THE REPRESENTATIVE ORGANISATION OF EUROPEAN SPACE SMES

POSITION PAPER OF SME4SPACE FOR THE PREPARATION OF THE RENEWED INDUSTRIAL POLICY OF THE EUROPEAN SPACE AGENCY.

The SME community is a critical part of our industry. This role is recognised by the different stakeholders and is reflected in the national and international authorities' policies.

SMEs offer the flexibility and proneness to innovation that is generally accepted as a welcome contribution to Europe's space economy's sustainable growth. SMEs do not have a monopoly on these but add a specific perspective that benefits the whole industry and space community.

The challenges for our industry are constantly changing and it is clear that some of these changes are much deeper than those we were confronted with before. This has led to a joint effort of all stakeholders, including the SMEs, to try to define a renewed common industrial policy.

SME4SPACE, the representative organisation for the European SMEs in the space sector, has participated in the preparation thereof. As the definition phase of this policy comes to its final stage SME4SPACE wants to reiterate some of its key point in this note.

SMES AND PROFITABILITY

The profitability of our industry has become a major topic of the industrial policy discussions and rightfully so.

Within this overall framework we want to stress the specific needs of SMEs and we underpin our position with convincing figures.

SME4SPACE has executed a study on the economic performance of SMEs in the European space industry in the ESA Member States (whose leaflet is available at the following *link: https://www.sme4space.org/Leaflet_Study_on_European_Space_SMEs.pdf*).

An academic research group of the KULeuven (Catholic University of Leuven - Belgium) processed all financial data of the more than 1000 SMEs having received a contract from ESA in the period 2014-2018 (a new assignment for the KULeuven has started for the year 2019).

This unique study brought some interesting overall figures under our attention but for the industrial policy especially the conclusions with respect to the profitability are important:

- **SMEs are very capital intensive**: Total assets of space SMEs exceed the overall Turn-over achieved which is a high ratio compared to the overall economy. This implies that huge investments have to be made by the SMEs to be able to compete successfully, higher than in other industries. And for their growth, SMEs have huge investment needs, higher than companies in other industries.

- **SMEs in the European space industry have a weak profitability**. This indicator was measured using the return on assets ratio which was only between 3.2% and 4.1% over the five years covered by the study (with the lowest ratio in the last year examined).

The combination of these two elements, high capital needs with low profitability, as substantiated in our study, offers a clear rationale for a profitability policy for SMEs even before we take into account the impact of the COVID crisis.

This implies of course that the measures proposed should be made available to each type of economic actor and to the different types of programmes. Within the bigger programmes existing and new measures should be flown down within the overall consortium and the same measures should also be made available to participants in smaller programmes and projects (e.g. management or risk buffers).

SME4SPACE therefore underwrites the principle that profits should be linked to the risks as was proposed by the Agency. This principle should be applied consistently. But we also plead for the application of the mirrored principle: risks should be linked to the profits. Within a consortium, smaller participants should be requested to accept lower liabilities.

THE NEED FOR INVESTMENTS

Part of the industrial policy is the support for a strengthened financing of SMEs through a dedicated "lending platform". Based on the figures given and on our yearlong experience SME4SPACE wholeheartedly supports these efforts.

We continue to hope that a workable tool coordinated between ESA, the EU and EIB/EIF can be put in place soon.

We cannot deny that private capital investment in our industry lags behind other parts of the world. For the growth of our companies, new financial resources will be required, both in the downstream and in the upstream sectors.

Initiatives of the Agency to support private investments, start-up initiatives and technology transfers, and spin-in contribute to this aim. Nevertheless, a direct support as envisaged in the proposed **Lending Platform** is a necessary addition to offer the SMEs the financial resources required for their sustainable growth.

SMES IN THE SUPPLY CHAIN AND BEYOND

A sustainable supply chain, whereby SMEs play a critical role, is another aim of the industrial policy of ESA. As do play an essential role in Europe's supply chain it is important that SMEs are represented at the different fora where policy measures are taken and that the issues dealt with are also looked at from the SME perspective.

We are very pleased with the role SME4SPACE can play in ESA's overall industrial policy setting and in specific processes such as Harmonisation or Standardisation. We hope that this role can be confirmed and strengthened where needed.

We are also continuously vigilant and interact with the Agency's management and officers whenever issues arise both within consortia and at programme level. We can confirm that the openness towards SME4SPACE and towards individual SMEs has increased considerably. The role of the SME Office is a vital one here.

We want to propose to complement this with a bilateral meeting between SME4SPACE, representing a workforce and turnover at least equal to that of one of the LSIs, and the directorate of the Agency at regular intervals

Since its incorporation 10 years ago SME4SPACE has been defending specific policy measures and wants to underline some of them.

