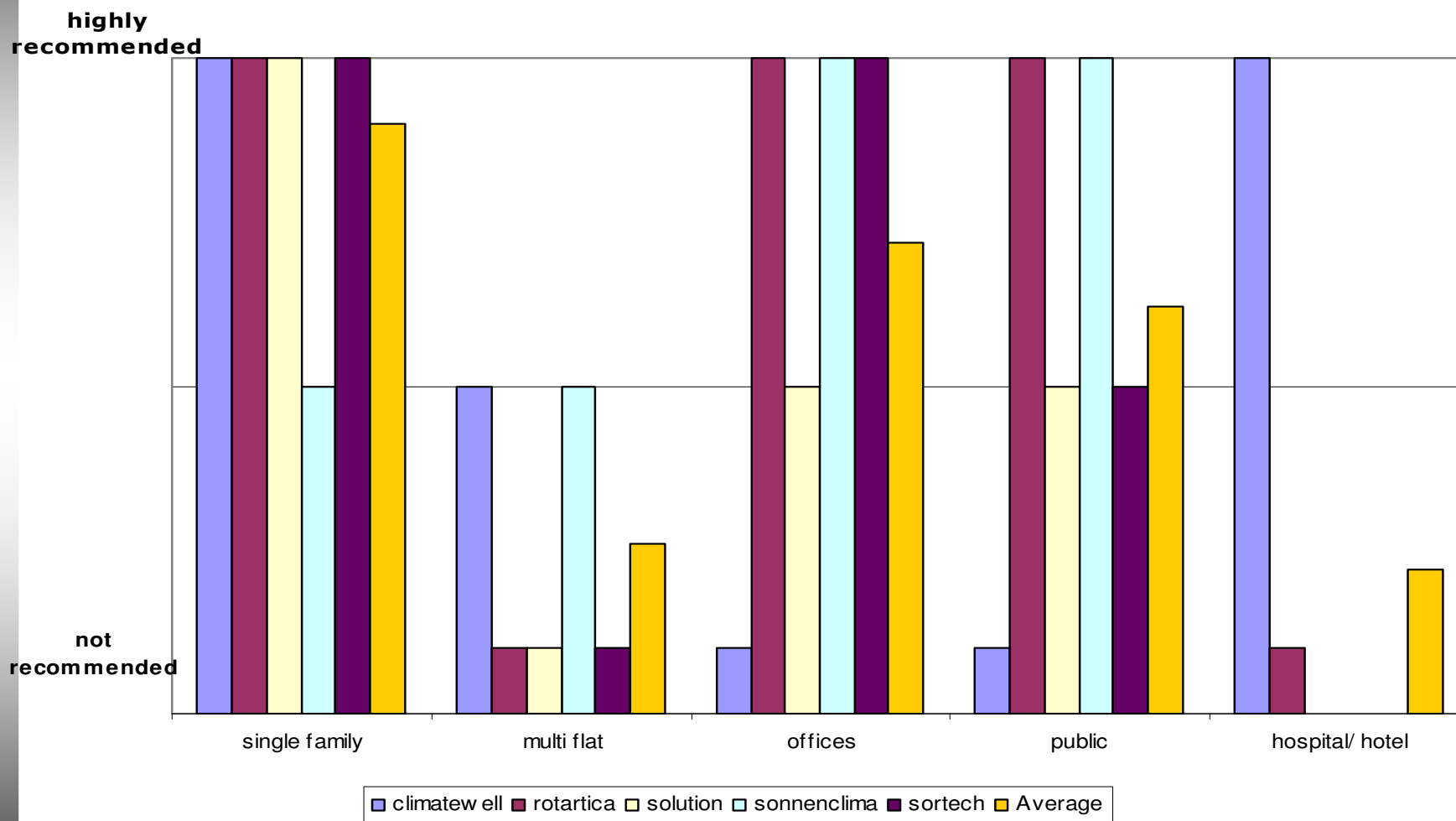


Selling Method





Recommended use of the given system regarding the dwelling type

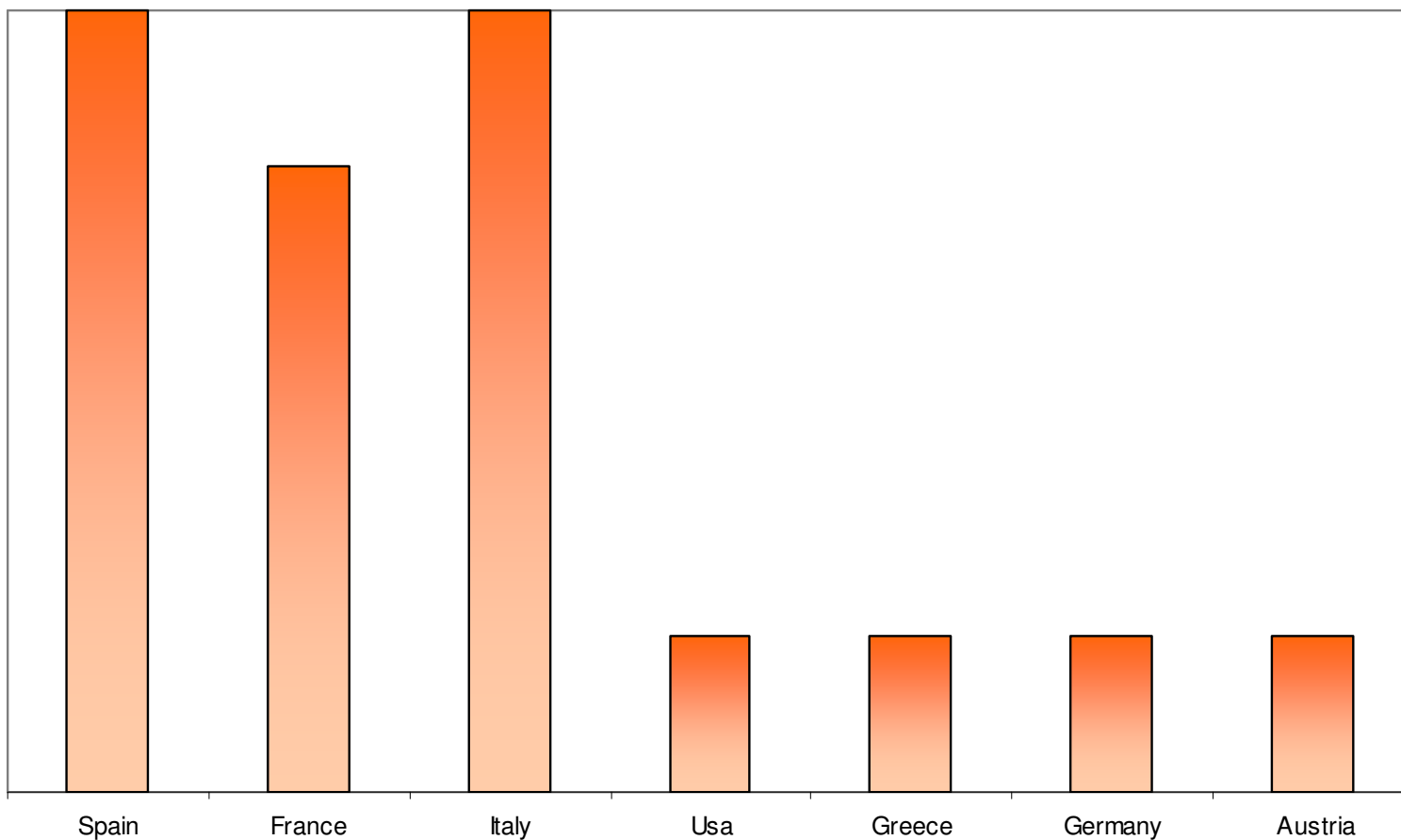




Markets of interest

