



Sentinels year report 2004

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Sentinels year report 2004

The Sentinels year report 2004 can be obtained from www.sentinel.nl/library/yearreport2004.pdf.

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Introduction

In the years 2002 and 2003 the Sentinels research program [2] was written. This program aims to improve ICT, networks and information systems security, including PCs, corporate and home networks, hand held devices, smart cards, and wireless networks. It targets the technical aspects of security through scientific research in close collaboration between academia and industry. After quite some activity to obtain funding for this program, it started in February 2004.

In 2004 the main Sentinels activity was the selection of research projects. This selection process has been concluded with the meeting of the Steering Group on November 24, 2004. In that meeting, the Steering Group granted six projects out of 15 submitted.

These projects will start in 2005. A user committee will be formed some few months after the start of a project, which means that at the end of 2005 most user committees will be active.

More information about the Sentinels research program can be found in the document "Sentinels in a nutshell" [1] or more extensively in the research program text [2] and the year plans for 2004 [3] and for 2005 [4].

This document describes the year report 2004 for Sentinels. Chapter 1 describes the year 2004 at a glance, chapter 2 describes the financial year 2004 for the program, and chapter 3 lists the members of the Steering Group, the Program Committee, the Daily Board, and the program management in 2004.

1 The year 2004 at a glance

The most important event in 2004 was the selection of the project proposals. This chapter concludes with the Sentinels press coverage in 2004.

1.1 Projects granted in 2004

In 2004, the first round of Sentinels proposals has been granted. This was the most important activity in 2004.

1.1.1 Procedure followed with pre-proposals

In February 2004, a call for pre-proposals was issued with a deadline of April 1, 2004. That call invited permanent scientific staff from Dutch universities and research institutes to submit a brief summary of a research proposal.

The pre-proposals were evaluated by the Sentinels program committee in her meeting of April 27, 2004, using the following criteria:

- Does the proposal fit within the framework of the program?
- Is there sufficient matching from industrial partners?
- Does the proposal address both scientific and utilization issues?

In the pre-proposal phase, no judgment on the actual content of the proposal was made, since such judgments can only be based on a full proposal and expert reviews. If the answer to any of the above evaluation items was 'no', the pre-proposal was rejected.

Twenty pre-proposals were submitted of which sixteen were invited to submit a full proposal. For some pre-proposals, the submitters got additional suggestions from the Program Committee to improve their pre-proposal.

1.1.2 Procedure followed with full proposals

The deadline for the full proposals was July 1, 2004. Fifteen full proposals have been received. After a formal check on program budget and the required matching from industrial partners, the usual procedure from Technology Foundation STW was followed. That means, a.o., that reviews are done anonymously and that for each proposal at least five external experts have been asked (both from universities and from industry). To ensure that Sentinels proposals are truly novel, international reviewers have been asked whenever possible.

Each of the experts has been asked a fixed set of questions (see [2, Section 7.3.1]). The reviewers' answers have been collected and sent to the applicants to comment. Answers and comments have then been merged in a single document, the protocol.

Next, each program committee member has scored each proposal with two marks: one for scientific quality and one for utilization quality. Also, he has given two yes/no scores for each of the two Sentinels' application areas. This list was processed by the Program Office and sorted on score. Based on this list, the Daily Board proposed a short list of candidate proposals to be granted to the Program Committee. This proposal was approved by the Program Committee in her meeting of November 24, 2004. Then, in that same meeting, the Program Committee made a granting proposal for the Steering Committee, which was subsequently approved in the Steering Committee meeting of November 24, 2004.

1.1.3 Projects granted

The following proposals have been granted:

- 6677, Erik Poll, JASON, Generic and Secure Remote Management Infrastructure.
- 6679, Prof.dr. Roel Wieringa, IPID, Integrated Policy-based Intrusion Detection.
- 6680, Dr. Ronald Cramer, Practical Approaches to Secure Computation.
- 6682, Dr.ir. Raymond N.J. Veldhuis, ProBiTe, Protection of Biometric Templates.
- 6684, Herbert Bos, DeWorm, Worm monitoring on Internet backbones.
- 6687, Erik de Vink, PINPAS JC, Program INferred Power-Analysis in Software for Java Card.

