

**FINDINGS FROM INDUSTRY SURVEYS:  
SME SUPPORT REQUIREMENTS AND AVAILABILITY OF  
EXPERTS & ENABLING FACILITIES”**

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## SineQuaNet and the ESA SME Initiative

1. The SME Initiative consists in a variety of measures, ranging from funding of technology actions to delivery of Training.
2. SineQuaNet purpose is to complement the range of actions tailored to improve the participation of SMEs in ESA Programmes, and is not in competition with any other activity of the SME Initiative.
3. In particular, being co-funded by the EC, SineQuaNet cannot cover technology development activities of the type of LET-SME, etc.
4. Its main purpose, is to improve SMEs' skills and competences and thus their participation to the space, but also to improve their competitiveness in the non-space market, in order to help sustaining their business and limiting their over dependency on space

## PHASE-A CONTENT

**WP1: Management**

**WP2: Development and launch of an ESA web Portal for SMEs:** <http://www.esa.int/sme>

**WP3: SineQuaNet Baseline Definition** (review existing Networks, establish cooperation contacts, refine scope for SineQuaNet), Business Model & Logistics, Legal Structure, & Legal Documents & Templates (Status to be presented by (Siemon Smid : later today)

**WP4: Establish SMEs' needs, and compile SineQuaNet Web-based Database** for experts & facilities available to give support to SMEs

**WP5: Regional Workshops**

**WP6: Industry Space Days** to Foster partnership between SMEs and other actors, exhibit SMEs' technologies, inform them on market trends & business opportunities, etc.

**WP7: Support to Leiros (F)** (to validate a S/W tool of LEIROS, see dedicated presentation)

**WP8: Support to HOS Technik(A)** (To help HOS Technik specifying and optimising the production process of their additives and catalysts, and assess the use of the products for space. See dedicated presentation for details)

**WP9: Training to be delivered to some 120 engineers, in June 2007**

## Web based SineQuaNet SURVEYS

1. QUESTIONNAIRE A TO IDENTIFY “SMES NEEDS”
2. QUESTIONNAIRE B TO IDENTIFY SOURCES OF SUPPORT: *EXPERTS, TRAINING, ACCESS TO FACILITIES*

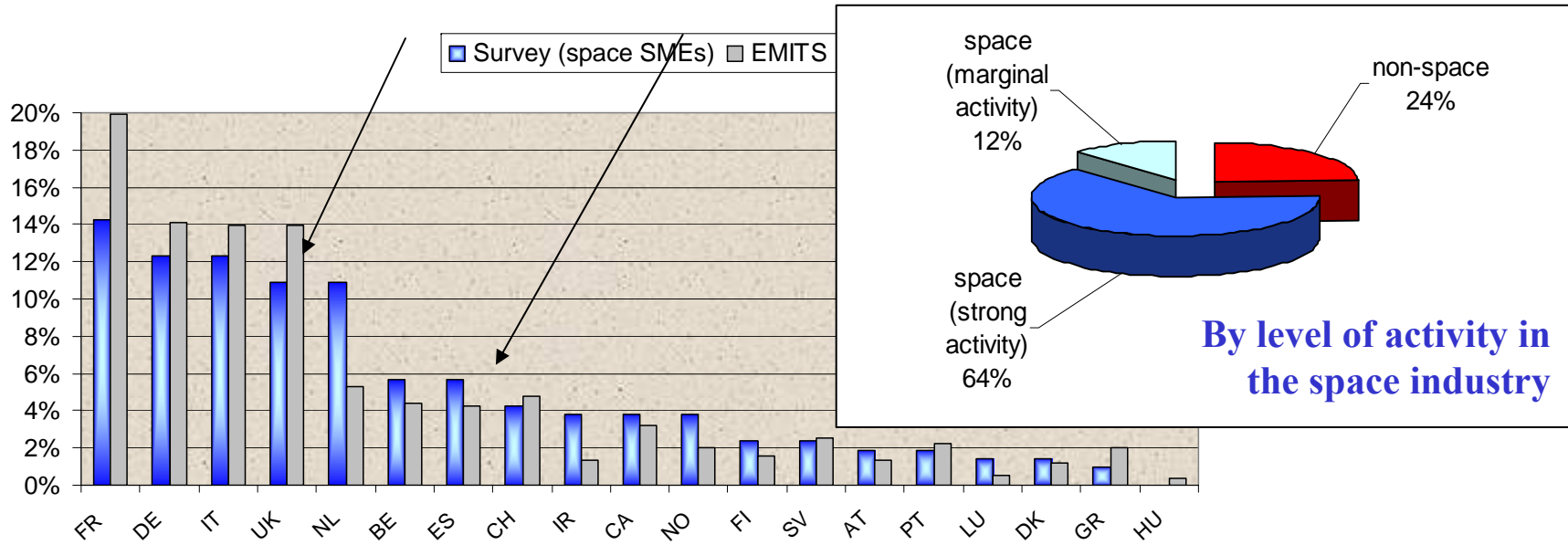
## QUESTIONNAIRE A: *SMEs' NEEDS*

Web based survey conducted during spring 2006:

- **Profile of respondents (activity sector, quality standards, etc.)**
- **Target market(s)** for which the expert support will be used
- **Needs for Space engineering** support (hands-on expert support)
- **Disciplines and/or Technologies** associated with space engineering needs
- **Needs for Project management** support (hands-on expert/Training)
- **Needs for Space product assurance** support (hands-on expert/Training)
- **Needs for access to calibration & test facilities/services**
- **Needs for Training**

**279 responses (useable, from 320 received), attitude measurement” class of survey: for 95% confidence level of results, statistical precision :  $\pm 5.9\%$**

# RESPONDENT DEMOGRAPHICS

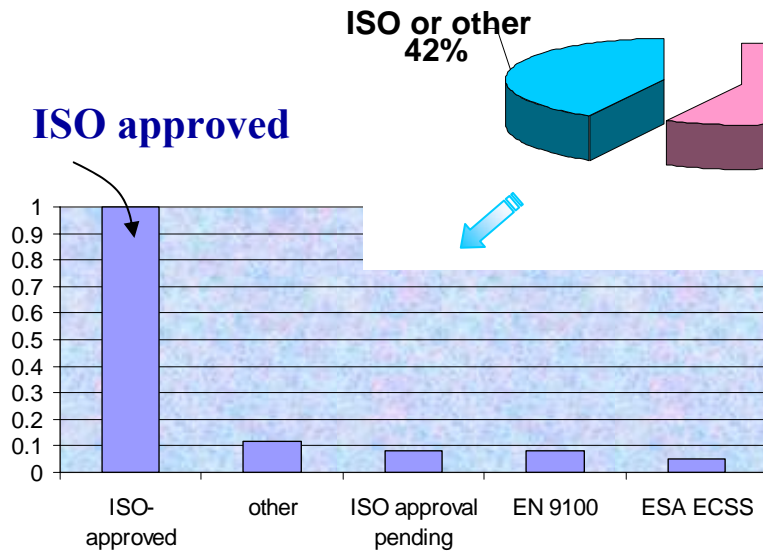


## Assessment of sample representativeness against ESA Potential Bidders list

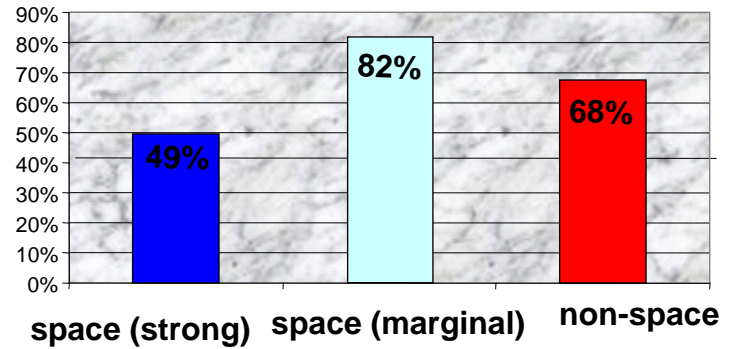
# ECSS and other Standards

Qu.: « To what quality standards is your company approved? »