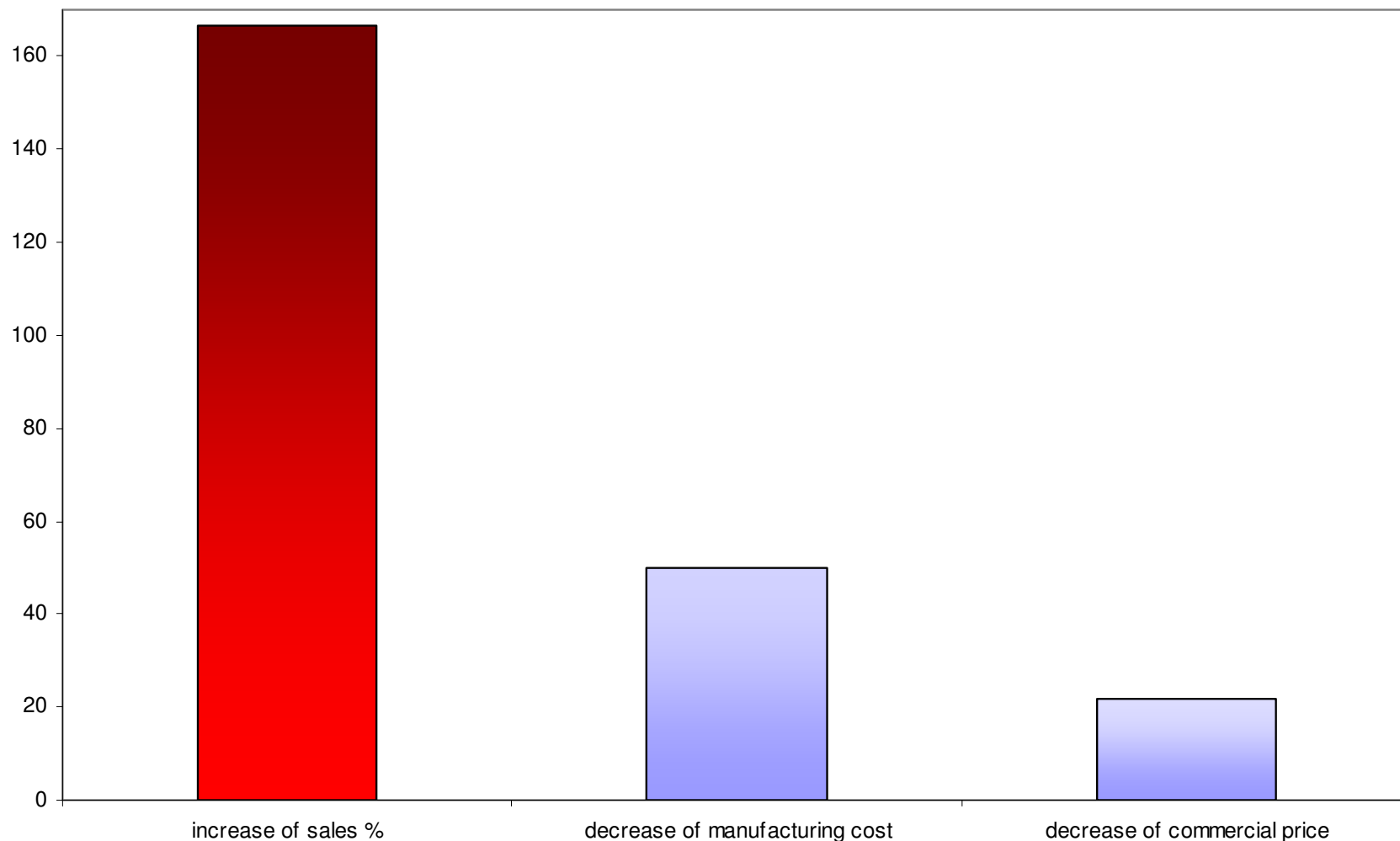
(input from SOLARCOMBI+ industrial partners)

higher
priority





Correlation between sales, manufacturing cost & commercial price (average)





Remarks...

