

Ben Ruck, Chairperson ECSEL Public Authorities' Board (PAB)
European Nanoelectronics Forum, 24 November 2016, Rome, Italy

National priorities in an international context

Ladies and Gentlemen,

It is a great honour and a pleasure for me to address the European Nanoelectronics Forum as Chairperson of the ECSEL Public Authorities' Board.

I have been asked to share some thoughts with you on the theme "*National priorities in an international context*". One might call it a rather provocative topic when looking at recent developments in Europe and the world. It is not easy to overlook the shift in focus, back to mere national interests and away from a common approach of the broad range of important issues which need our joint attention at European as well as global level. Personally I do not feel comfortable with this trend.

There is a growing discomfort with many people about global developments that impact their daily lives, but at the same time they feel out of control of.

I think we should not ignore such feelings and make all efforts possible to show and justify what we are doing together.

I will come back to this later in my talk.

“Innovation along the value chain”

This is the theme of this year’s Nanoelectronics Forum.

Indeed, our community faces many challenges both in terms of market structure and rapid developments in technologies. New players enter traditional markets. Just look at Google’s ambitious plans in the field of autonomous driving vehicles.

Another example is the recent announcement of Qualcomm about their acquisition of NXP. Also a move driven by technology developments. This takeover will strengthen the position of the company in key areas for growth like automotive, Internet of Things and security and networking.

In this battle for market supremacy Europe is well positioned. We are leaders in public and private R&D. Unique assets are the various regional centers of excellence Europe is famous for. We keep a strong position in vertical markets like healthcare, automotive, energy, security and emerging markets like sensors and MEMS.

And in manufacturing and equipment Europe remains at the forefront.

So apparently we are in the clear both in terms of expert knowledge and entrepreneurial spirit.

But just the two examples I gave show us that this position is by no means unchallenged. More the opposite I would argue. Just because we have a strong presence in a range of vertical markets it is of the essence that we have unrestricted access to *state of the art* components these markets need to remain at the highest level of innovation. Without sufficient control in the field of components and systems we risk losing our competitive advantage in other economic sectors as well.

Therefore we should mobilize all possible efforts to maintain and preferably improve our presence on the global playing field.

What have we done so far?

I think I am not exaggerating when I say that in one aspect Europe, and particularly the electronic components and systems industry, is unique and that is the long standing tradition of intensive R&D&I collaboration at various levels: regional, national, EU and intergovernmental.

The ECSEL Joint Undertaking, emanating from the earlier JTIs ENIAC (for nanoelectronics) and ARTEMIS (embedded systems) and complemented with the ETP EpoSS, has been an further step in this tradition. Maybe this step was somewhat controversial when it was first proposed, but looking back now it seems the obvious way to go forward. It merges three major themes: nanoelectronics, embedded systems and smart systems, thus enabling the creation of a new type of projects that facilitate smart combinations of these themes.

In the framework of ECSEL we are able to establish clear links between essential technologies and key application areas.

I am the first one to admit that ECSEL poses interesting challenges. After all, in ECSEL different “blood types” have to work together, which is not always easy.

Like its predecessors ENIAC and ARTEMIS, ECSEL has a unique “*tripartite*” structure. The industrial associations are at the helm and define the strategic agenda. The European Commission looks after the pan-European interests and participating Member States can introduce national priorities in a much broader setting and benefit from expertise and knowledge from other parts of Europe.

ECSEL is a strategic programme with substantial budgets from all stakeholders. The 2016 ECSEL call shows project costs amounting to over € 725 million and contributions by EU and Member States of roughly speaking well over € 300 million (on a 50/50 basis).

The Public Authorities' Board, or PAB, of which I have the honour to be the chairperson, each year decides on the way the available EU and national budgets will be allocated to project proposals evaluated and ranked by external experts.

Starting from this evaluation, more than 25 participating states and the European Commission, each with their own interests and budget, have to reach a common decision on how to select and fund a series of good and even better projects.

I sometimes call it “three-dimensional chess”. That up to now, usually after a long debate, we have always succeeded in arriving at a joint conclusion, well you may call it a miracle but I think it clearly illustrates that we share the conviction that the cooperation we see in ECSEL projects can serve national and pan-European interests at the same time.