Approval to International Quality Standards



no quality assurance standard, by category

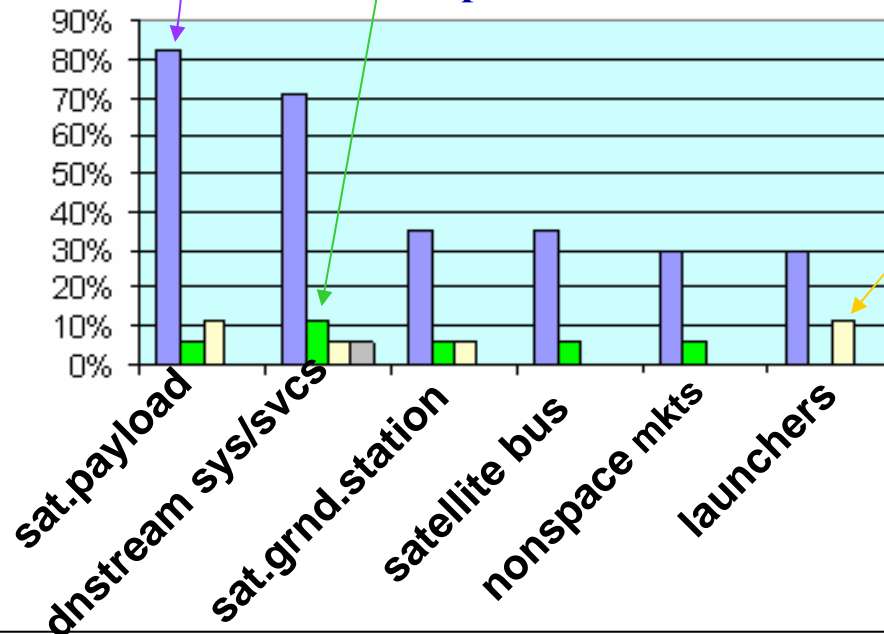


# How will expert support help your company ?

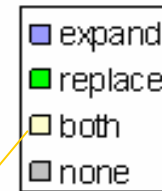
Example: SMEs with a marginal space activity

Expand business  
Into new markets

Replace existing  
product

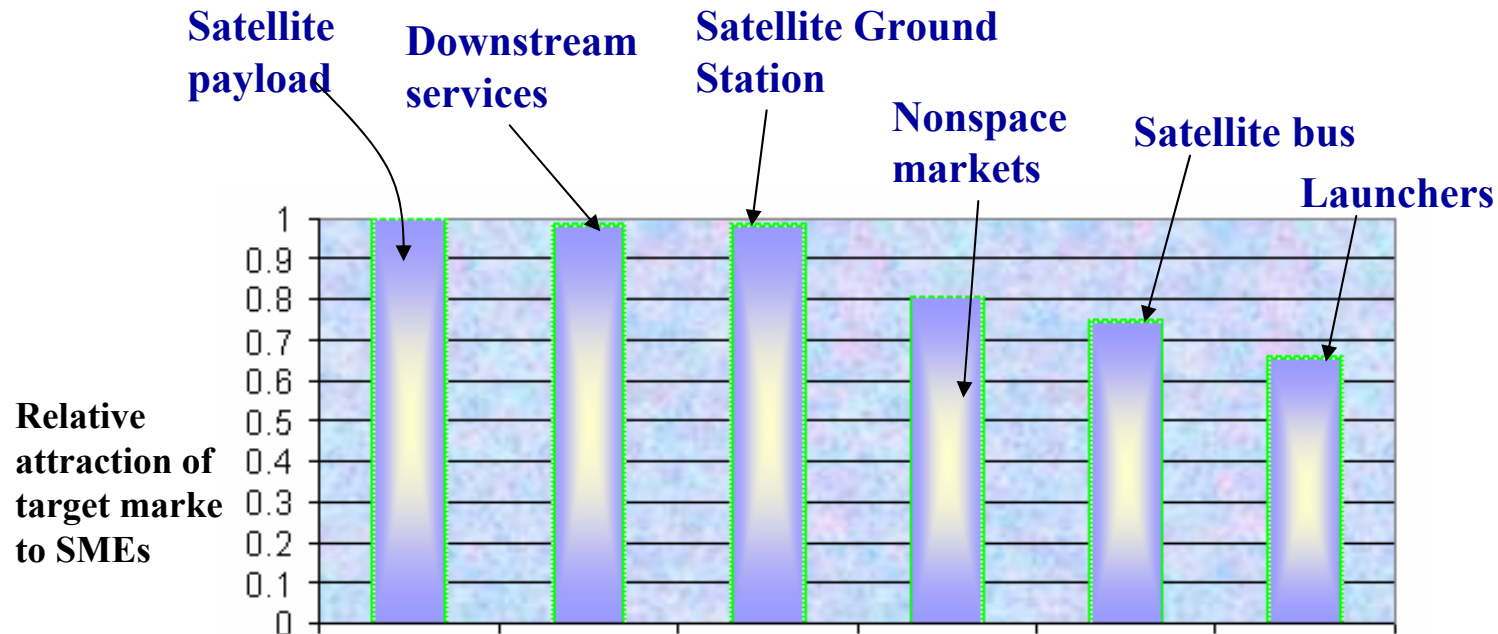


Benefits expected  
from support



Dominant expectation =  
“expand business into new  
markets”

