

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

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.

3 PROF. BENGT SUNDELIUS: And I give you Thomas Cellucci.

4 DR. THOMAS CELLUCCI: Good morning. It's a real  
5 pleasure to be with you here today. Maybe I should  
6 start by way of background. I have the great fortune of  
7 being in the private sector myself for over 20 years  
8 as a president and CEO. But I've also been very proudly  
9 a first responder for over 30 years. It's been a great  
10 pleasure, particularly yesterday, for me. So many of  
11 the European first responders that are here with U.S..  
12 I'd like to acknowledge their presence as well as the  
13 presence of all the first responders that are joining  
14 U.S. via the internet. And now in my role as chief  
15 commercialization officer I have been able to work in  
16 the public sector, and it's been very interesting, and  
17 I've been asked today to give a very broad overview of  
18 the structure and operations organizationally of the  
19 Science and Technology Directorate. I will also put it  
20 in perspective of the entire department, and tomorrow at  
21 the plenary session we will talk in detail about what  
22 Marco mentioned about commercialization and innovative  
23 public-private partnerships. But if I could be so bold  
24 as to give maybe reading homework, you could look on the  
25 DHS website. Simply go to [www.DHS.gov](http://www.DHS.gov). Look up "doing

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1 business with DHS" or "commercialization" and you can  
2 find the five books, the 21 articles and, yes, even the  
3 movies we have produced to talk about doing business  
4 with DHS. In fact, I leave this first PowerPoint up.  
5 People often ask me -- I've been asked many times since  
6 we've gotten here -- how do I begin, where do I start  
7 about looking at opportunities to work with DHS. Please  
8 send me an email to just say, Tom, please send me a full  
9 response package. And what that will be is a very  
10 detailed brief or presentation called "Opportunities For  
11 the Private Sector in Public." It's for both private  
12 sector organizations as well as universities, national  
13 labs, et cetera. A listing of our high priority needs  
14 from the department; and, thirdly most importantly, a  
15 vehicle by which you can tell U.S. about your  
16 technologies, products, services and how they relate to  
17 our needs, which goes into a large repository that is  
18 viewed by anyone at the Department of Homeland Security.  
19 But to follow up on what Marco was saying, I'd like to  
20 give you a very broad overview of Science and Technology  
21 Directorate. If you know anything about the Department  
22 of Homeland Security, there are over 216,000 employees,  
23 many organizational elements. Science and Technology is  
24 one organizational element like many others who are  
25 there to enhance, support and enable the mission