Short outlines of these projects can be found on the Sentinels website, www.sentinels.nl/projects. The six projects require a budget reservation of 3 M€, of which 2.3 M€ is financed by the Sentinels program and 0.7 M€ by seven different industrial partners. The details can be found in the year plan 2005 [4], in table 1.3.

1.2 Press coverage in 2004

As far as is known to the author of this document, Sentinels has generated the following press coverage activities in 2004.

- Feb. 16, 2004: “Persbericht: Tien miljoen voor computerveiligheid”, Technologiestichting STW, RS/BR STW-2004 02 16-01.
- Feb. 16, 2004: “Persbericht: Tien miljoen voor computerveiligheid”, Technologiestichting STW, Sentinels website. www.sentinels.nl/newsitems/20040216-commitments.
- Feb. 17, 2004: “Tien miljoen voor onderzoek naar computerbeveiliging”, Automatiserings Gids webeditie. www.automatiseringsgids.nl/news/default.asp?nwsId=26040.
- Feb. 19, 2004: “Computerveiligheid”, UTNieuws, weekblad van de Universiteit Twente, p. 8.
- Feb. 20, 2004: “Tien miljoen voor beveiliging”, Automatiserings Gids, p. 3.
- Feb. 20, 2004: “10 Miljoen voor computerveiligheid”, Technisch Weekblad.
- Feb. 27, 2004: “Computerveiligheid”, Onderzoek Nederland, p. 1 en p. 6.
- March 4, 2004: “Computersystemen in de toekomst veiliger”, Cursor, weekblad van de Universiteit Eindhoven.
- March 4, 2004: “Onderzoek computerveiligheid”, Ublad, weekblad van de Universiteit Utrecht, p. 28.
- March 2004: “Miljoenen voor ict-beveiliging”, OnderwijsInnovatie, p. 7.
- April 2, 2004: “Delftse professor wil veiliger internet”, Delta, weekblad van de Universiteit Delft.
- June 2004: “Beveiliging blijft aandacht vragen”, Computer Profile Community website. www.computerprofilecommunity.com/index.asp?page=d_a&lg_ID=3&art_ID=318.
- July 2004: “Sentinels wil kloof tussen onderzoek en praktijk overbruggen”, Rik D.T. Janssen, Informatiebeveiliging, p. 6–7.
- Nov. 30, 2004: “Veilige vingerafdruk, wormafweer en boodschapbetaling”, NWO website. www.nwo.nl/nwohome.nsf/pages/NWOP_674GPA.
- Nov. 30, 2004: “Gehonoreerde Sentinels projecten: Veilige vingerafdruk, wormafweer en boodschapbetaling”, Sentinels website. www.sentinels.nl/newsitems/

20041130-granted-proposals.

- Dec. 2004: “Veilige vingerafdruk, wormafweer en boodschapbetaling”, Onderzoek-Berichten, p. 13.
- Dec. 2004: “Uitkomst eerste ronde Sentinelsvoorstellen”, I/O InformaticaOnderzoek, jaargang 1, nummer 3, p. 13.
- Dec. 2004: “Sentinels, een nationaal onderzoeksprogramma over informatiebeveiliging”, Rik D.T. Janssen, Informatiebeveiliging jubileumnummer, p. 47–50. www.sentinels.nl/library/sentinels-informatiebeveiling-2004.

Other places where Sentinels has been mentioned explicitly.

- March 2004: “Senter en NWO bundelen krachten”, IOP Nieuwsbrief.
- June 2004: “Op weg naar de onzichtbare computer”, I/O InformaticaOnderzoek, jaargang 1, nummer 1, p. 8.

2 The financial year 2004

2.1 Adjusted budget

For completeness, this section has been copied without modification from the year plan 2004 [3, section 1.1], written on March 2, 2004.