## The target markets for expansion

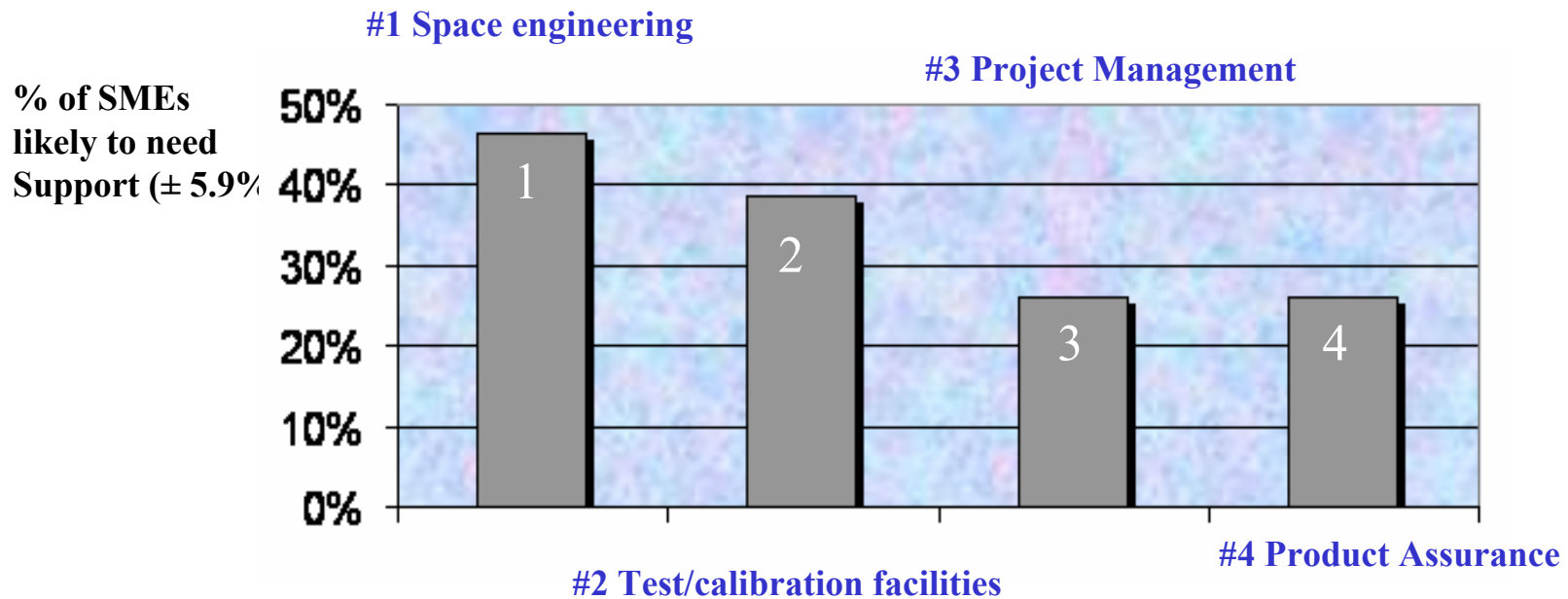


All SMEs=strong + marginal + no space activity

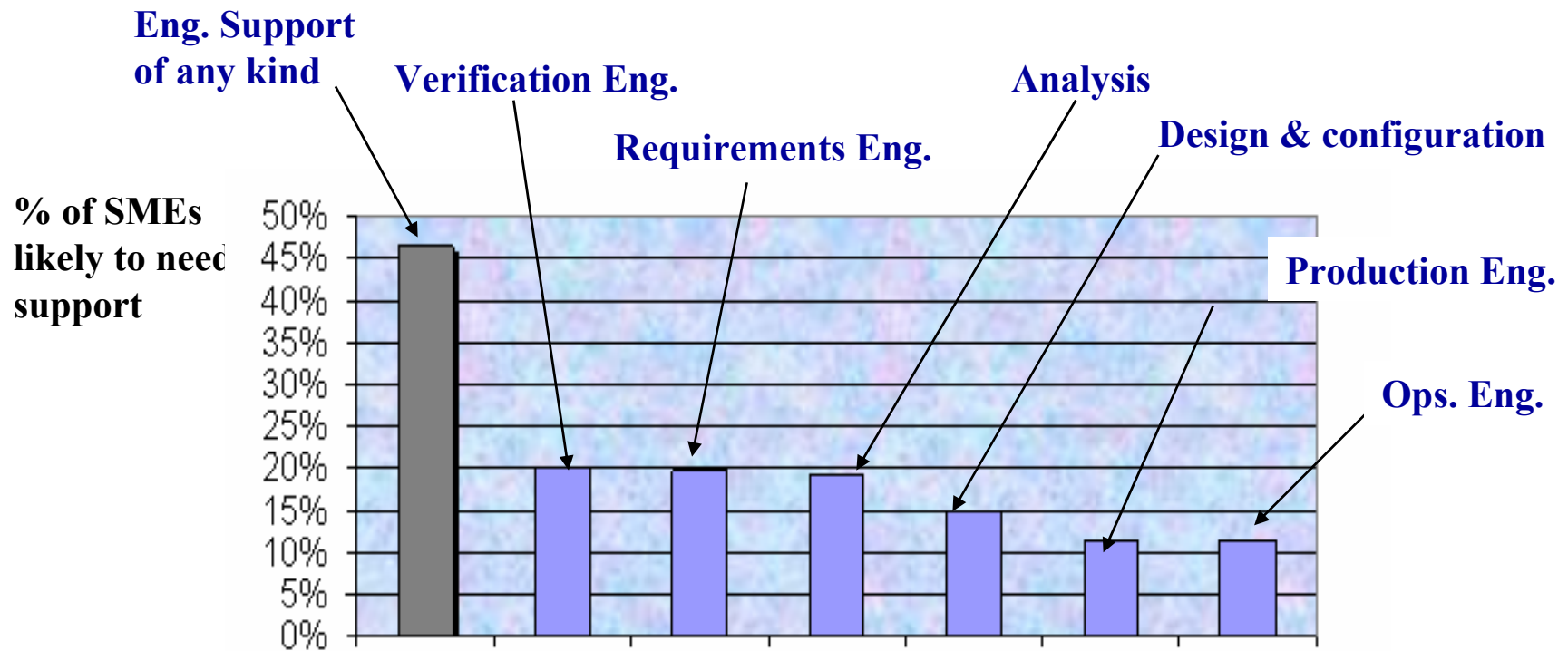
Nearly 60% of the SMEs intend to use the support for business development

