

Stichting NLnet Annual Report 2008

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Introduction by Chair Governing Board

First, I want to thank you for your interest in the work of our foundation. Throughout its history NLnet has contributed to a more open information society. In the first stage of its existence it was leading the Netherlands into the information age by pioneering the internet in Europe under the UUnet flag. In the second stage it had spun off its commercial activities, to become an active investor focussed on funding the advancement of research and development of network related technology. Since 2007 the foundation has an independent, professional staff that assists the board in making the right decisions.

Throughout the years a lot of groundbreaking work has been made possible thanks to NLnet's contributions. These projects may sound esoteric and even chaotic in their diversity: after all, there seems little in common between implementing an MSRP relay, internationalising a software license, developing a privacy friendly chip card for public transport, building a virtual machine for scripting languages or designing a mobile device for personal RFID security and privacy management. Reason is that one gets easily confused by the artefacts that are built, while instead one should look at the social values behind it. Net values instead of face value, so to say. NLnet wants an inclusive open information society that offers choice, privacy, security and technical robustness in every aspect - whether this is internet telephony, geotechnology or services delivered over the network. There is a lot of work to do still.

In 2008 over 180 projects were submitted to us from across the planet, of which 32 were rewarded. That is more than ever before, and we are proud that our foundation gets to enable remarkable individuals and teams to accomplish significant advancements in networking and information technology. Unfortunately we have to disappoint many excellent projects because every budget is limited.

NLnet works indirectly and has little practical need for glamour. A lot of the work of NLnet foundation will always stay under the radar, because that's just where the work lies that suits us best. Our unique position allows us to focus on what we think society needs in the long run, instead of focussing on short term rewards or publicity friendly results. We find that more and more projects value that other service we provide: bringing things together. In many cases we contribute financially to projects, but without exception we try to help smart people get the most out of their ideas and their efforts. And in the end, that is what NLnet really is about - getting extraordinary and creative people together to work on tomorrows problems today.

on behalf of the board Hans Onvlee



1.NLnet organisation

- *History* NLnet's history started in April 1982 with the announcement of a major initiative to develop and provide network services in Europe. NLnet was formally established as a "stichting" (Dutch for foundation) on February 27, 1989 and was situated in Amerongen, the Netherlands until April 2007.
- **Funding** In November 1994, NLnet Holding BV was formed by the foundation in order to create a commercial base for its internet activities. The sale of NLnet's Internet Service Provider (ISP) activities to WorldCom/UUnet (now part of Verizon) in 1997 provided Stichting NLnet with the means to actively stimulate the development of network technology and to make this freely available to the community in its broadest sense.
- *Domicile* Since 2007 NLnet is located in Amsterdam. It is registered at the Chamber of Commerce, Amsterdam under number 41208365.

NLnet foundations To be able to maintain a clear separation between Stichting NLnet's funding operations and the project technology related operations, Stichting NLnet has created separate legal entities for some of its more specialized projects, such as 2000's Stichting NLnet Labs and Stichting LogReport (closed in 2005) and 2001's Stichting SchoolLan (closed in 2006). These foundations, directed in full or in part by Stichting NLnet, have obtained a full non-profit tax status.

- Supervisory Board The Supervisory Board (Raad van Toezicht) of Stichting NLnet consists of:
 - Erik Esseling;
 - Erik Huizer, chair;
 - Kees Stuurman.

These positions are non-remunerate positions in accordance with the new NLnet Statutes.

- Governing Board The Governing Board of Stichting NLnet consists of:
 - Jos Alsters;
 - Hans Onvlee, chair;
 - Mike Otten.

These positions are non-remunerate positions in accordance with the new NLnet Statutes.

Operations For daily operations the NLnet Operations Management was staffed with three people, totalling the staff to 2,25 FTE (Full Time Employee), all are remunerate positions:

- Valer Mischenko, general director (full time);
- Michiel Leenaars, strategy director (0,8 FTE);
- Patricia Otter, administrator (0,45 FTE; whereof 0,15 FTE is



dedicated to administrative tasks of NLnet Labs).

Operations support For external (financial and legal) advice and consultancy, Stichting NLnet is supported by: Van Diepen van der Kroef (legal advice), Koningsbos Accountants (accountancy), PriceWaterhouseCoopers (payroll), and Attica Vermogensbeheer (investment management). The NLnet website http://nlnet.nl is maintained by Mark Overmeer (MARKOV Solutions).



2.0verview

NLnet financially supports open development of information society technologies. NLnet wants to facilitate shock waves of innovation.

- **Network research** NLnet actively stimulates the development of open network-related technology and makes this technology freely available to the community in its broadest sense. The technology should support and contribute to a better exchange of information.
- **Open Source** To this purpose, a wide range of Internet and technology related projects are permanently being funded for which Open Source licensing conditions (like GNU GPL, BSD license, Creative Commons and such) hold.
- *Non-profit* Stichting NLnet does not derive any financial benefits from the undertaken projects or their results.

NLnet involvement:

programs NLnet has a long term commitment to the following programs:

- 1. NLnet Labs a laboratory for Internet infrastructure development;
- 2. IIDS Interactive Intelligent Distributed Systems.

For more details see the Annex.

projects At any moment, dozens of larger and smaller projects are being financially supported by NLnet.

For more details on projects sponsored in 2008 see the Annex.

One of the main initiatives of the NLnet management from 2007, namely the project call system, allowing (on-line) submitting of project proposals for funding consideration, proved to be very successful in the course of 2008. This system was in the first instance intended for application of smaller projects (up to \in 30.000, time span less than 1 year), but later seemed to be very practical for larger project proposals (hundreds of thousands Euros, duration 2-3 years).