I am pleased to say that 2016 was not an exception to that rule. A fortnight ago, on 10 November, the ECSEL PAB arrived at a decision on two calls – again by consensus, so without

the necessity of voting: the first one on Research and Innovation actions (or the RIAs), the second one on Innovation Actions (the IAs).

Like in previous years the discussion in the Group was intense, profound, sometimes not so easy, but always constructive. After all, substantial project efforts, budgets and national interests are at stake: that deserves a thorough discussion.

I think we selected a balanced set of projects covering the spectrum of ECSEL in a balanced way.

Nevertheless we should not turn a blind eye to the problems and issues that can occur when trying to align dozens of national and EU procedures and decisions in order to arrive at clear, joint and timely decision on the support of big and strategic European-wide projects, with many participants from many participating countries. Because that is what ECSEL is all about!

If we fail to deal with such issues in a proper way they may have a negative impact on the quality and effectiveness of the programme on the longer run.

It is also for this reason that the PAB decided to assess and perhaps review its experiences regarding this year's call

selection- and decision process to see where we can improve our way of working. Given the broad commitment to ECSEL by all stakeholders – public and private, I am confident that we will be able to resolve these issues to our mutual benefit.

So, what can we do more, or better?

I said it already: ECSEL constitutes a unique collaborative structure. The presence of all relevant industrial players, academia, Commission and participating Member States – with for some countries some regions as well – offers exceptional opportunities for initiatives that cannot be done in more traditional programmes, national or European. We should make the most out of it. And in my view that could be more than we make out of it now.

If we are serious about ECSEL making a visible contribution towards our European ambitions, these ambitions must be clearly reflected in the projects that emerge from the calls.

Otherwise we might end up with an impressive number of interesting but in essence isolated R&D&I projects, making the results of ECSEL fall short of the high expectations we had at the start. That would be a missed opportunity!

On the other hand, if we succeed in this joint effort the results will undoubtedly be a powerful argument in favour of

continuing this format in a future Framework Programme, or even rolling it out in others areas like Commissioner Oettinger recently suggested at the ECSEL Stakeholder Forum.

But we should even look beyond ECSEL. Improving the synergy with other relevant activities: national, regional and intergovernmental could really create substantial impact. At first glance I am thinking of the EUREKA-clusters ITEA and PENTA that operate in the proximity of ECSEL. The interdependence between these programmes cannot be denied. You will allow me to elaborate.

- ECSEL facilitates large projects, with a pan-European scope and covering a range of societal issues. This is why participation of both the European Union and Member States is essential to ensure a successful project result. The ranking system guarantees that only the best projects receive public support.
- The EUREKA clusters are better equipped for more focused, maybe smaller projects, aimed at national strategic interests of, generally speaking, a limited number of participating countries. A ranking system like we operate under ECSEL would be less appropriate in this setting.

These characteristics may sound contradictory but in my view they are in fact complementary. This Forum today proves

this, since all relevant programmes are present here today. To me it comes as no surprise that industrial association AENEAS provides the umbrella for the nanoelectronics sector in ECSEL as well as the connected new EUREKA-cluster PENTA, that was launched at the beginning of this year. And maybe this might present a stimulus for the three industrial associations currently active in ECSEL to review and renew their future mutual working relationship with the aim of improving the ECSEL results.

It could even be considered to involve ITEA, the EUREKA-cluster with obvious connections to ECSEL, in such a discussion.

But even when we look a bit further we can identify new avenues of cooperation in our area.

Recently, I had the honour of being present at a workshop with the topic of integrated funding through regional cooperation with Joint Undertakings. An event organized by the *Committee of the Regions* as part of the “*European Week of the Regions*”. In ECSEL we already see examples of European Regions taking an active role in supporting projects that have a clear regional footprint. I am well aware that such concepts are not always easy to implement and further elaboration of the opportunities is necessary. But it is well worth looking into these options, because substantial sums

of money are involved, when regional developments are concerned.