# An overview of priorities

As defined within the survey questionnaire

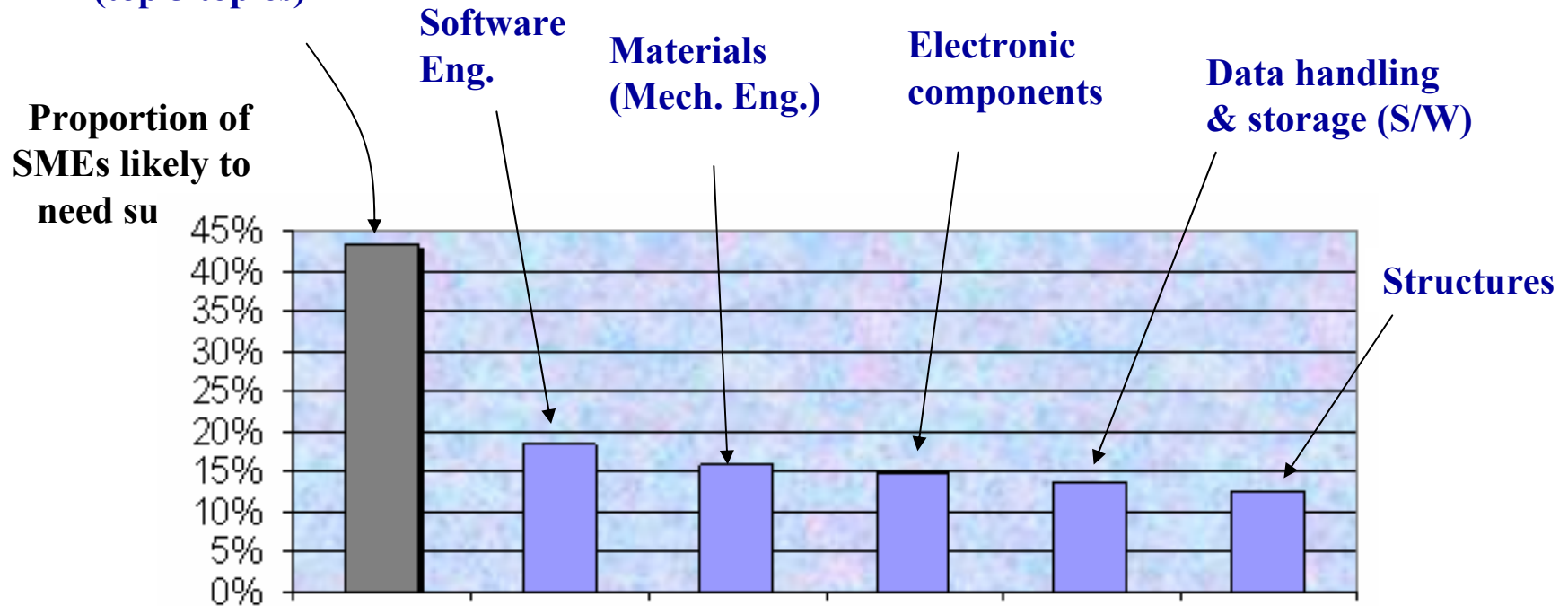


**SMEs' priority #1 : space engineering**



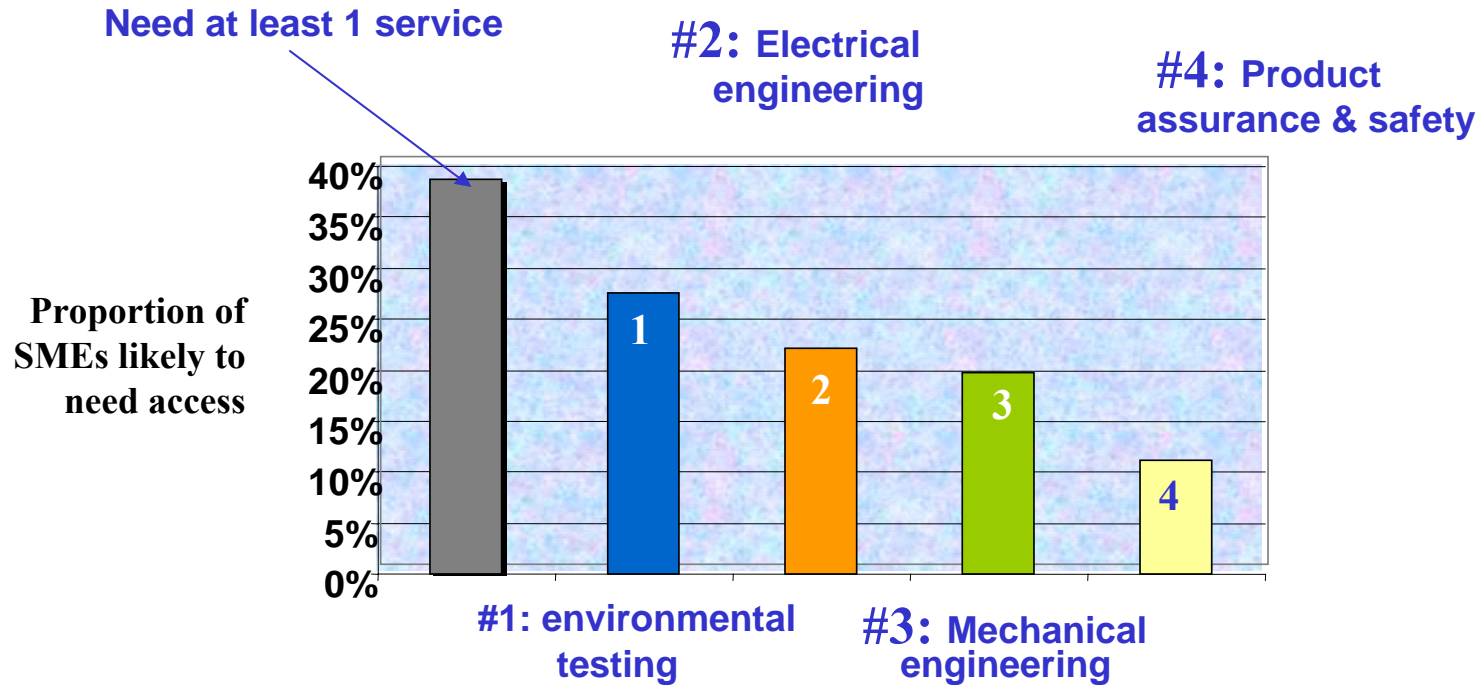
# Engineering support in specific fields

**“Eng. Support  
(top 5 topics)**



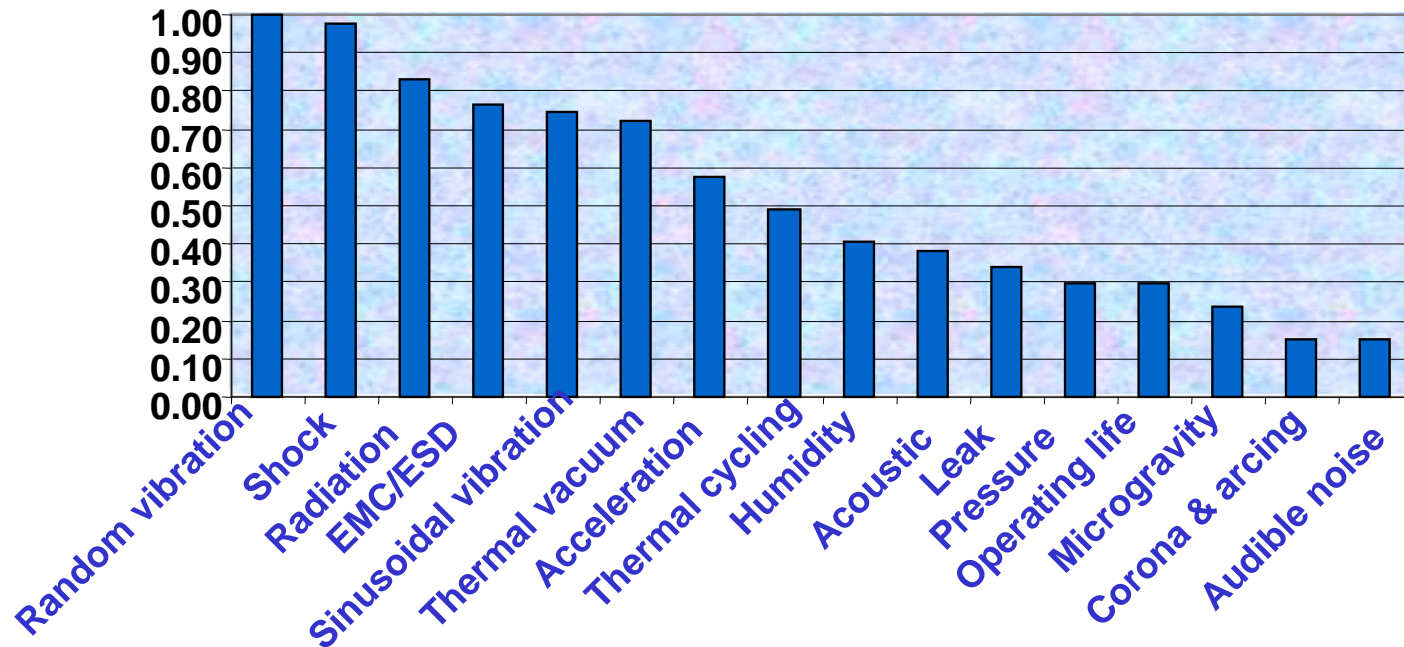
## Priority #2 : test/calibration facilities