- Small scale systems are suggested for single family houses, offices & public buildings.
- It is clear that southern countries are targeted markets for these systems

Confidentiality issues: what kind of data will be available



Questionnaire for “consumers behavior”

- Questionnaire built up to record consumers attitude based on the AC systems retailers opinion
- Quantitative & qualitative approach of the AC systems market

Structure

- **Section A: General Info of retailer**
 - firms represented by the retailer,
 - sales allocation (region, sector)
 - type of system (central, semi-central, split units)
 - volume of sales



Questionnaire for “consumers behavior”

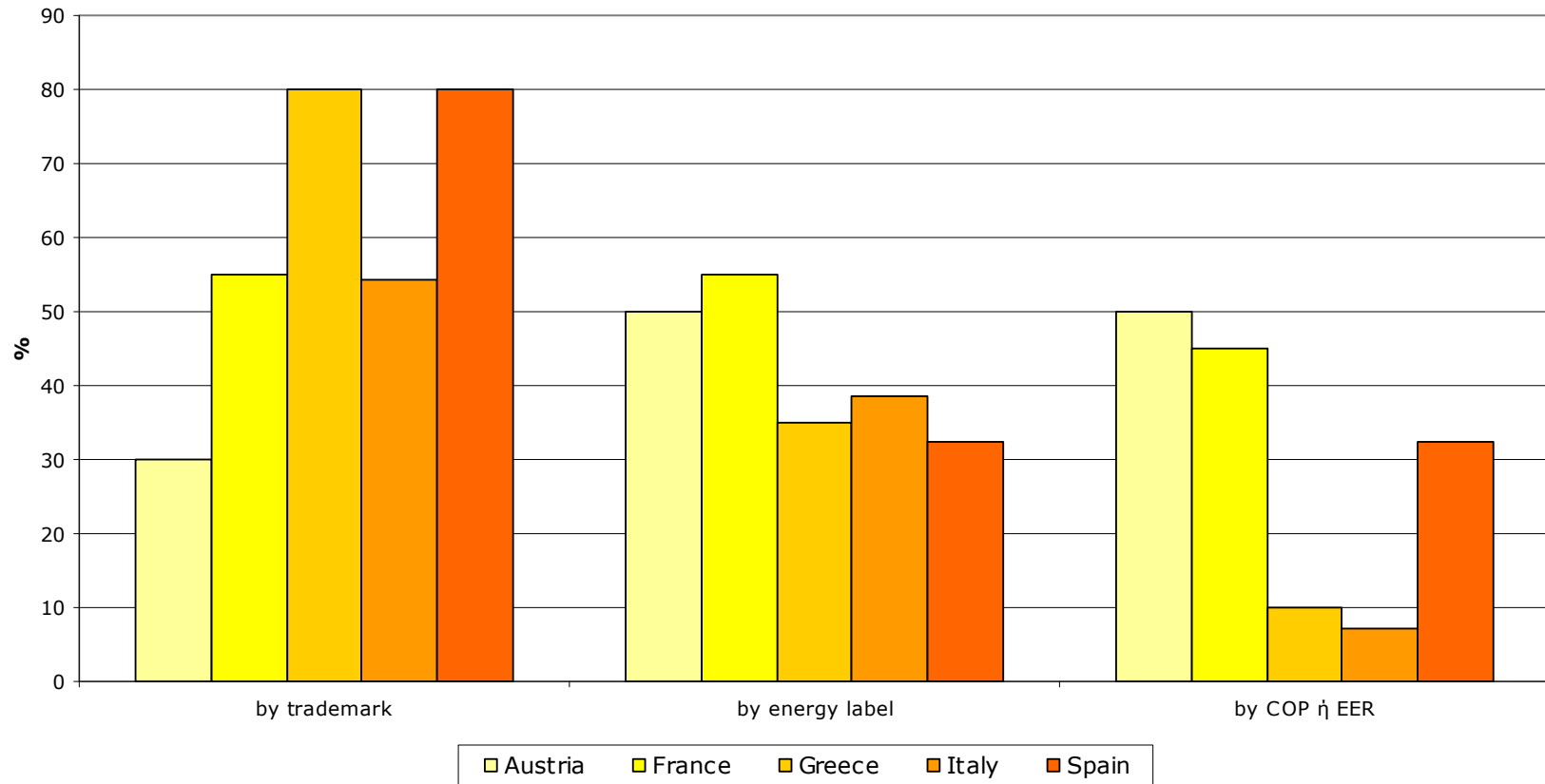
• **Section B: Consumers Attitude**

- Market share of: energy efficient products, nominal power & operation mode (*quantitative parameters*)
- Product selection based on qualitative parameters such as trademark & energy label
- Awareness on environmental protection, rational use of energy & energy efficiency
- Williness to pay for more efficient, reliable or elegant products