The Sentinels budget has been described in the research program [2, chapter 5]. At the time of writing of that research program (August 2003), we were hoping for a 13 M€ budget. Now, we know that the research program budget is 10 M€. This means the following compared to the budget described in the research program text.

The matching funds from industry will decrease from 2.6 M€ to 2.1 M€. The reason for this is that industry carries a certain percentage of the research projects costs, and less budget for Sentinels means less budget for research means less contributions from industry. Table 2.1(a) lists the revenues.

Expenses for the item 'research' decrease from 10.4 M€ to 8 M€, and expenses for the items 'knowledge exchange' and 'office costs & program management' from 1.3 M€ each to 1 M€ each. Table 2.1(b) lists the total expenses.

The available budget for projects in the first round will remain as discussed in the research program (total 4.6 M€), but the budget for projects in the second round will decrease from 4.6 M€ to 2.2 M€. In case we obtain additional funding this will be added to the research budget in round 2 (and, proportionally, to expenses for knowledge exchange and office costs & program management). The budget for the Vici-style professor will probably remain the same since we consider this very important for knowledge dissemination (see table 2.2).

2.2 Overall program budget

There are three main types of expenses: expenses for project costs (see section 2.3), expenses for knowledge exchange (see section 2.4), and expenses for office costs & program management (see section 2.5). This grouping originates from table 2.1(b) and can also be

contributor	amount (M€)	expenses	%	amount (M€)
Public contributions:				
Technology Foundation STW	2.5	Research (incl. Vici-style professor)	80	8.0
NWO	2.5	Knowledge exchange (a.o. security ambassador, workshops, symposia, publ., comm.act., web portal (safe-nl, www.sentinels.nl))	10	1.0
Ministry of Economic Affairs	2.5	Office costs & program management	10	1.0
<i>Total public contributions</i>	<i>7.5</i>	total expenses		10.0
Matching funds:		(b) Overall expenses		
Industry (research, knowledge exchange)	2.1			
University (Vici-style professor)	0.4			
Universities (research)	p.m.			
<i>Total matching contributions</i>	<i>2.5</i>			
total revenues	10.0			

(a) Revenues

Table 2.1: Revenues and overall expenses

amounts in M€	2004	2005	2006	2007	2008	2009	2010	2011	total
Projects round 1		4.6	.....	.....	.....	.....	.....	.....	4.6
Projects round 2				2.2	.....	.....	.....	.....	2.2
Vici-style professor				1.2	.....	.....	.....	.....	1.2
Knowledge exchange	1.0	.....	.....	.....	.....	.....	.....	.....	1.0
Office costs & program management	1.0	.....	.....	.....	.....	.....	.....	.....	1.0
total expenses									10.0

Table 2.2: Original expenses per year as taken from the year plan 2004.

	research	knowledge exchange	office costs & prog. man.	totaal
aangegane verplichtingen 2004				
office costs & program management			1.000.000,00	
gehonoreerde projecten ronde 2004 voor voortzetting	1.608.500,00			
totaal aangegane verplichtingen 2004	1.608.500,00	0,00	1.000.000,00	2.608.500,00
totaal uitgaven in 2004		0,00	80.850,53	
beschikbaar op 1-1-2005	1.608.500,00	0,00	919.149,47	2.527.649,47
reserveringen				
gehonoreerde projecten ronde 2004 na voortzetting		620.000,00		

Table 2.3: Financial overview of 2004. For explanation see the text.

recognized in table 2.3.

2.3 Expenses for project costs in 2004

The projects which have been granted in the first round of the Sentinels program require a reservation of (rounded up) 3.0 M€ (for details see table 1.3 in the year plan 2005 [4]). This 3.0 M€ consists of (rounded) 2.2 M€ financial support from Sentinels en 0.7 M€ material, personnel and/or financial support from industry (the reason these do not add up to 3.0 M€ is due to the rounding up).