Within the Supply Chain

We are confident that ESA is the guarantor of a fair treatment of all chains in the European supply chain and many mechanisms are in place to deal with any complaints that might unfortunately still arise.

We continue to be the defender of simpler rules, better payment schedules and fair contractual clauses. For the industrial policy we want to reiterate some of our major worries:

- Developed space technologies should be used as much as possible in (institutional) space missions to **avoid the valley of death** for newly developed space technologies. Too often ad hoc developments are developed for a given mission, while the already developed technologies remain without utilisation.

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- We strongly plead for the extensions of the possibilities offered by **IOV/IOD Missions** granting the much-needed proof of concept in flight. A guaranteed flight opportunity, e.g. every semester would enhance considerably the chances for such new developments to obtain their seal of approval.

- The need for more **flexibility** in the approval process and in the rules for amending ongoing projects became even more stressing during the past crisis.

Beyond the Supply Chain

Since our start we have been asking for attention for the much broader role that SMEs can play in the space industry. Whereas our role in the supply chain is indeed a critical one an SMEs can do much more. Examples of programmes successfully led by SMEs are well known and we are very pleased that this capability of an SME is now almost generally accepted and is even seen as a necessity for an overall sustainable European space industry.

We believe that two of our policy proposals should be part of the renewed industrial policy.

Small Programming

Think small as smaller programming would give the opportunity to respond more directly to the new needs and challenges of the space community and it would of course let SMEs have the opportunity to take the lead.

New smaller specific programs would indeed allow the Agency to be able to respond to specific needs of markets, of member states, to implement new technologies and new business solutions (e.g. Artic Mission)

Within existing programmes, the application of this method should lead to smaller projects giving the opportunity to even a single SME to participate or to propose a specific activity. A welcome side effect would be that difficult contractual situations within consortia (e.g. liability) can be eliminated further.

Horizontal Programming

The Agency is a very vertically organised international organisation. SME4SPACE has therefore been pleading for more "horizontality" for some years now
Horizontal programmes, over the different directorates, seem obvious to us for some activities (PPP, product development, spin-in, IOV-IOD). It would significantly enhance efficiency (organisational,

selection of the best overall, no laps in between, no differences in rules and contracts), and ensure easier access for interested companies.

We are aware that this would require "Thinking out of the box" or rather "out of the existing pillars" at regular intervals.

In the meantime and as a first step, SMEs will benefit from a **one-stop-shop with the same set of rules** for all (e.g.) technology development or incubation initiatives within the Agency.

AND NEW SPACE?

Opposing "new space" and "old space" is not SME4SPACE's idea of a discussion on a renewed ESA Industrial Policy.

For us the impact of new technologies, new business methods/models and new financing resources with their own rules and expectation is not only unavoidable but should be welcomed.

New players and legacy companies (including SMEs with a long-proven track record in the industry) will co-exist. Some will be successful, some will fail. Why would our industry be different from others where shift like these occur regularly?

An industrial space policy of a public authority should therefore not make a choice between new or old. It cannot be denied that these new shifts offer new opportunities and these new solutions offered should be looked at without any prejudice. But new does not necessarily mean better and the Agency should therefore try to find the best solution, new or old.

The policy proposals given above would allow the Agency to do so more easily. Flexibility in programming, in managing programmes and projects and in the internal organisation are indeed prerequisites to be able to respond to the evolutions in the industry. ESA should foster these and use the benefits offered by new space and allow Europe to be a stronger player in this renewed global industry. Otherwise, the risk that other actors, i.e. American and Chinese, define the new rules without us will increase considerably. We are afraid that these new rules are being written now.

ESA AND THE EU

SME4SPACE has been pleading for a coordinated action of these two major international institutions. But again, we are not unique in this.

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As the representative organisation of the SMEs in our industry we have also been invited regularly by the Commission to present our views and participate in the definition of the space programmes. SME4SPACE has consistently pleaded in favour of a clear role for ESA within the overall European initiatives, a position that was always the majority view around the table.

But we strongly believe in the complementarity between the EU and ESA whereby ESA Unique Selling Proposition is its overall technical expertise but, taken from the perspective of an SME, also the technical expertise of its officers interacting with our teams.

Although we do have expertise in working with the Commission at different levels we do not see it as our mission to make further detailed proposals on how this coordination should be put in place. But we do underline the need for it very strongly. Because, again, Europe should be able to be a partner for the other players in our global industry and one European public space policy is a condition precedent for that.

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