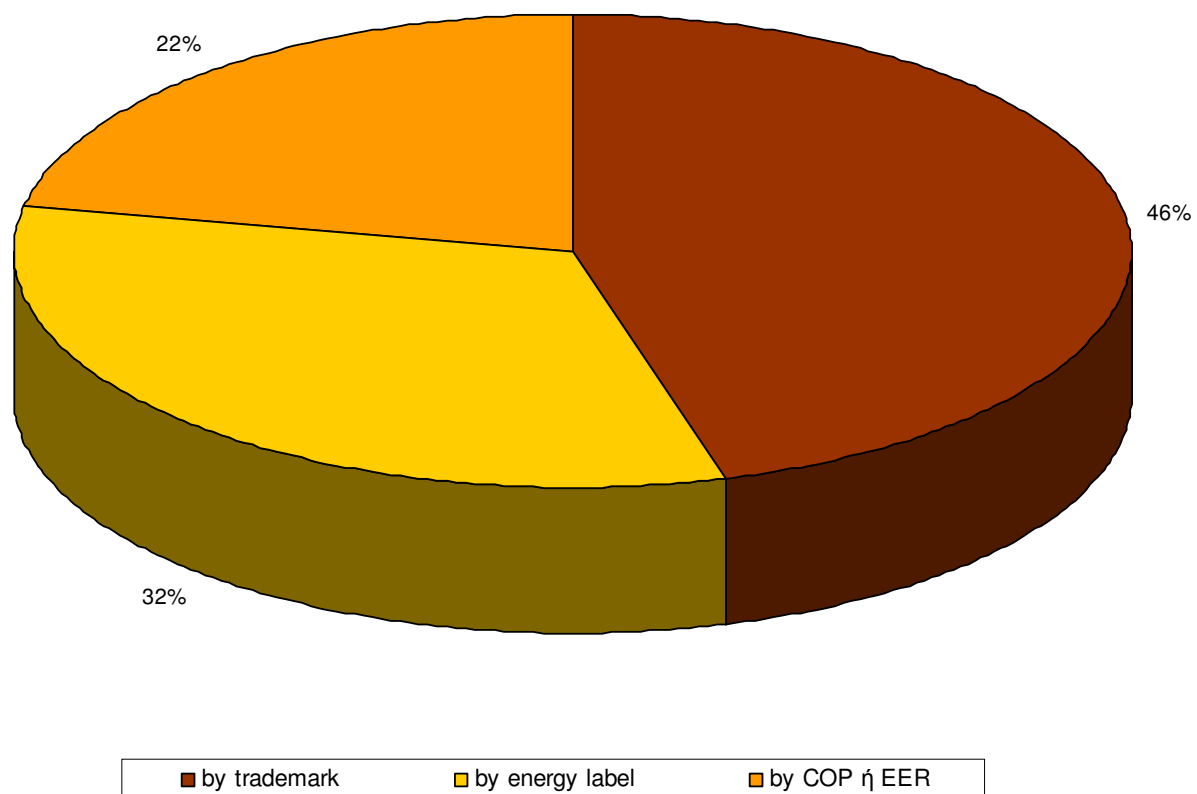
• **Section C: General info**

- Classification of products selection

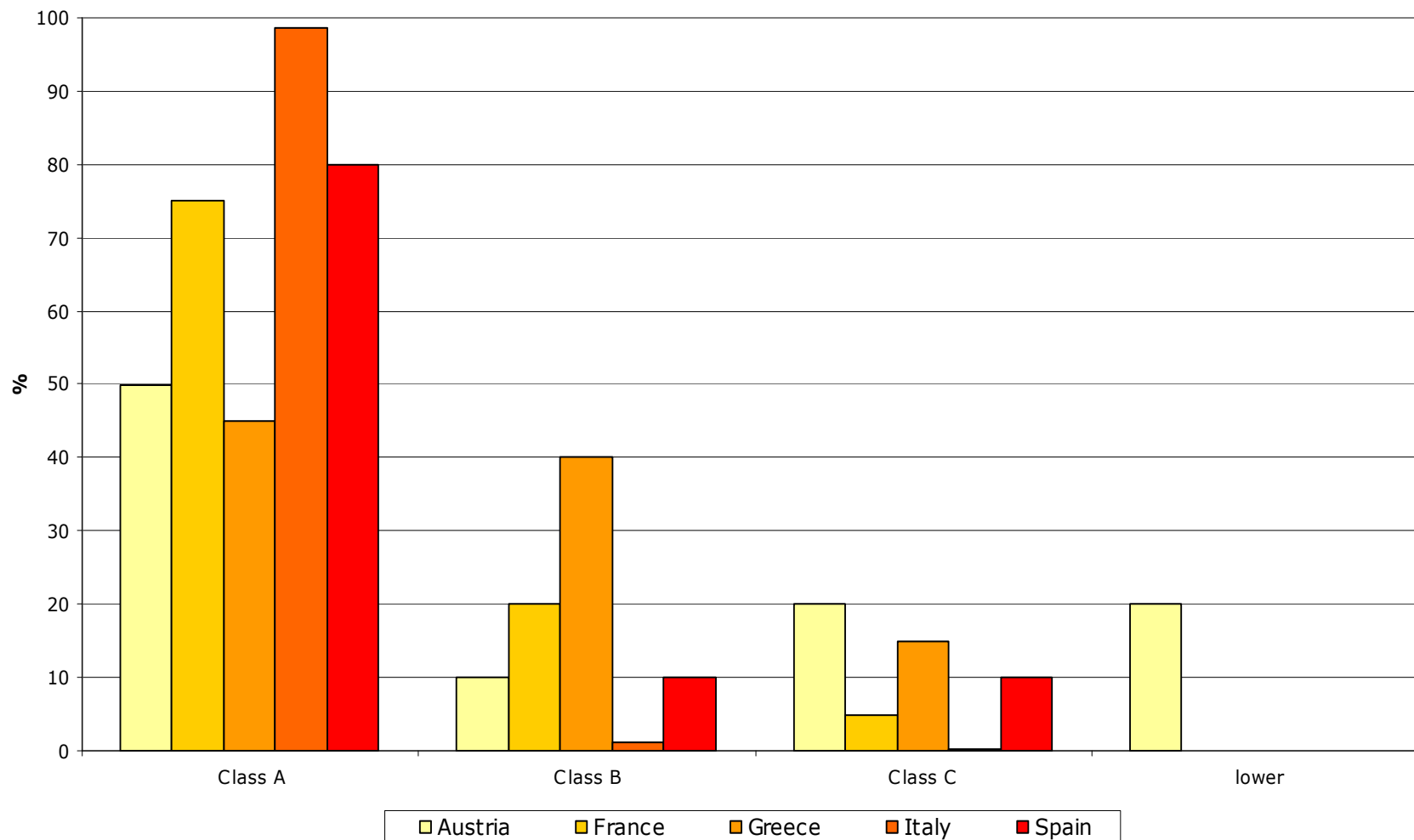
Product selection (non economic criteria)



