

3rd tier and smaller Companies in the Aerospace supply chain

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Smaller Suppliers in Aeronautics

- **Technical supplies acquired by 1st tier Companies from smaller enterprises are in the range of 9% of product**
- **Supplies to 2nd tier companies are well above that dimension, over 30%**
- **Weight of 3rd tier suppliers and smaller companies accounts for nearly 20% on product cost**
- **Their activities range from pure production to specialty consulting and to design support**
- **Our focus: 3rd tier suppliers (typically without direct risk sharing agreements, and/or with less than 1,000 employees)**



Gathering needs and characteristics

- **Needs and requirements derived from:**
 - previous EU RTD projects focused on smaller aeronautical companies (CEPRA, CASH)
 - Virtual Enterprises focused RTD projects (VIVE, ARICON)
 - results of SCRIA (Supply Chain Relationships In Action) initiative of SBAC (Society of British Aerospace Companies)
 - ICE 2005 workshop
 - responses to a questionnaire disseminated to suppliers in the Alenia and Airbus supply chain and to companies members of British and Spanish aeronautical associations
- **Questionnaires used also to derive specific characteristics of 3rd tiers**



3rd Tier Suppliers' Features

- **Mostly dedicated to aerospace (civil and military), >80% revenues**
 - market peculiarity
- **Mostly national market**
 - some personnel exposure through international Work Groups
 - Apparently limited stimulation to foreign markets
- **Sensitive to growing competition on costs**
- **Quite stable client list**
 - Static market
 - Perceived maturity condition
 - Smaller companies can hardly access new foreign markets without delocalising



3rd Tier Suppliers' Features (cont.)

- **Growth speed apparently reducing with dimension, with a parallel increasing interest toward different markets**
- **Very often focusing company evolution toward offering of more complete/verticalised solutions**
 - strong pressure by customers
 - perceived mechanism for competitive positioning
- **Process change attitude (evolutionary) is not common, particularly for manufacturing suppliers, with minimum rates at 5%)**
- **Extremely low personnel turnover, with average experience up to 15 years**
 - Low expected attitude to continuous innovation
 - Limited appetite to know-how transfer at individual level



3rd Tier Suppliers' Features (cont.)

- **Growing educational level of personnel**
 - most evident in production oriented companies
 - evolution toward more complex processes and higher integration capability
 - low intensity of training
- **High flexibility in ICT infrastructure**
 - Technical ICT mostly imposed by customers
 - Flexible / light administration and management infrastructure
 - High degree of use of popular software



Suppliers' needs and VIVACE

- **Three main areas driving needs and requirements**
 - **Business**
 - **Methods and personnel**
 - **ICT framework**
- **Business**
 - **Need for Visibility on evolution**
 - **Limited Investment capability**
 - **Alignment of suppliers' business strategies to customers' , particularly for single market companies**
 - **Understanding/sharing technology evolution roadmap developed by primes**
 - **Understanding most competitive supply options**
 - **Fair competition**
 - **Protecting information commercially sensible (mainly associated to supply chain management activities and to knowledge management)**
 - **avoiding loss of contractual power when opening up company know-how**



Suppliers' needs and VIVACE (cont.)

- **Business**
 - **Sustainable evolution**
 - **optimising investment requests to fit suppliers capacity and capabilities**
 - **supporting smaller companies in transition to new methods and tools**
 - **sharing evolving business model, as relevant to tiers and disciplines**
 - **Long term agreements**
 - **involvement in life-through support**
 - **associated to performance metrics programs**



Suppliers' needs and VIVACE (cont.)

- **Methods and personnel**
 - **Optimising propagation of methods usage through the supply chain**
 - **Need to develop contractual agreements to improve confidentiality of information and valuing suppliers' knowledge**
 - **Tailoring knowledge management methods to fit attitude of smaller companies' personnel**
 - **Standardisation of methods and supply procedures is a must to make more efficient the supply to multiple customers**
 - **Optimisation of processes and organisation should imply an integrated view of the whole supply chain**



Suppliers' needs and VIVACE (cont.)

- **ICT framework**
 - **Data management**
 - Data object to include values, description, format, context and processing methods
 - Use of neutral formats, standard through different markets
 - Care in the control of information flows to reduce unneeded information transfer
 - **Solutions**
 - Alignment of solutions with companies' IT policies (acceptability to large and small companies)
 - Security solutions to be tailored to organisational view
 - Harmonisation of tools among primes
 - **Infrastructure**
 - Compatibility with existing systems
 - Coordination in infrastructure updating



Action Plan

- Offer a single point to access 3TS relevant information from VIVACE
 - Scope of innovation
 - Ongoing activities with potential impact on 3TS
 - Relevant results
- Ensure confidentiality
 - Controlled access
 - Invitation driven registration
- Interaction mechanisms
 - Participation to the activities for identification of suppliers' classes and characteristics
 - Evaluation of identified requirements and suggestion of additional ones
 - Supporting the definition of the supply chain operational framework from the point of view of suppliers



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