by Category of Facility

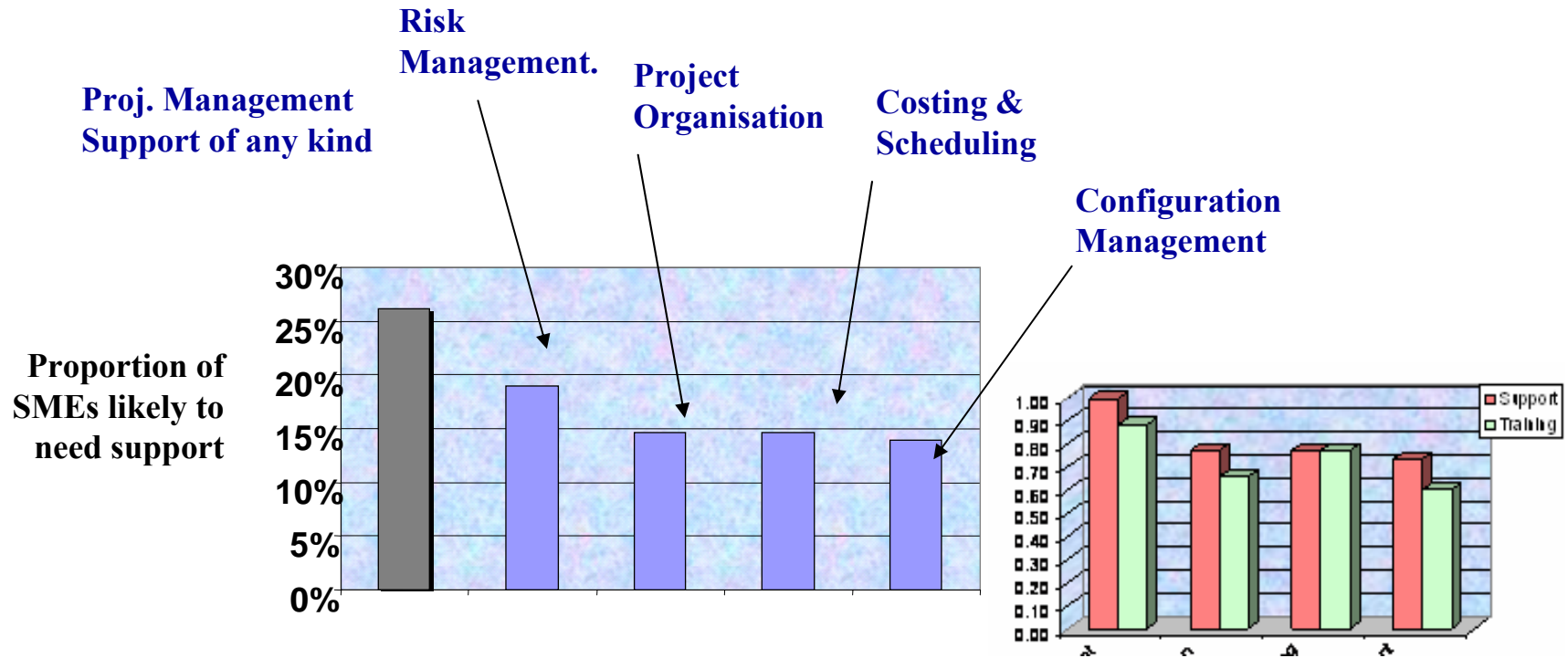


**Priority #2 : test/calibration facilities**

**Details for Environmental testing**



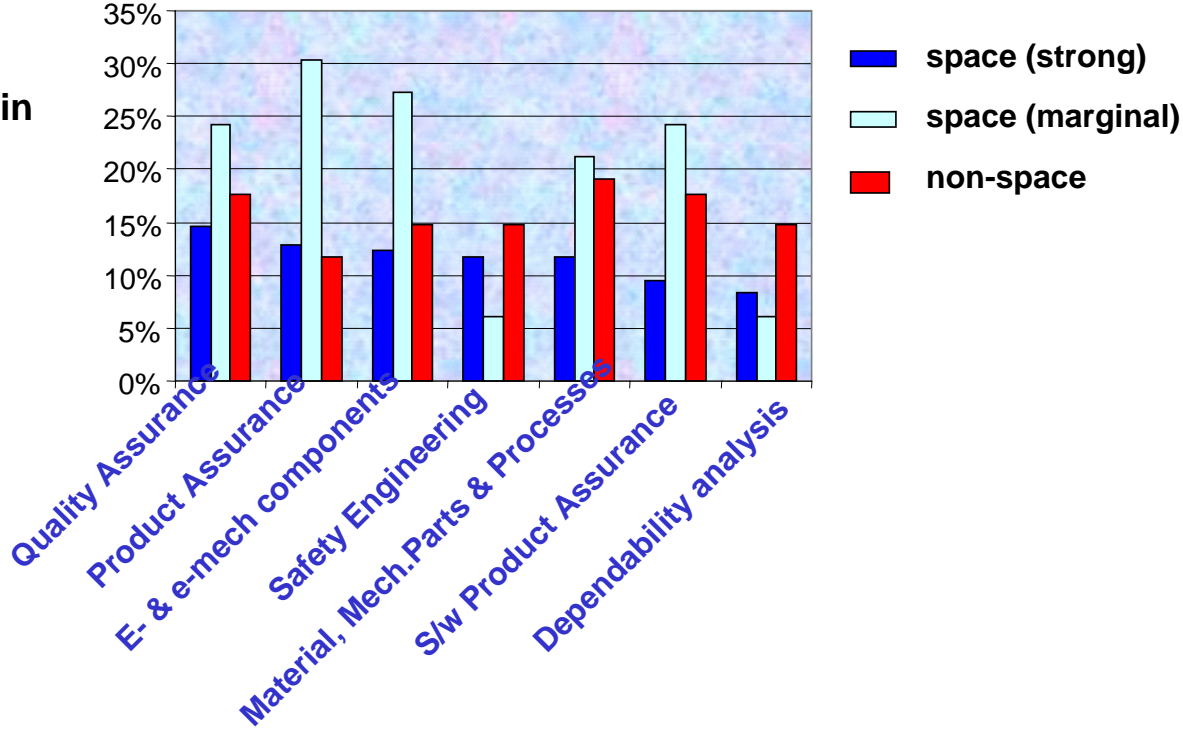
# Priority #3 :space project management



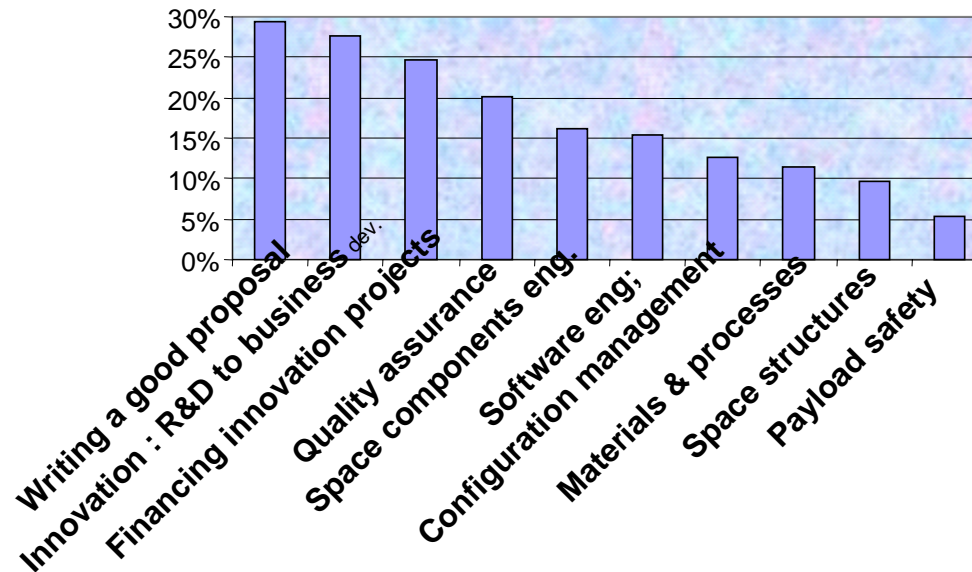
Hands-on expert support?  
or Training?

**Priority #4 :space product assurance**

Level of need  
(as % of SMEs in  
each category)



## SMEs' needs for training



**Top 3 courses identified as being most useful:**

1. “writing a good proposal” (in demand by 30% of SMEs)
2. “innovation : R&D to business development” (in demand by 28% of SMEs),
3. “financing innovation projects”
4. 15% SMEs with a strong space activity identified training in space product assurance as a need

## Other SMEs' needs

Not specifically defined in the questionnaire.

Question answered by 154 SMEs, by filling in a free box, using their own words.

Partnership and Business development:	16% of SMEs
Legal Support (including Licensing):	3.2% of SMEs