1 critical objectives of what we call the seven operating  
2 components of the Department of Homeland Security. And  
3 these are the organizations you're familiar with.  
4 Perhaps you're seen on television the Coast Guard, the  
5 Secret Service, TSA, Customs/Border Protection, et  
6 cetera. So, again, Science and Technology is an  
7 organizational element within this 51 billion U.S.  
8 organization to enhance, support and enable the mission  
9 critical objectives of the seven operating components.  
10 But what you need to bear in mind when we talk about the  
11 Department of Homeland Security is we're not only  
12 responsible for the seven operating components; we're  
13 also responsible for other stakeholders. Namely,  
14 through the office of Infrastructure Protection, we're  
15 responsible for the 18 sectors that comprise the U.S.  
16 economy. You know them: Transportation, banking and  
17 finance. And one of our division directors, Chris  
18 Doyle, I'm sure will talk to you in some of the breakout  
19 sessions about some of the special needs of the private  
20 sector.  
21 We're also responsible for the massive amount of first  
22 responders. People are surprised to hear it, but when  
23 you do a detailed analysis there are over 25.3 million  
24 first responders in the United States alone. This is  
25 comprised of what we call the front line: Police, fire,  
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1 emergency medical technician, and bomb disposal. But  
2 then there are what we call backup first responders.  
3 And basically, as you'll learn tomorrow,  
4 commercialization has become very popular because of the  
5 fact that commercialization really deals with the  
6 generation of markets and the production and deployment  
7 of products and services to meet those needs of the  
8 markets. When you amalgamate or start collecting how  
9 many people are represented, are potential users in the  
10 seven operating components, the private sector itself,  
11 critical infrastructure key resource owners and  
12 operators -- we call that particular market -- as well  
13 as the, as I said, the first responder, when you  
14 amalgamate these DHS stakeholders, these markets become  
15 quite large. And what we have found, time and time  
16 again, is the private sector is ready, willing and able  
17 to assist U.S. using their own resources to get  
18 sustainable business opportunities. So currently we're  
19 developing 43 products and services, using the  
20 commercialization model, in much shorter time than  
21 governments normally develop. And we'll talk about that  
22 in detail tomorrow. But I'd like to share with you from  
23 a strategic level how the S&T directorate determines and  
24 prioritizes unsatisfied needs and wants, and that's  
25 through what is called the Capstone Integrated Process  
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1 team. To those of you from the private sector, this is  
2 going to look like part of a marketing plan, and that's  
3 exactly what it is. It's a vehicle by which to work  
4 together to understand the unsatisfied needs and wants  
5 of these stakeholders, but to Marco's point, most  
6 importantly, do something about it. Unlike so many of  
7 you who are young and full of hope, I am old and full of  
8 other things, and I learned a long time ago in business  
9 that you need to keep it easy and make it simple to  
10 understand. So what we are working very hard at at the  
11 department is not only giving you high level capability  
12 needs but working on detailed operational requirements.  
13 And it's been our experience, if we give you detailed  
14 operational requirements, coupled with conservative  
15 estimate of market potential, that's the information  
16 that you need so that you can determine whether or not  
17 there's a business case for you. I will tell you the  
18 good news is the opportunities abound at DHS in the  
19 United States. And as Brad Buswell, our Undersecretary,  
20 mentioned, we don't care where it comes from. And as  
21 Marco said, S&T has no boundaries geographically. But  
22 the competition is becoming stiffer. Because of the  
23 economic uncertainty that we live in today, governmental  
24 markets have more stability in many ways than commercial  
25 markets. Competition is very tough. I will also say

1 and just share with you, give you some old man advice,  
2 that you may get a lot of emails a day. I get about 600  
3 emails a day, literally, and they all start pretty much  
4 the same way: Dear Dr. Cellucci, we're the only company  
5 in the world that does blank. If you receive that  
6 600-plus times a day, that would become puffery to you.  
7 So that's why I suggest you ask for the full response  
8 package. You get an opportunity to show U.S. how you're  
9 different. So getting back to the Capstone IPT,  
10 basically good organizations or organizations that get  
11 things done have a blend of strategic vision coupled  
12 with the discipline to get things done. The discipline  
13 to get things done is called execution. And you need  
14 both of those. And you need to realize the Department  
15 of Homeland Security is a fairly young organization. It  
16 just celebrated its sixth birthday. Being the father of  
17 six children, I can tell you that a six-year old is just  
18 ready to go to primary school. So I'm not making an  
19 excuse for the department. I'm saying that we're  
20 growing up. And as we do we're learning to define our  
21 requirements in more and more detail, which is going to  
22 be beneficial to the scientist at a lab, to a CEO of a  
23 company, et cetera. In terms of the organizational  
24 structure, there are six major divisions. This is what  
25 I would call the power and money base. These are the

1 people you're going to be interacting with at the  
2 breakout sessions and other sessions, and you are  
3 familiar with some of these divisions: Human factors,  
4 borders, maritime, et cetera. So be very careful to go  
5 and meet with these people and organizations and ask  
6 them questions. We've heard a lot of talk already this  
7 morning about things like situational analysis,  
8 situational awareness, interoperability. Those are nice  
9 words, but they're only words. We need to define in  
10 detail what that means, and that's what we're now doing  
11 at the department. It would not be truthful to say we  
12 have detailed operational requirements for all of our  
13 activities. Far from it. You have to start this  
14 cultural process and we'll talk in more detail. But ask  
15 people in detail, what is it that you specifically need  
16 so that you can understand, because only by that  
17 understanding -- as Marco commented, understanding what  
18 the first responders need, understanding how a first  
19 responder or someone on a border is going to use a  
20 tool -- that's what's critical. So the power and the  
21 money is held within those six divisions. Why? Because  
22 these are the people to ensure that they understand the  
23 unsatisfied needs and wants of their customers. The  
24 three different stakeholders we just mentioned. The  
25 seven operating components, the first responder