Since 4.6 M€ has been reserved, 1.6 M€ remains. This will be spent during the second round of proposals (which itself has much less budget available than the first round, this can be observed from table 2.2). This results in a new overview of expenses per year (table 2.4).

Since projects have not started in 2004, there were no expenses for project costs in 2004. Two reservations have been made to cover future project costs (see table 2.3): one of € 1 608 500 for financing projects before their continuation request¹, and one of € 620 000

¹The budget granted for a Sentinels project is divided in two parts, one part available directly after granting and the other part only after approval of the continuation request. This is done to ensure the quality of the research. A project leader has to do a continuation request within 18 months after start of his/her project.

amounts in M€	2004	2005	2006	2007	2008	2009	2010	2011	total
Projects round 1		3.0	.....						3.0
Projects round 2				3.8	.....				3.8
Vici-style professor				1.2	.....				1.2
Knowledge exchange	1.0	.....							1.0
Office costs & program management	1.0	.....							1.0
total expenses									10.0

Table 2.4: Expenses per year as planned on December 31, 2004.

for financing projects after their continuation request, for a total of € 2 228 500. Note that these two amounts do not include the contribution from industry. This is estimated to be € 703 528. In future year plans, we will also report on the contribution of industry.

2.4 Expenses for knowledge exchange in 2004

No knowledge exchange activities have been held in 2004. That means that there were no expenses for knowledge exchange activities in 2004.

2.5 Expenses for office costs & program management in 2004

The expenses for office costs & program management in 2004 are also given in table 2.3. From the total expenses in 2004 of € 80 850.53, € 71 400 (88%) was spent on personnel costs.

At the November 24, 2004 Steering Committee meeting, the Steering Group expressed a strong wish to reduce office & program management costs. As can be seen in table 2.1(b), these are approximated at 10% of the total program budget.

One should note however, that costs for program management reported by organizations as Technology Foundation STW or NWO are not comparable to costs for research program management for executing a program as Sentinels. The reason for this is caused by taxes (VAT). Whenever STW or NWO reports program management costs of, say, 7%, that is an amount excluding VAT.

STW is executing the Sentinels program, which means that program management costs from STW are charged to the Sentinels program. These costs consists of personnel costs (i.e., the persons running the Program Office) and other costs. The personnel costs form the major part (in 2004: 88%), and for these costs, VAT has to be charged to the Sentinels program.

That means, that whenever Sentinels reports program management costs of, say, 8%, this in fact means less program management costs than, for example, STW or NWO reports program management costs of 7%, since the first amount includes personnel costs *including* 19% VAT and the latter personnel costs *excluding* VAT.

3 Program management in 2004

The members of the Steering Group have been appointed by the participants providing funds for Sentinels. Approval from the Steering Group for the members of the Program Committee and the Daily Board has been obtained before new members joined the Program Committee or the Daily Board. For tasks and responsibilities of the Steering Group, Program Committee and the Daily Board, see the research program [2, chapter 6].

3.1 Steering Group members

The Sentinels Steering Group members as of December 31, 2004, are:

- Prof.dr. W. Jonker, Philips Research Laboratories & University of Twente (chairman) (from start of the program)
- Dr. R.D.T. Janssen, Technology Foundation STW (secretariat) (from start)
- Dr.ir. A.A.J.M. Franken MBA, Technology Foundation STW & Netherlands Organization for Scientific Research (from November 1, 2004)
- Drs. H.J.T. Nieuwenhuis, Ministry of Economic Affairs (from March 15, 2004)
- Ir. A.A.J. Reuver, IBM Nederland N.V. (from April 1, 2004)

The following persons were members of the Steering Group in 2004:

- Dr. J. Maas, Technology Foundation STW & Netherlands Organization for Scientific Research (from start – November 1, 2004)
- Drs. K. Vijlbrief, Ministry of Economic Affairs (from start – March 15, 2004)

The observers for the Steering Group as of December 31, 2004, are:

- A.L. Levisson, Ministry of Economic Affairs (from November 1, 2004)
- Dr. F. Zuijdam, Netherlands Organization for Scientific Research (from December 1, 2004)