Mentoring	3.2% of SMEs
Needs for funding:	2.6% of the SMEs
Standardisation:	1.3%
Technology transfer:	1.3%

SineQuaNet meant to support in space project engineering processes & management

**but was not meant to help with Partners search; Funding, Mentoring, etc.**

## QUESTIONNAIRE B: SOURCES OF SUPPORT : *EXPERTS, TRAINING, ACCESS TO FACILITIES*

- **What are your main space product markets?**
  - \* satellite payload;                      \* downstream systems & services;
  - \* satellite ground stations;       \* satellite bus;                      \* launchers ....
- **Can you provide support** (expertise, or training)? in :
  - ♦ Space engineering ♦ Project management ♦ Space product assurance
- **Can you provide access to calibration & test facilities ?**
  - - what's the % availability in a typical year?

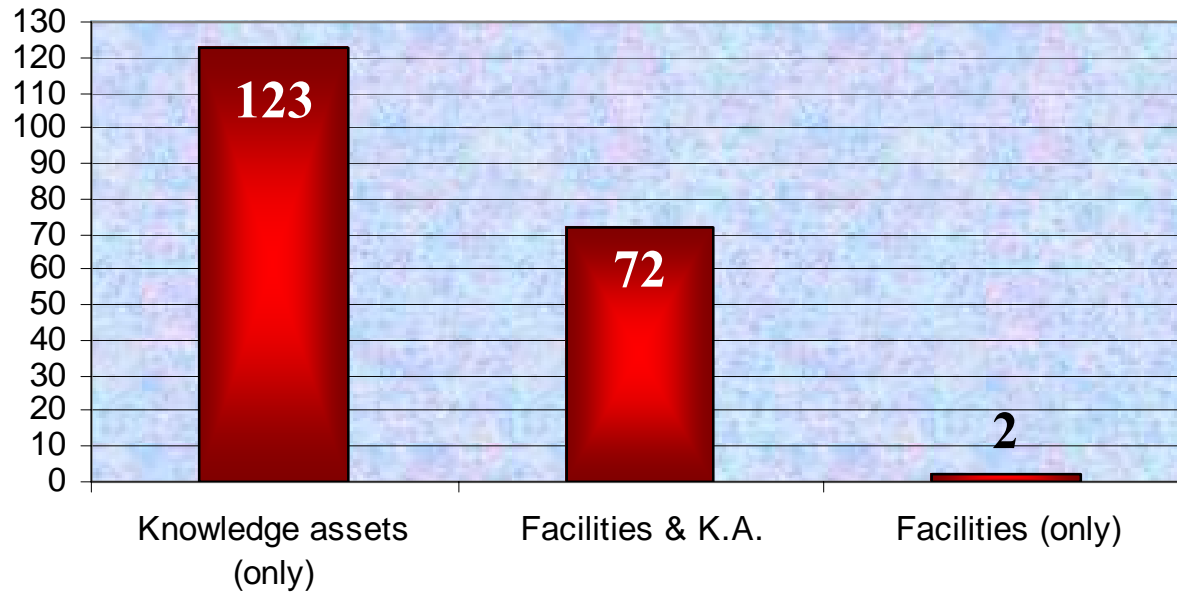
**197 responses** (relevant @ 30th June 2006, from 255 received) :  
**SMEs (122), Large Enterprises (28), Research Institutes (47)**  
62%                      4%    24%