1 community and the private sector's critical  
2 infrastructure and key resource owners and operators.  
3 The division is run like a portfolio. Approximately  
4 50 percent of the budget goes to transition, and  
5 transition is basically short-term activities to get  
6 technology, products and services in the hands of these  
7 stakeholders. Another 5 to 10 percent of the budget  
8 goes into what is called innovation. Innovation would  
9 be analogous to disruptive and enabling technologies.  
10 So these are things that have very high payoffs, but the  
11 risk profile is different than in transition. There's  
12 much higher risk, but the potential payback is great.  
13 My specialty happens to be laser physics and  
14 nanotechnology -- nanotechnology or MEMS --  
15 biotechnology. Some areas would be considered  
16 disrupting and enabling technologies. And then about  
17 20 percent of the budget goes to basic research. These  
18 are long-term programs and are the precursor to what we  
19 call product realization. So those of you who are  
20 involved in basic science, take heed and be satisfied to  
21 know that research is critical, and when you look at the  
22 materials I mentioned to you on our website, you will  
23 find how basic research and technology development are  
24 critical activities in the commercialization of products  
25 and services. And then we have monies applied to  
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1 administrative functions. Now, the kernel of activity  
2 at a strategic level within the Science and Technology  
3 Directorate led by Undersecretary Buswell is the  
4 Capstone IPT process, and on the left-hand side you will  
5 see graphically who the people are involved in this  
6 process. At the top of this diamond is the customer.  
7 That customer may be the Secret Service, for example.  
8 To the right are S&T providers. In other words, people  
9 in one of the six divisions we mentioned. Chem/bio,  
10 human factors, et cetera. Then on the bottom you see we  
11 bring in real users. So if we bring in the director of  
12 the Secret Service, we will bring in Secret Service  
13 agents because we want to understand the concept of  
14 operations and we want to get the perspective of the  
15 users. And on the left-hand side in the middle of the  
16 diamond you see the people from DHS management,  
17 acquisition, commercialization, to make sure that the  
18 programs, vehicles, processes are put in place to enable  
19 to execute a plan that may be developed. Currently  
20 there are 13 Capstone IPTs within the S&T Directorate.  
21 We have just added a Capstone IPT for the first  
22 responder community. I can tell you that it's been very  
23 challenging but also very gratifying to develop many  
24 books and materials on developing detailed operational  
25 requirements. And it's hard enough to do it in an  
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1 organization like DHS. Imagine trying to gather and  
2 prioritize the requirements of 25.3 million people just  
3 in the United States alone. Then let's take it globally  
4 to all first responders. It's a challenge. And the  
5 good news is we've developed a process to start doing  
6 this. In fact we just published a book dedicated to  
7 first responders called "Delivering Solutions to the  
8 First Responder Community." It's available on our  
9 website.

10 So this in a real world way at the strategic level are  
11 the Capstone IPTs that the S&T directors you will be  
12 meeting with during the next two days are responsible  
13 for. So it's a golden opportunity for you to meet with  
14 these people and remember to ask them detailed questions  
15 about what is it precisely they mean by a certain  
16 capability they're looking for, because only when we  
17 learn the details requirements can we deliver products  
18 and services. To that end I know we have brought and  
19 we've made available -- and this is one of the first  
20 items you see in the full response package I've asked  
21 you to send to U.S., to just drop U.S. an email -- this  
22 is a ranking of the high priority needs of the S&T  
23 Directorate which of course are representation of the  
24 three DHS stakeholders we just mentioned. And I highly  
25 recommend you get this booklet. Now, remember this is

1 at a high level. These are not the detailed operational  
2 requirements. One of the things you should do is look  
3 on our website for detailed requirements. They're being  
4 worked on constantly. But also take this golden  
5 opportunity, as others have suggested to you, to  
6 interact and network with the division leaders while  
7 you're here and they're here.