And finally I would like to draw your attention to the ongoing activities to set up an *“Important Project of Common European Interest”*, or IPCEI in the field of micro- and nanoelectronics. A very challenging initiative that goes beyond mere R&D&I actions.

In the words of Commissioner Oettinger: *“This IPCEI facilitates first production of innovative future-proof energy efficient smart technologies. It is to secure that the next wave of digital products can be conceived , designed and manufactured in Europe.”*

At the moment five Member States together with relevant industrial partners are actively involved in the development of this very large multidimensional initiative, that can be valued in billions of euros.

Really, this is European industrial policy in the making!

Often we hear critical even cynical remarks regarding European policy incentives in our sector. Reference is made to the support Asian companies receive from their national governments.

“In Europe all efforts are too late and too little.” one hears complaining. But given what I told you in the last couple of minutes such comments are not really fair and certainly overlook the fact that much more is possible when we look at the broad range of opportunities that we have at our disposal. And Europe has an enormous reservoir of knowledge and entrepreneurial power. What we could do better is: put that reservoir to work!

Now, how can ECSEL further contribute to this process?

The ECSEL community has embarked upon a new and interesting journey with the development of the so called *“Lighthouse Initiative”*. A concept that goes well beyond traditional R&D&I projects.

Now we all know that a “Lighthouse” is a shining spot on the horizon, that helps us to find our way. In terms of the ECSEL programme the “Lighthouse” is to be seen as a range of activities that are necessary to reach a higher pre-defined goal. Such a goal could be derived from the area of the autonomous driving car. It could be a healthcare topic, or security of IOT or maybe something completely different. Any individual ECSEL-project or a series of projects can be part of a “Lighthouse”, but other activities e.g. in the field of regulatory measures or standardisation, if they are crucial to achieve the “Lighthouse” objectives, can also be conceived.

It is not the intention to change the way we work and select and fund projects in ECSEL: what we want to do is to create synergy where appropriate and to propose supporting activities. To ensure that the impact of the projects in various fields is as optimal as possible.

Last week, on 15 November, the ECSEL Governing Board examined this “Lighthouse” concept. It resulted in a lively debate. A first series of ideas for possible “Lighthouses” was presented by representatives from the industrial community in ECSEL. The Board has not yet finalized its discussions on the essential details of this “Lighthouse Initiative” and a follow up is foreseen for its December meeting, but I am convinced that it will offer interesting new opportunities for the programme.

Ladies and Gentlemen,

In the beginning of my talk I referred to the discomfort with many people inside and outside Europe about what we, policymakers and industry, are all doing without involving the general public. They feel being kept in the dark, and in response are withholding their support to new initiatives.

We need to communicate much better on our actions and achievements to satisfy a broader audience. And I am not

thinking of events like this Forum where I meet an interested and expert audience that probably shares most of the ideas presented and understands why we are doing all this.

Make no mistake! The Nanoelectronics Forum is important: I am not denying that. However, we also need a clear and dedicated message to decision makers relevant to ECSEL at national, regional and European level.

And let us not forget the general public in our countries. European citizens use our technologies when they drive their cars or are admitted in hospital for treatment. It is their tax-money we invest in a broad range of projects and for which the public expects something in return.

I am pleased that the ECSEL Governing Board is currently overhauling its communication policy. A Working Group was set up to prepare concrete proposals in this field. Effective communication of its achievements to all audiences is essential to the programme!

Ladies and Gentlemen,

I'll wrap up my talk.

I start repeating myself, but ECSEL is a unique and valuable tool to all of us. At the same time it poses enormous

challenges to all stakeholders with 3 industrial associations, 27 participating countries and the EU. Each stakeholder with his own priorities, interests and budget.

Can this ever work?!

Apparently it does because the common interest does not, by definition, interfere with the national or company interests. It works when we all benefit.

With this in mind I think we can even go further along this road, with challenging initiatives that are convincing enough to ensure the future support of the European citizens.

Having said that: “National priorities in an international context” is not contradictory at all: it will be the major strength of European cooperation. An asset that – and of this I am totally convinced – makes us unique in the world!

I wish you an invigorating Forum day.

Thank you for your attention!