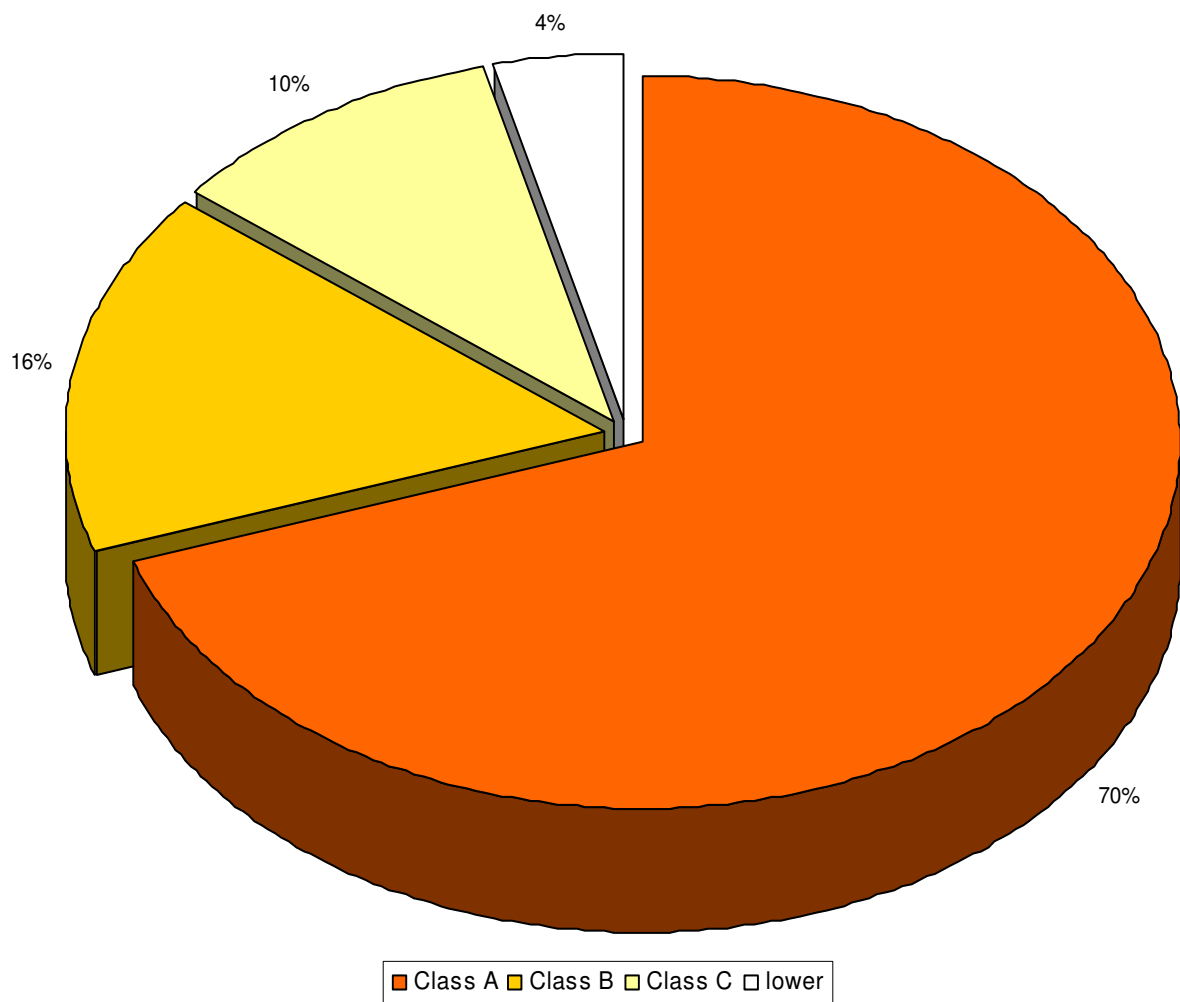
Product's selection based on non economic criteria

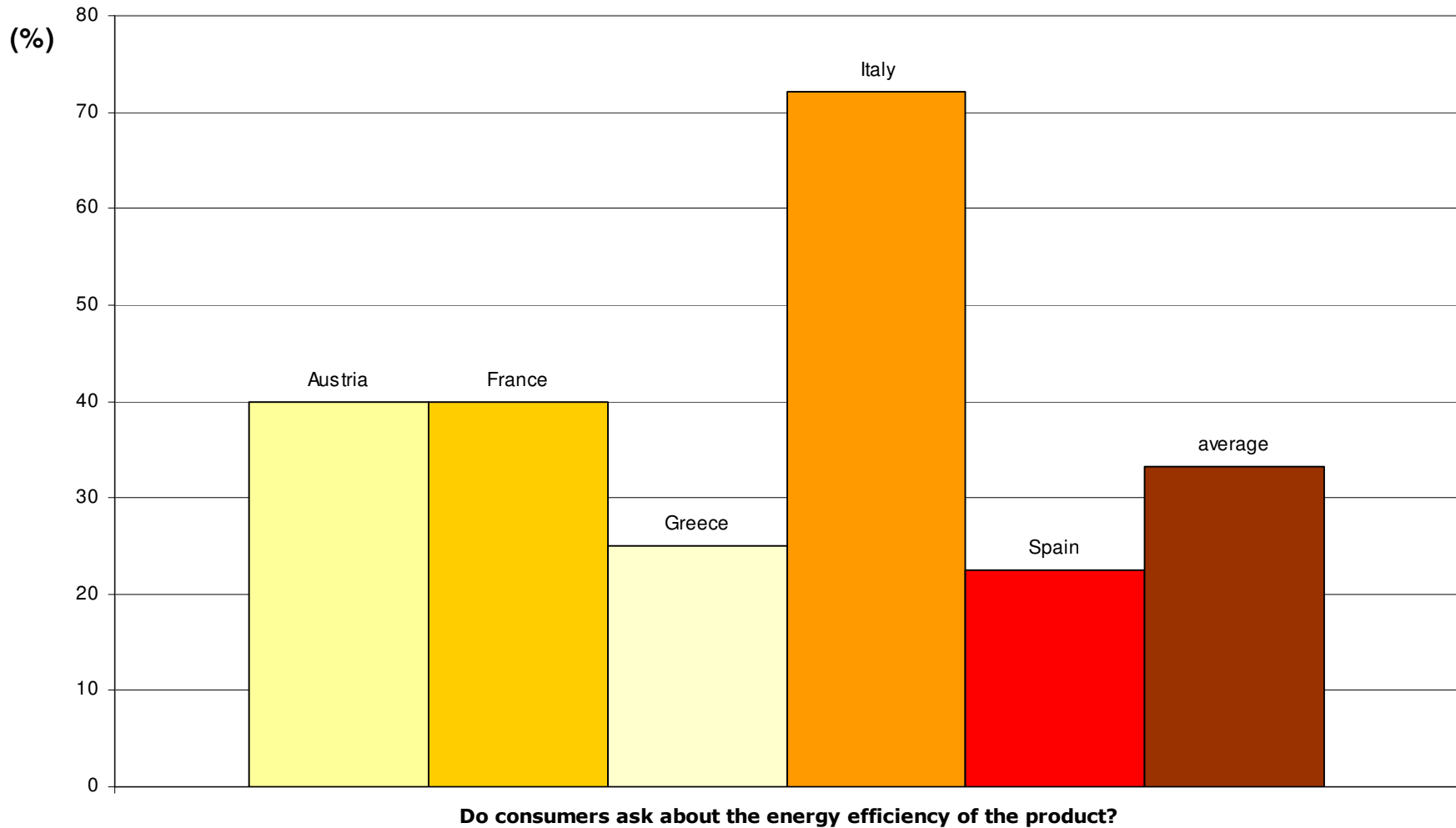


Energy Efficient products sold (split units)