8 Again, I'd like to just end up by saying when you think  
9 of the Department of Homeland Security, don't only think  
10 about the seven operating components. While they're an  
11 integral stakeholder of course at DHS, they're but one  
12 of three, and the reason why, as you'll learn tomorrow  
13 in a plenary session that we've dedicated to our  
14 innovative public private partnerships through our  
15 commercialization model, is the fact that the potential  
16 available markets for so many of the products, services  
17 and in fact technologies we need are cross-cutting  
18 throughout DHS's stakeholders. This is real opportunity  
19 for businesses, and that's why people are coming to U.S.  
20 without the need for resources. It's not the only tool,  
21 as Marco said. It's not a silver bullet. It's one tool  
22 in a tool box, as we would say, an expression in the  
23 United States. So there are three transition pathways,  
24 if you will, for technology, products and services. We  
25 have what I call the captive audience at DHS, which

1 would be the field agents. These would be the Secret  
2 Service agents, Custom/Border Patrol Agents, TSA agents  
3 that you may see. They don't get to choose what  
4 software, what guns they use. They're told by their  
5 departments. They're captive users. Then we have the  
6 critical infrastructure and key resource owners and  
7 operators. And finally we have the first responder  
8 community. And I have had the pleasure of sharing the  
9 joy of playing a little part in saving lives and helping  
10 people, but more importantly I've shared in the despair  
11 of going to a mother and father with a child that didn't  
12 make it. And so I take helping the first responders  
13 very personally. These are the people on the line every  
14 day as we say, and I will tell you that so much junk --  
15 and I use that word deliberately -- has been sold to  
16 them. We need to give them the assurance that these  
17 products and services work. So integral to all of our  
18 processes as you saw on the diamond was T&E, test and  
19 evaluation. Again, so many of you are young and full of  
20 hope. I'm old and full of other things, and I learned  
21 you don't get what you purchase. You get what you test  
22 and evaluate first. So we are very big about tests and  
23 evaluation, as you would want U.S. to be as citizens and  
24 taxpayers. You want to make sure the products work.  
25 With that, I'd like to thank you for your attention and

1 I look forward to meeting with you personally during the  
2 rest of the conference.

3 PROF. BENGT SUNDELIUS: Thank you, both of you. We have  
4 time for some comments and questions from the audience,  
5 which is hard for me to see here. While you collect  
6 your thoughts, I have a question. Different in  
7 approach. Marco mentioned that the investments are  
8 50 percent usually, and it's expected the provider  
9 provide the other 50 percent. Now, you didn't mention  
10 any such figure. I expect you provide hundred percent  
11 for business or not. My second question is can North  
12 American providers apply for grants for Marco's program  
13 and can non-Americans apply for grants from the DHS? I  
14 think those are two questions that are of interest to  
15 the audience. You have microphones there.

16 MR. MARCO MALACARNE: The answer to the second question,  
17 thank you, is very easy. Yes, North American partners  
18 can apply in our program as partners, not as  
19 coordinators. That is just a detail. They've always  
20 been able to do so. The advantage of the implementing  
21 arrangements and of the overarching S&T agreement which  
22 is in the pipeline is that, if they do quarrel about  
23 IPR, now we know we have a legal basis on which to  
24 establish a duly (unintelligible) quarrel. Otherwise it  
25 will be a bit of a mess.

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1 DR. THOMAS CELLUCCI: Yes, in reference to the  
2 questions, we have no prejudice at all in terms of the  
3 geographical location of people, for example, who would  
4 like to participate in the innovative public-private  
5 partnerships through what we'll talk about in detail  
6 tomorrow called the SECURE program or the Future Tech  
7 program. And commercialization, as I mentioned, is just  
8 one tool of a variety of tools. We offer a myriad or a  
9 plethora of different programs focused on small  
10 business. We have what is called a long-range broad  
11 agency announcement, 0905. Again, I suggest that you  
12 email me. The one document of the three that I've  
13 mentioned called a brief entitled "Opportunities For the  
14 Private Sector in Public" delineates in detail all of  
15 the programs available. Any restrictions. There are  
16 some restrictions for smaller companies. I also like to  
17 mention, this comes up often -- I travel regularly  
18 throughout the world for the department -- people often  
19 ask me about the Buy American Act. And we have an  
20 article, one of the 21 I mentioned on our website  
21 talking about our global S&T outreach, and you'll see a  
22 whole paragraph dedicated to the Buy American Act, and  
23 what you'll find is that the Buy American Act really  
24 involves commodity purchases of things like paper,  
25 pencils, things of that nature at very low procurement