The following person was observer for the Steering Group in 2004:

- Dr. A. Steenbruggen, Netherlands Organization for Scientific Research (from start – December 1, 2004)

3.2 Program Committee members

The Sentinels Program Committee members as of December 31, 2004, are:

- Prof.dr. W. Jonker, Philips Research Laboratories & University of Twente (chairman) (from start of the program)
- Dr. R.D.T. Janssen, Technology Foundation STW (secretariat) (from start)
- Drs. J.T. Bisseling, Senter (from April 1, 2004)
- Dr.ir. A.M. Bos, Chess Information Technology BV (from start)
- Prof.dr. W.J. Fokkink, Centrum voor Wiskunde en Informatica & Vrije Universiteit Amsterdam (from start)
- Dr.ir. L.J.N. Franken, ABN-AMRO Bank N.V. (from April 1, 2004)
- Prof.dr. P.H. Hartel, University of Twente (from start)
- Prof.dr. B.P.F. Jacobs, Radboud University Nijmegen (from start)
- Dr.ir. P. de Jager, TNO Telecom (from start – June 1, 2004 and from November 1, 2004)

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- E.R. de Lange, Ministry of Economic Affairs (from start)
 - Dr.ir. J.C.A. van der Lubbe, Delft University of Technology (from start)
 - Ir. H.A.M. Luijff, TNO FEL (from start)
 - Prof.ir. E.F. Michiels, Ernst & Young EDP Audit & University of Twente (from start)
 - Prof.dr.ir. B. Preneel, Katholieke Universiteit Leuven (from start)
 - L.A.M. Strous, De Nederlandsche Bank N.V. (from April 1, 2004)
 - Prof.dr. A.S. Tanenbaum, Vrije Universiteit Amsterdam (from start)
 - Prof.dr.ir. H.C.A. van Tilborg, Technische Universiteit Eindhoven (from start)
 - Dr. E.P. de Vink, Technische Universiteit Eindhoven & Leiden University (from start)

The following persons were members of the Program Committee in 2004:

- Ir. G. Kleinhuis, TNO Telecom (June 1, 2004 – November 1, 2004)
- Dr. J.L.M. Vrancken, Ministry of Transport, Public Works and Water Management & Delft University of Technology (from start – December 1, 2004)
- Ir. J.C. Wessels, LogicaCMG (from start – December 1, 2004)

The observer for the Program Committee as of December 31, 2004, is:

- Dr. F. Zuidam, Netherlands Organization for Scientific Research (from December 1, 2004)

The following person was observer for the Program Committee in 2004:

- Dr. A. Steenbruggen, Netherlands Organization for Scientific Research (from start – December 1, 2004)

3.3 Daily Board members

The Sentinels Daily Board members as of December 31, 2004, are:

- Prof.dr. W. Jonker, Philips Research Laboratories & University of Twente (chairman) (from start of the program)
- Dr. R.D.T. Janssen, Technology Foundation STW (secretariat) (from start)
- Prof.dr. B.P.F. Jacobs, Radboud University Nijmegen (from start)
- Dr.ir. P. de Jager, TNO Telecom (from start – June 1, 2004 and from November 1, 2004)

The following persons was member of the Daily Board in 2004:

- Ir. G. Kleinhuis, TNO Telecom (June 1, 2004 – November 1, 2004)

3.4 Program Office

The Technology Foundation STW acts as the Program Office for Sentinels. The Program Office is run by the following person as of December 31, 2004:

- Dr. R.D.T. Janssen, Technology Foundation STW (from start of the program)

Eight program officers from Technology Foundation STW have been involved with the proposal evaluation procedure. Also, eight management assistants have been involved with both the proposal evaluation procedure and with the Sentinels program during 2004.

References

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3. R.D.T. Janssen, "Sentinels year plan 2004". www.sentinel.nl/library/yearplan2004.pdf.
4. R.D.T. Janssen, "Sentinels year plan 2005". www.sentinel.nl/library/yearplan2005.pdf.