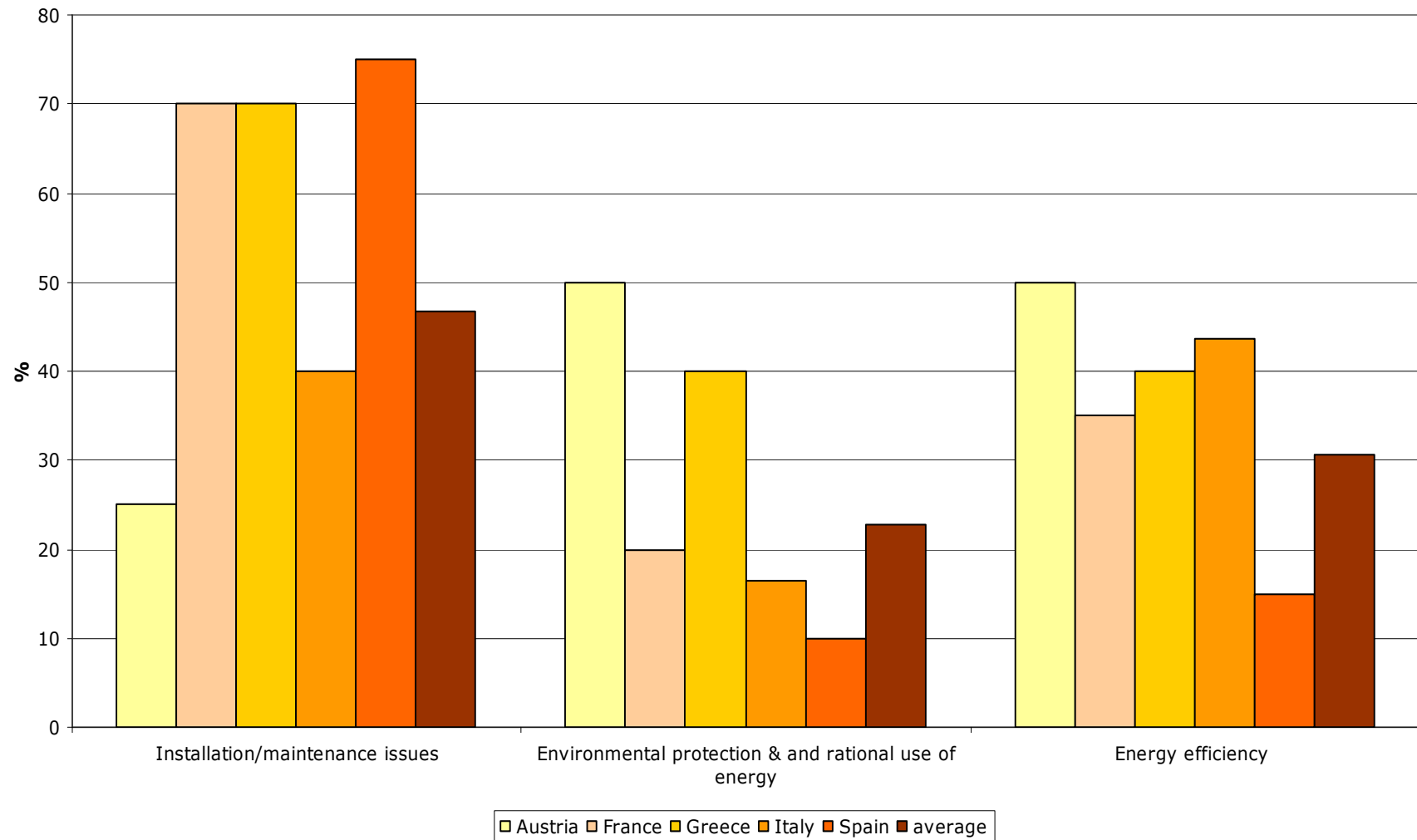


Products sold (split units) in participating countries
Energy Efficiency Classification

