

9 PROF. BENGT SUNDELIUS: Bridging the gap between end
10 users and S&T research, we have two perspectives on
11 this. We have the perspective from the European
12 Commission, and we have the perspective from DHS. And
13 we will begin with Mr. Marco Malacarne, who is the head
14 of the Union for Security Research. Dr. Weissenberg may
15 be the father of security research, but Mr. Malacarne
16 owns security research. He's head of the unit. Please.

17 MR. MARCO MALACARNE: Thank you, Bengt. I for a moment
18 I thought you were going to call me the uncle of the
19 program. Uncle Marco sounds much better. Director
20 General Lindberg, Secretary Buswell, many thanks for
21 inviting me here to share with you some ideas about my
22 work. Ladies and gentlemen, I would also like to thank
23 very much my good friend Bengt for the opportunity of
24 sharing with him some ideas. And probably it's not a
25 coincidence, Bengt, that our cooperation started not

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1 many years ago in a very good steak restaurant in
2 Washington. And as an Italian I can certainly confirm
3 that good food is always conducive to great things. Now
4 my task this morning is to give just a brief overview of
5 what it looks like, what it sounds like, to try and
6 bridge the gap between research and users and
7 applications at the end. It is always written
8 everywhere you look into the framework program that our
9 security theme is application oriented, user friendly,
10 user oriented, but it is not that easy to make sure that
11 at the end of the pipeline there are products. And it's
12 very easy to distinguish myself from my distinguished
13 American colleague because he will be talking about
14 commercialization whereas we have no commercializations
15 at all in the framework program. Very much as I would
16 like to coordinate a procurement scheme across Europe, I
17 would have to ask permission 27 times, to say the least,
18 and that would be a bit worrisome. So I certainly do
19 not want to establish comparison between the two
20 systems. I will leave that to those who are interested.
21 Personally, I believe there is really no interest in
22 this discussion. The two systems might be different,
23 and it's simply a matter of understanding how they work,
24 so that I can and I will show at the end how they can
25 converge into common goals.

1 Now, first of all I'd like to give a brief overview of
2 what the security theme of the Seventh Framework
3 Programme looks like. Allow me please not to go into
4 the details but simply to say that it includes seven
5 thematic areas, four technical thematic areas: Security
6 of citizen, security of critical infrastructures,
7 security of borders and crisis management, and then
8 three so-called overarching activities that cut across
9 everything. One is the link between security and
10 society. Coordination and interoperability and then
11 coordination across different players of research and
12 governance. And altogether, as Bengt and
13 Dr. Weissenberg mentioned this morning, it includes and
14 covers a not insignificant amount of EU funding for a
15 period of seven years. Now, something else that I would
16 like to say is the way we construct -- at least not "we"
17 but the way our grantholders, because we're working in
18 terms of grants, in terms of call for proposals.
19 Another difference is that we're not working in terms of
20 call for tender, so we're only funding roughly
21 50 percent of the research that is conducted by other
22 players in the private and in the public sector. The
23 way in which we structure our program is in building
24 blocks. So we start from the small building blocks
25 developing technologies, individual technologies, what
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1 we call capability projects, and then more or less in a
2 sequential and logical way, we also try to develop
3 integrated projects where different technologies are
4 then integrated together, and finally all this should
5 end up in big demonstration projects or even programs
6 where the integration is at the level of system of
7 systems, whatever that might mean on a case-by-case
8 basis, and whether new technologies should be tested.
9 Product services should be tested and validated, a big
10 word which has to be qualified with care. At this stage
11 it appears to me, but of course also to many of you,
12 that there is a certain paradox because this kind of
13 research requires a lot of investment. I will say it
14 and I repeat, we only fund roughly 50 percent. That
15 means the research players in the European scheme have
16 to put up with their own 50 percent. In some cases that
17 means tens of millions of Euro for a typically two or
18 three years project. That is a huge investment, and
19 this is a market which is denoted by the lack of massive
20 commercialization. In many cases we're talking about an
21 institutional market where the buyers are national
22 authorities. So many of the research players look at
23 U.S. for legislation. They say could we have an
24 environment that allows U.S. to have a certain picture
25 of what it looks like so that we can adapt ourselves to
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1 certain legislation. And the legislators inside and
2 outside the commission say, yes, legislation would be
3 wonderful, but this is a new area, a moving area, and
4 before we can fix legislation we can fix standards, we
5 need to have research. So this is a paradox and, like
6 many paradoxes, it has to be taken in a positive way.
7 So it simply points at certain dialectics, a certain
8 movement that has to be established between the demand
9 side and the supply side, and of course later on you
10 will hear how this has been done in ESRIIF. So the key
11 to that is starting with the users. This is only a
12 symbolic picture to say that when we talk about users we
13 really talk about those men in the streets whose job it
14 is to save lives for instance. And that is another
15 paradox, because these people say, yes, we like
16 research, but sometimes it looks like a huge complicated
17 black box to U.S. And we understand that long-term
18 investments are necessary, but we are paid to work on a
19 daily basis, and can we see what benefits we might get
20 tomorrow morning, because we have to justify our
21 engagement in research vis-a-vis our authorities. And
22 it is not always that easy to demonstrate that there are
23 immediate returns. So to give close examples of what I
24 mean, I've chosen two examples of two demonstrators
25 already Dr. Weissenberg referred to in his speech on
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1 maritime border security and security of mass
2 transportation, which are in the pipeline now. Why have
3 I chosen those two areas? Not only because they are the
4 first two in the pipelines -- the call for proposal is
5 still open at the moment -- but because without many
6 words of explanation you will all understand how
7 ferociously complicated they are, both in terms of
8 problems and in terms of achieving solutions. Maritime
9 border security is a subject where everybody in Brussels
10 is keen to speak about. Everybody in Europe and many
11 speakers today, tomorrow and the last few days at the
12 other conference have spoken about that. When you look
13 at what is to be achieved, you're talking about plenty
14 of data coming from different ranges of detectors of all
15 possible kinds, and all this data has to be fused
16 together and given in an intelligent way to those
17 practitioners who have to go around their business as
18 coast guards for instance. And that is extremely
19 complicated, not least because of the fragmentation in
20 the European way in which coast guarding is done.
21 So it requires a lot of networking among the suppliers
22 of new technologies and the users of those technologies.
23 Mass transportation is another obvious example. It
24 speaks by itself, but one figure I learned not long ago
25 that really made me think, there are more users, more
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1 people moving in and out of a metro system of a normal
2 medium-size city in one day everywhere in Europe than in
3 one of the biggest airports in Europe for the whole
4 year. And all these people, as we have learned,
5 potentially may have good intentions or bad intentions,
6 and how do we go around securing these critical systems?
7 If you stop the metro of any city, just one idea, the
8 car transport, the system will go bananas, and this will
9 have repercussions on the environment. So all these
10 issues are terribly interconnected. Now, what have we
11 done in concrete? I said let's start with the users.
12 Users first, it's not always easy, but I've tried to
13 invite them to workshops, simple as that, where we put
14 together users, practitioners, national authorities
15 inside the Commission, outside the Commission, and
16 discuss about their requirements as Mr. Weissenberg
17 said. I'm going to repeat that because this is really
18 the issue. Who are we talking to in Europe? If you
19 take border security, there is an agency, Frontex, whose
20 task it is now to coordinate all the security at the
21 European level. This is a difficult task, and it's just
22 starting. In mass transportation there is no European
23 agency as such, so the diversity of requirements is just
24 staggering. And we have to look for commonalities and
25 of course ad hoc situations.