## Responses : Knowledge Assets, Access to Facilities

Knowledge Assets= Expertise, Training

# of  
Responses  
In  
Database

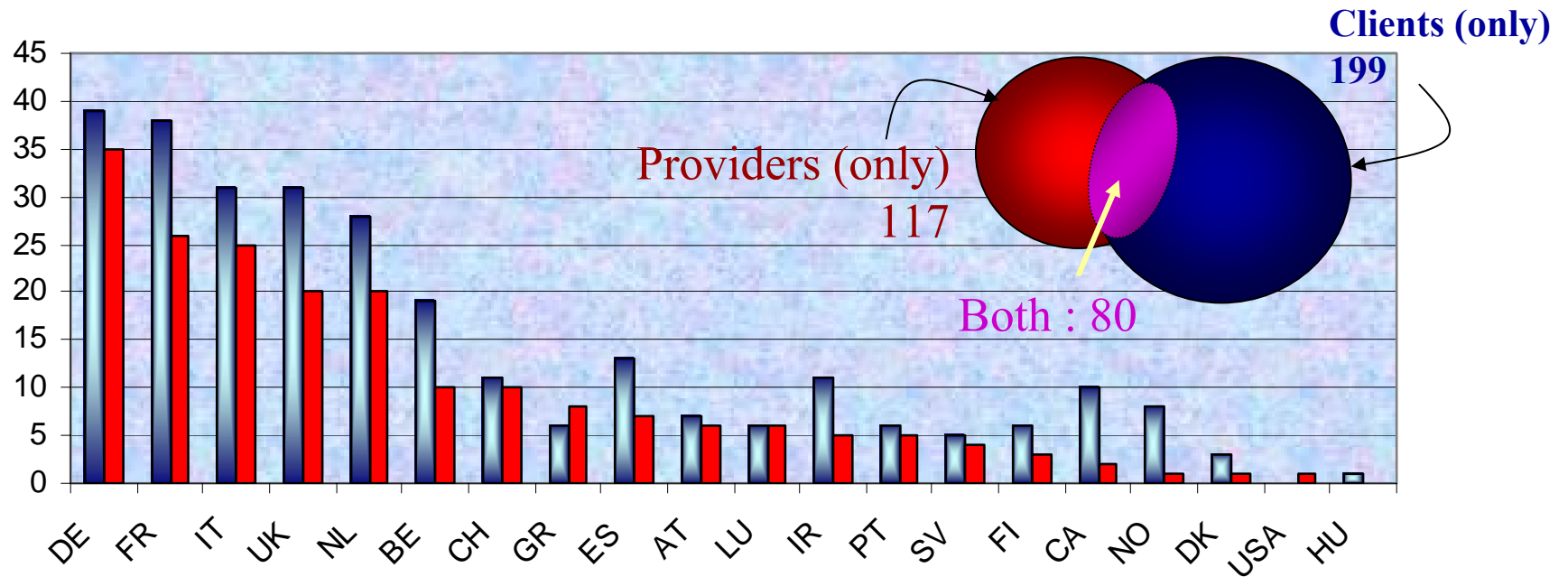
197 Total  
@ 30/6/06



NB: 1 response  $\neq$  1 'unit of supply'

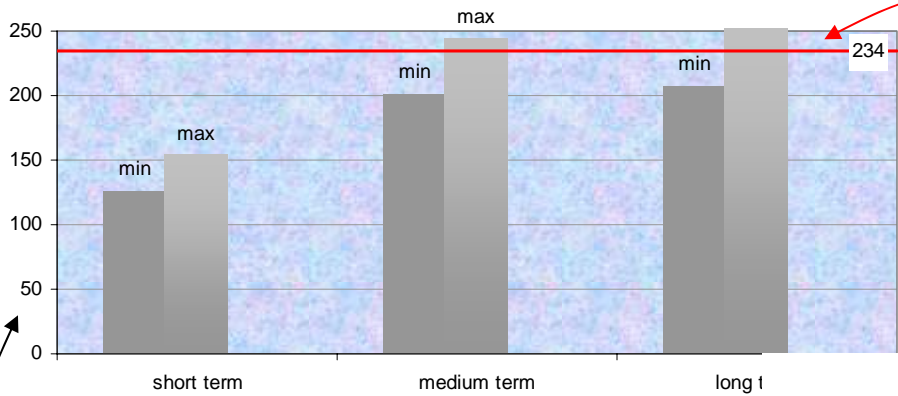
# Clients & Providers : Respondent Demographics

Distribution of respondents by country, clients v. providers of SineQuaNet support



# ADEQUACY OF SUPPLY : *EXPERTS*

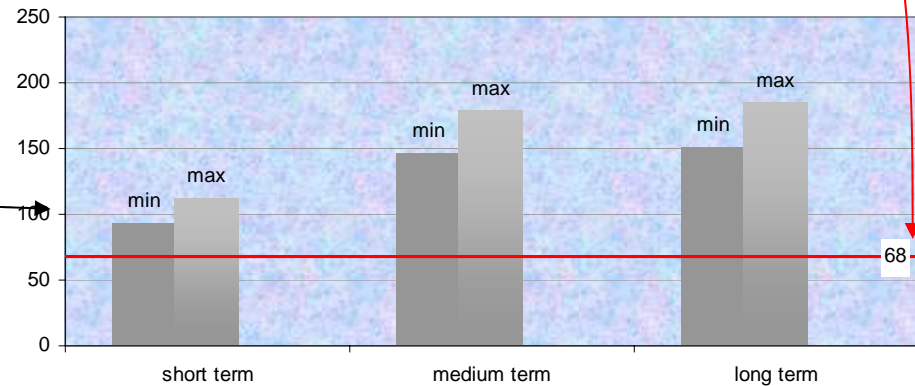
## Verification engineering process support



(est.) Annual units of supply (expert assistance), based on entries currently in the database