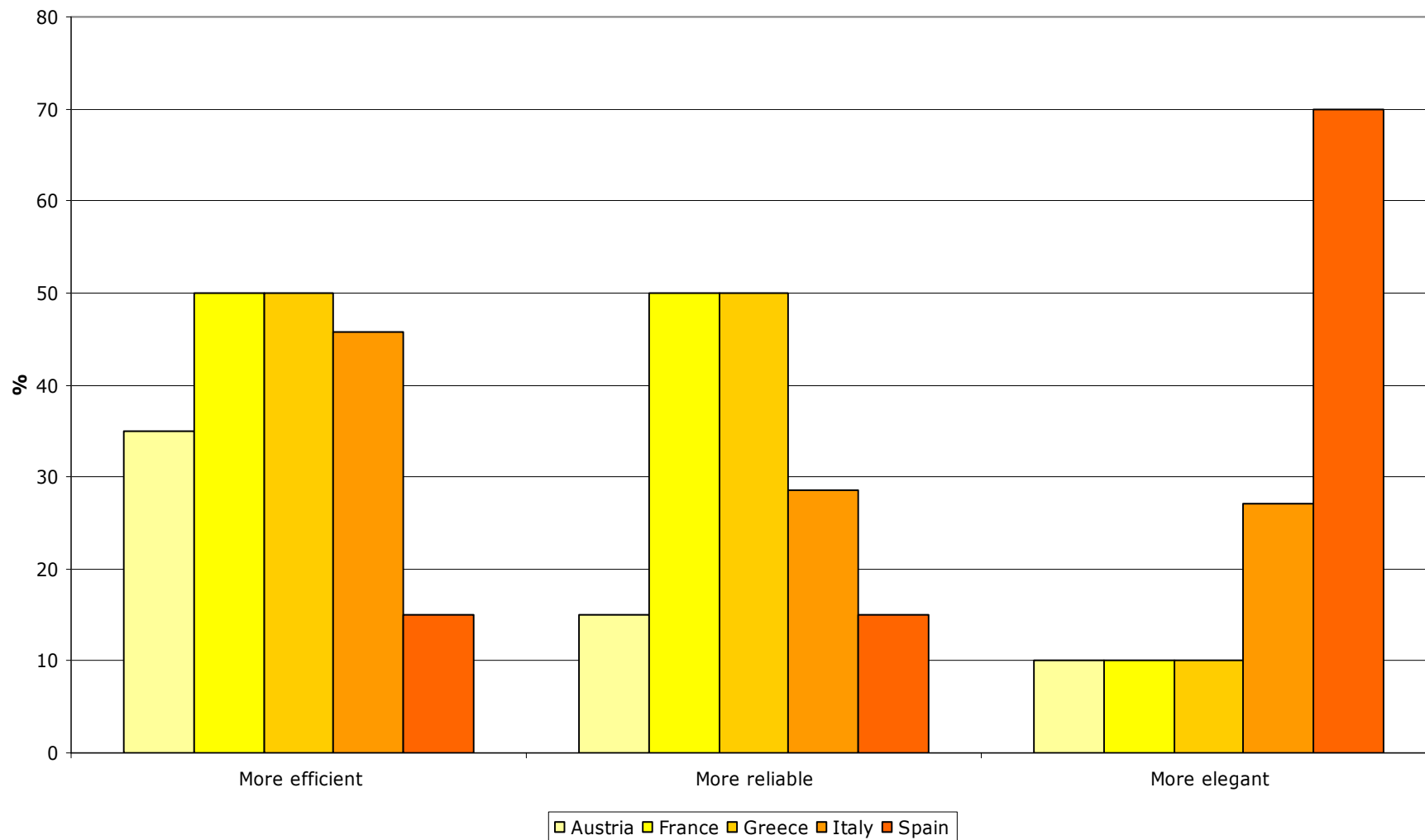




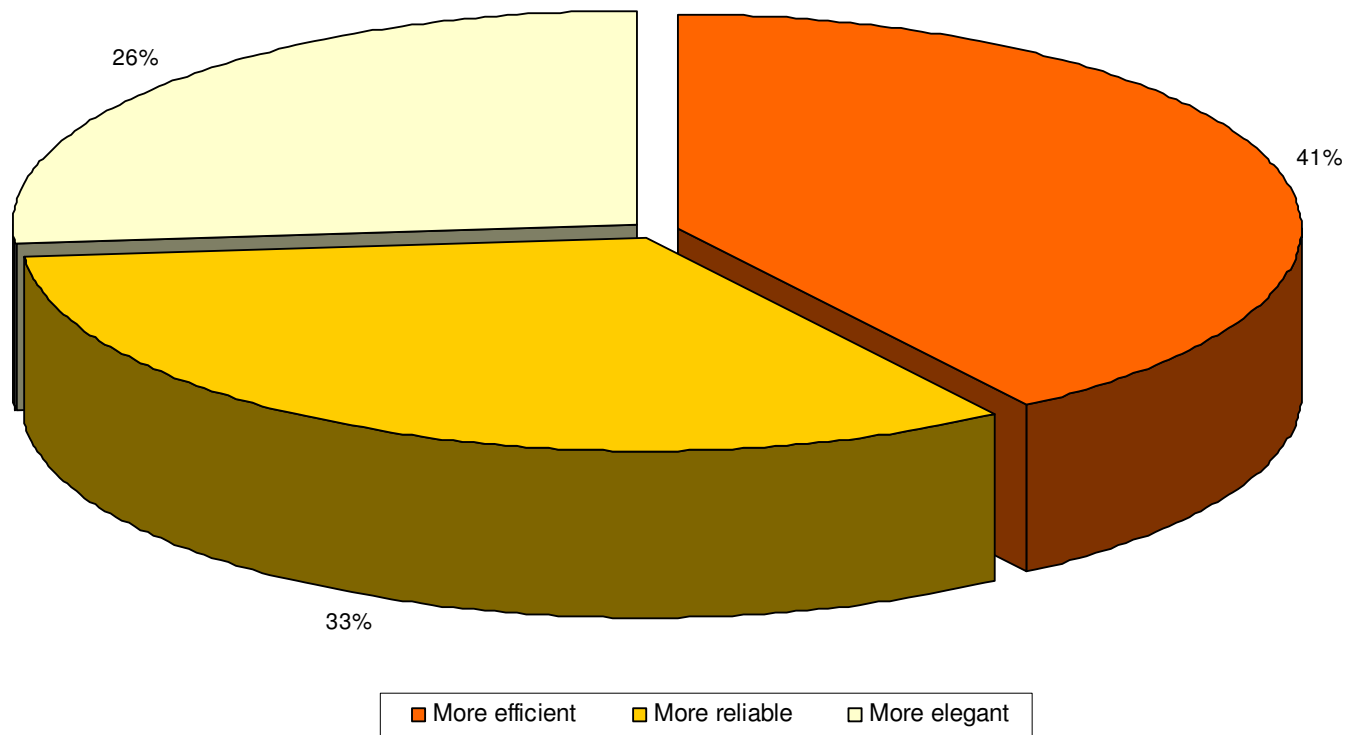
Consumers Awareness on



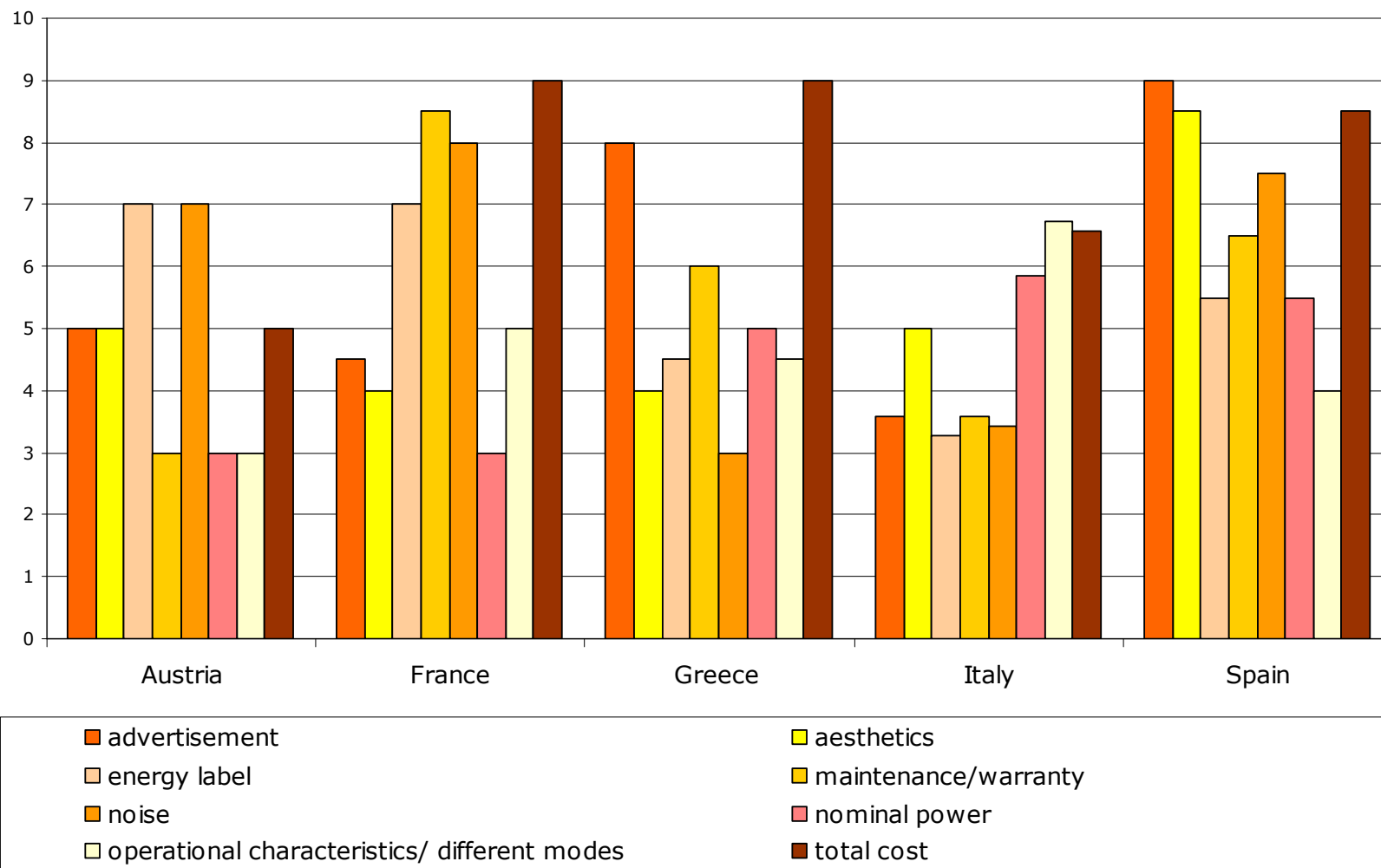
Consumers wiliness to pay for a system....