1 rates. And in terms of the procurement levels that we  
2 have, it doesn't play any real relevance. So I suggest  
3 that you look on the www.DHS.gov website and look for  
4 these articles. There are articles specifically  
5 targeted for global outreach.

6 PROF. BENGT SUNDELIUS: Thank you. Question?

7 AUDIENCE QUESTION: Thank you very much. Dr. Cellucci,  
8 I don't want to sell you a unique blanket around the  
9 world. So I just want to put two humble questions to  
10 you. First one, not only U.S., but we are experiencing  
11 in the world a deep financial economic crisis. The  
12 question is: Security research in your country is a  
13 winner or a loser of this financial economic crisis?  
14 The first question. The second: After Katrina you had  
15 a lot of analysis about mistakes and how to make it  
16 better next time. Which are your recommendation to  
17 Europe in case of this major event like Katrina? Just  
18 simple, if it's possible.

19 DR. THOMAS CELLUCCI: Don't worry, it will be simple.  
20 In terms of the first question, in terms of research, I  
21 will tell you that it's been my experience not only as a  
22 government employee that small companies create the  
23 innovation. That's true what we see. I would say that  
24 research and technology development abounds in the  
25 security region within the United States. There are

1 many businesses getting involved. In fact, we track on  
2 a quarterly basis the number of small, medium and large  
3 companies that come to U.S., and it's simply amazing how  
4 many small companies are being developed quarterly,  
5 going after the security market. As was mentioned by  
6 some of our earlier speakers, there is growth in the  
7 worldwide security market, and what we're also seeing,  
8 as we'll talk about tomorrow when we talk about  
9 commercialization, most of the companies, believe it or  
10 not, that come to U.S. to partner with U.S. are smaller  
11 companies. But they get strategic partners that tend to  
12 be larger companies that have cash. They come and work  
13 together. We've already had two companies who are now  
14 being acquired by the big brother or big sister company  
15 they came to our program with. They had the innovation;  
16 the larger partner had the cash and the experience  
17 working with the government. So quickly, to answer your  
18 question, the research and technology development in the  
19 security arena is robust, but as I mentioned during my  
20 brief comments, that's both good news and not so good  
21 news for those of you that are in the private sector.  
22 Now that we're developing detailed requirements, giving  
23 out potential available market estimates, the  
24 competition has never been tougher. So you really need  
25 to quickly explain your value proposition, and we'll  
67

1 talk about that tomorrow, and you'll see that in some of  
2 the materials we send you.

3 In terms of Katrina, these are opportunities to learn,  
4 and I am probably not the person to talk about in terms  
5 of the lessons learned. I can tell you though that FEMA  
6 has been very active with S&T and has really embraced  
7 this concept of developing detailed operational  
8 requirements, concept of operations, having learned the  
9 lessons of Katrina. They value looking at detailed  
10 scenarios, concept of operations ahead of time to be  
11 prepared. And I will say of the 43, I believe it is,  
12 detailed operation requirements we've worked on,  
13 probably 30 percent of those originated from FEMA. So  
14 they've been very proactive into getting out with the  
15 users and the potential users based on their experiences  
16 with Katrina.

17 PROF. BENGT SUNDELIUS: I thank you for that. I expect  
18 that many of you have questions you wonder about the  
19 so-called detailed requirements. My advice is to  
20 pigeon-hole these two gentlemen during the rest of the  
21 day here and tomorrow and ask your perhaps more private  
22 or personal questions about the detailed requirements  
23 and how I can fulfill them. I think one thing we can  
24 agree on though is that the consortium composed of  
25 European and North American partners is the most

1 competitive proposal. Right? Thank you very much.