1 Now, in the end I said we have no authority, no mandate
2 to commercialize, to procure anything, not even any
3 authority at the moment to impose or to force standards.
4 We can only push gently the players of research into
5 some kind of auto evaluation, auto validation as a
6 precursor perhaps to what one day may come as a system
7 of standardization, as a system of certification at the
8 European level. And when you talk about standards and
9 certifications, even the experts of this very complex
10 art -- I'm not an expert -- tell U.S. that just to talk
11 about tests, possible testing, you are testing on
12 conformance, interoperability, robustness, performance,
13 and of course, as Minister Mate would say, also about
14 the privacy resilience of new technology. So it is
15 awfully complicated, and we're talking about very
16 complex systems. Sometimes very complex systems do not
17 really match at the level of conformity of the
18 individual elements, but still at the level of the
19 overall system, the systems are all interoperable. Not
20 even the experts sometimes know with why this is the
21 case. So it is extremely difficult even to define the
22 notion of a standard in this area. In the end, and this
23 is where I would like to converge and join forces with
24 my colleague, we're talking about risks, threats that
25 are quite often -- not always, but quite often -- of
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1 global nature where users cooperate quite often on a
2 global scale and where markets -- I come from industry
3 and enterprise so I cannot help but dwelling also on the
4 market dimension -- markets are often of a global
5 nature. I'm very grateful to the support we got from
6 DHS for the workshop in Bremen a few weeks ago, and that
7 was a case in point of a global market par excellence.
8 One of the speakers said unless we go towards the same
9 goals and same standards, if we diverge we will all dry
10 up in the desert of reality, because this is a huge
11 market. The commercial interests are so huge that
12 tolerating an overhead is perhaps possible, because
13 security is security, but tolerating a duplication of
14 overhead is not something that the market will allow.
15 So we are almost obliged to work hand in hand. And
16 coordination is a starting point, but I think, allow me
17 this little linguistic disposition, that coordination is
18 not enough. We have to go towards real cooperation. So
19 I have two conclusions to summarize my presentation.
20 First is that moving towards applications, especially in
21 old Europe, is not something that can be done by magic
22 overnight. It requires plenty of incremental steps.
23 But in any case when we talk about issues of global
24 scale, there is a certain knowledge of cooperation that
25 really makes sense, and I think that when we have
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1 problems of this case we have to work together. Thank
2 you very much for your attention.