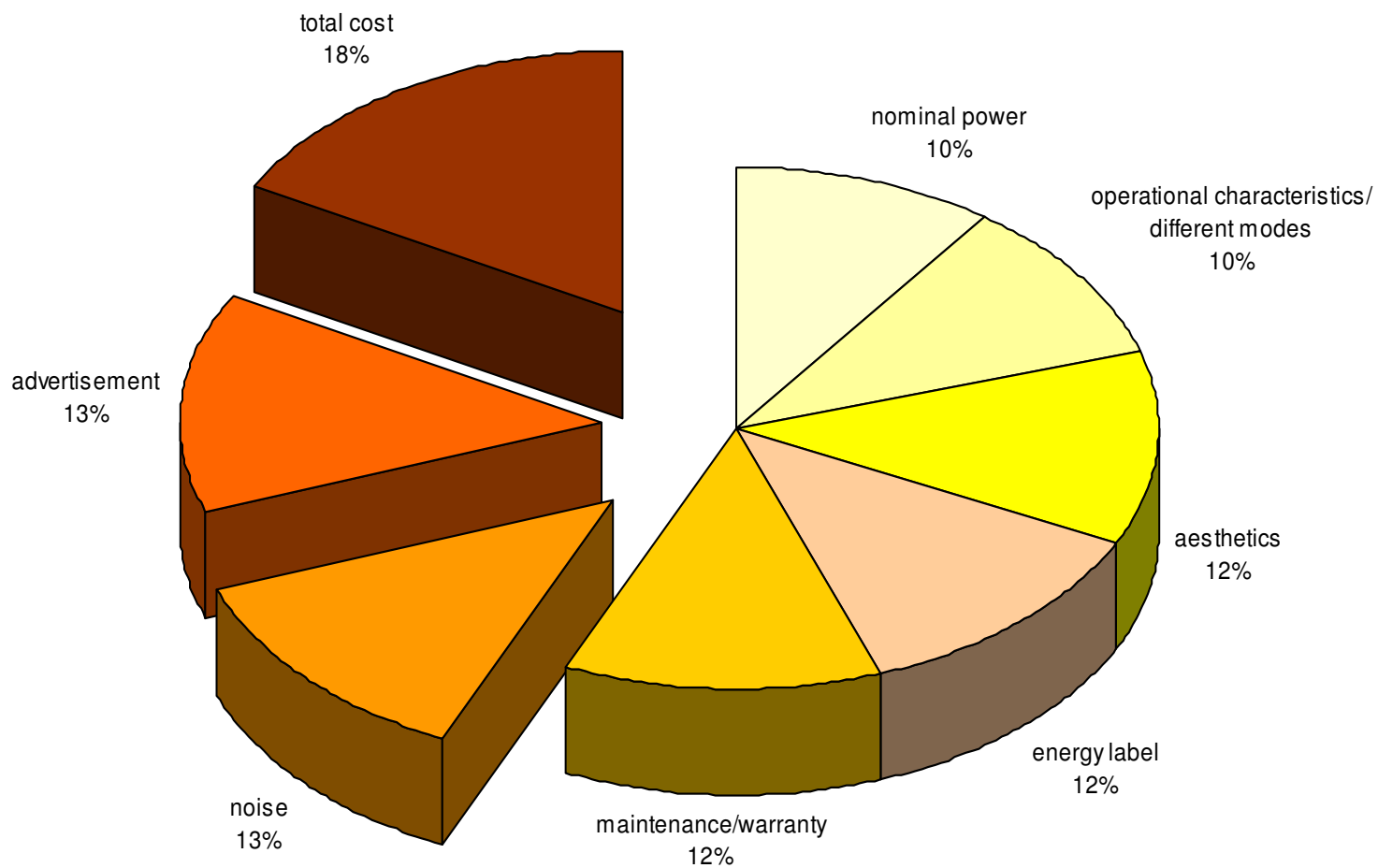
Willingness to pay for a product....(average)



Classification of product's selection (by country)



Classification of product's selection (average)





Pending Info

(regarding the “questionnaire for consumers attitude”)

- WP2 Phase 1 deliverables (D2.1, D2.2, D2.3) deadline is the ***end of February 2008***
- Input from Germany and Sweden?

Suggested delivery date:.....



remarks

- Significant difficulties to approach & gather information from the retailers (only 1 to 2 questionnaires)
 - Italy is an exception -8 filled questionnaires-
- Including the pending data from the consumers attitude might have an influence on the conclusions
- Consumers show (so far) a significant preference to energy efficient products and almost 75% wiling to pay more for a more efficient and reliable product.
- Trademark & advertisement (promotional campaigns) seem to be very effective on consumers selection.