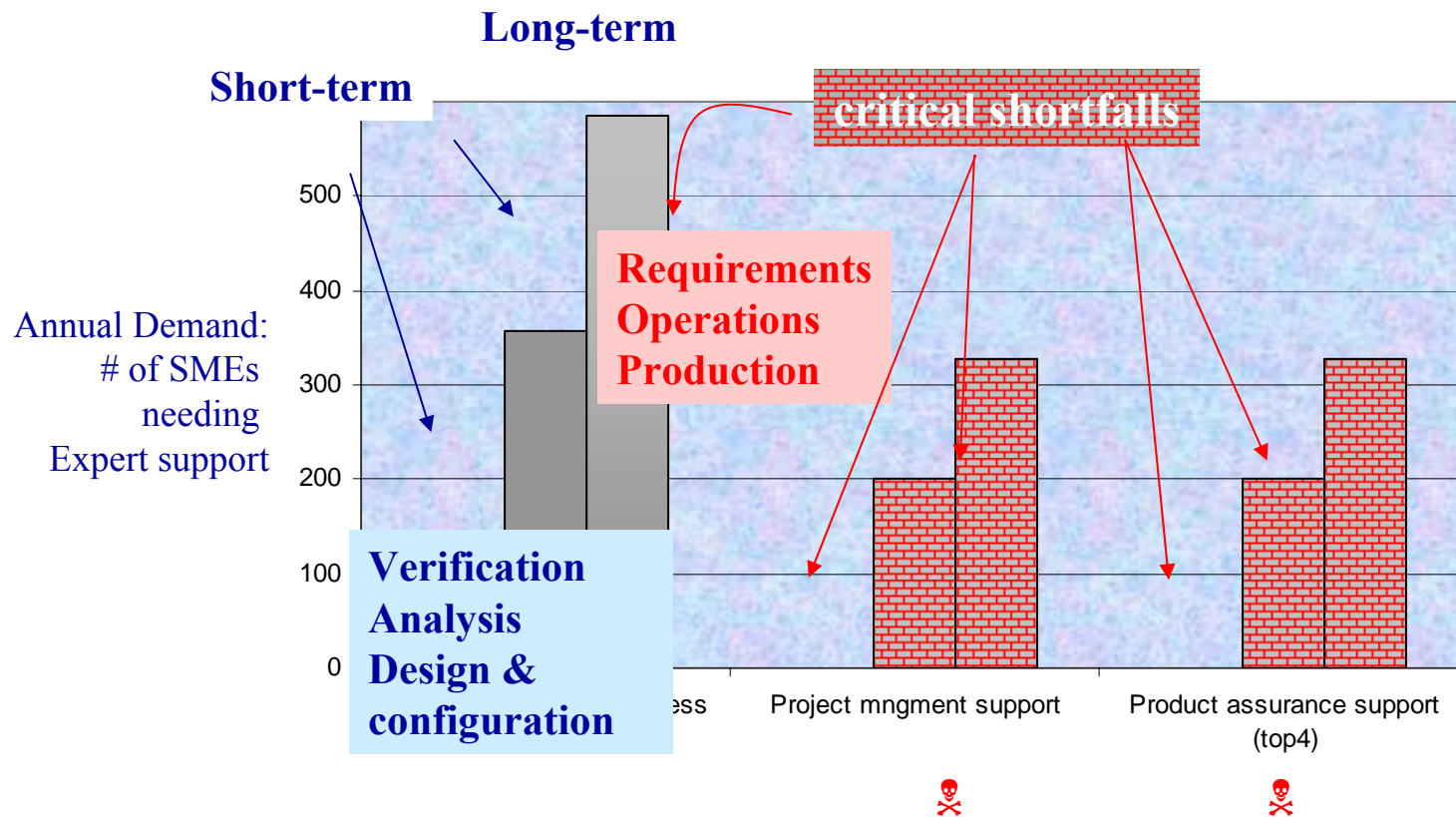
## Product assurance support

Supply v. Demand : Product Assurance Expertise



Annual Demand: # of SMEs for assistance from experts

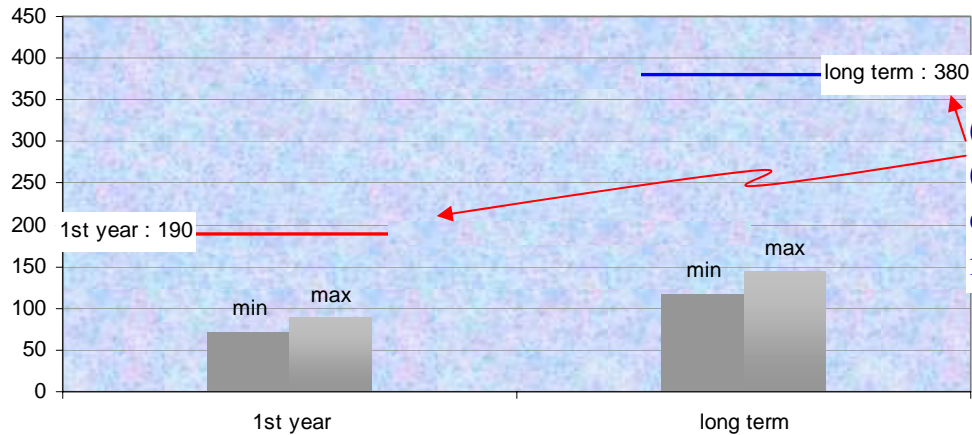
# ADEQUACY/SHORTFALL OF SUPPLY, cond:



# ADEQUACY OF SUPPLY : TRAINING

## Product assurance support

Annual Demand:  
# of SMEs  
for assistance  
via training



(est.) units of supply  
(training seats), based on  
entries currently  
in the database

**N.B.: overall preference is for hands-on expert support ...**

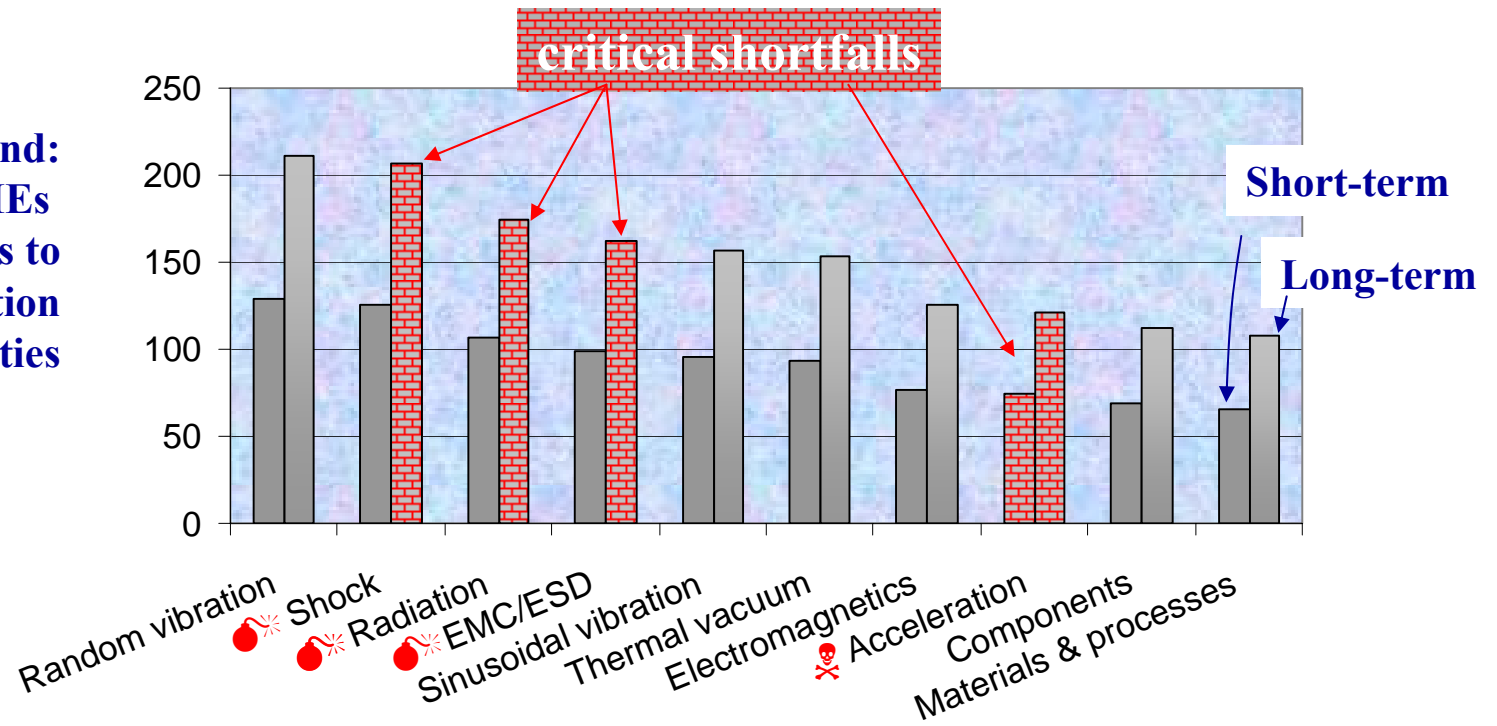
**- but- supply may not meet demand ...**

↳ **Prioritisation policy? (e.g. 1st = ongoing projects, etc...)**

↳ **Fallback = training**

# ADEQUACY/SHORTFALL OF SUPPLY: (TOP 10) TEST/CALIBRATION FACILITIES

**Annual Demand:  
# of SMEs  
needing access to  
Test & Calibration  
Facilities**



## ASSESSMENT BASED ON CURRENT SOURCES

### Hands-on Expertise:

- 💣 long-term shortfall in all engineering know-how topics
- 💣 **critical shortfall**, long-term: requirements, operations, production eng.
- 💀 **critical shortfall** short & long term, in
  - ‘project management’ &
  - ‘product assurance’ support

### Access to Test & Calibration Facilities:

- 💣 long-term shortfall in some ‘environmental testing’ areas,
- 💀 **critical shortfall**, short & long term, in ‘acceleration testing’

### Training:

all topics : supply generally exceeds projected demand  
surplus = fallback : demand for hands-on experts => training