In 2007 NLnet has chosen two themes which continued to define the selection of larger thematics project proposals in 2008 onwards. These themes are:

- Identity, privacy & presence.
- Open Document Format.

See Strategic Themes on page 9 for more info.

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donations NLnet provides donations on a regular basis to a number of nonprofit organisations whose activities are in line with the NLnet mission and philosophy.

With donations NLnet supports also community building in the form of workshops, hackathons, conferences, and others.

More details on these and other by NLnet sponsored activities are provided in the Annex.

memberships

- NLnet is a Patron of the Free Software Foundation Europe;
- NLnet is a Corporate Member of USENIX (The Advanced Computing Systems Association);
- NLnet is an Executive Organization Member of ISOC (the Internet Society);
- NLnet is a Sponsor Member of ISOC.nl (the Dutch chapter of the Internet Society);
- NLnet is a Sponsor Member of the NLUUG (the Dutch Unix Users Society);
- NLnet is a founding member of OpenDoc Society.
- *co-operation* NLnet maintains close relationships with NLUUG (the Association of professional Open Source and Open Standards users in the Netherlands), USENIX (the Advanced Computing Systems Association) and the Freedom Software Foundation. Their regular activities, technical conferences, programs and occasional actions are being seen by NLnet as major forums to make its plans public, to encourage cooperation between information technology professionals and to obtain feedback from them.
- FinancingIn 2008 Stichting NLnet sponsored projects, programs and other
activities to the sum of \in 1.401.566 (compared to \in 881.493 in
2007). The total expenditure was \in 1.835.450.
In addition, NLnet played an advisory role 'pro bono' for projects, a
select number of organisations and government agencies.
For 2009 Stichting NLnet has a budget of \in 1.914.000 for financing
projects, programs and other sponsoring and donations. The total
budget equals \in 2.239.110 (this excluding unforeseen reservation
made due to yet unknown changes to the contract with the VU /
IIDS program).
The organisational overhead is being kept at around 15%.

Funds drawback In the second half of 2008, due to the worldwide credit and investment crisis, NLnet has experienced a considerable drawback in the value of the invested assets. This drawback equaled € 5.288.770 = -17,82%. Assets end of 2008 compared to the end of 2007. However, thanks to the conservative investment policy of NLnet and timely actions of the Board this fact had no influence on the liquidity position of NLnet, i.e. NLnet was able to pay on all

obligations.



3. Strategy, policy and working methods

Goal	Stichting NLnet's primary goal is to contribute to an open information society through the development of information technology and dissemination of knowledge.		
	This is done by stimulating new Internet and broader network technology research and development, primarily for managing and maintaining effective network operation, to improve existing technology, and to encourage new applications of existing technology. Stichting NLnet has chosen to do this by supporting Open Source (non-proprietary) oriented projects.		
Open Source	All results of projects are made freely available to the community in the broadest sense, usually with GPL, BSD, Apache or other Open Source licenses. The results where possible shall be presented in one or more publications and/or at one or more suitable international conferences.		
Strategy	In 2008 the strategy, as set up by the Board in 2006-2007, was continued. The main strategic attention was given to: effective mechanism for acquiring projects based on an open subscription, diffusion of innovation and "quality of life" of the users of the technology. Major part (about 2/3) of the budget was spent on projects lying within strategic themes focusing on resolution of modern society problems with the help of open (network) technology. See Strategic Themes below. Also in the frame of the defined strategy NLnet has organized a ThinkTank, involving representatives of the society in the broadest sense, in order to obtain a view on the trends and developments in our society and form a base for strategic choices for coming years. The results of the ThinkTank will be used to concretely define main themes wherein the substantial parts of the available yearly budget will be spent upon starting from 2010 onwards.		
Methods	 Stichting NLnet uses the following methods to reach the goals: subsidise (fully or partially) software and hardware development; finance advanced scientific research into network technology, often in co-operation with universities; provide financial and organisational backing for dissemination and exchange of knowledge about Internet technology through conferences, workshops and contests; sponsor knowledge exchange seminars and conferences 		



in order to spur debate and stimulate dissemination and deployment of results, knowledge and experience.

Sponsoring model	 Four level sponsoring and financing support model underpins the NLnet policy: On the highest level there are two programs being sponsored by NLnet on long term commitment basis: NLnet Labs and IIDS. These two consume almost € 1 mln, which is around half of the annual NLnet budget. The second level is formed by projects with a life span of 2 to 3 years within selected strategic themes (see below). The budget for this depends on urgency and quality of proposals and can go as high as hundreds of thousands Euro per year. The third level is for smaller project proposals requiring not more than € 30.000 per project with duration not exceeding one year. Sponsoring of conferences, workshops, hackathons, seminars, contests and financial compensation of travel costs for participants of these events form the forth level.
Strategic Themes	 NLnet in 2007 has picked two main themes, namely Identity, privacy & presence Open Document Format as main areas to focus its funding upon. With these two themes NLnet tried to actively pursue the further enhancement of online privacy and standardisation in open document formats. See for more information: <u>http://www.nlnet.nl/themes/</u>
Larger projects	These are projects with budgets going up to hundreds of thousands Euro, with average duration of 2 to 3 years. In line with the chosen strategy, only those proposals for larger projects are being considered which fall under one of the strategic themes. In order to acquire project proposals for larger projects NLnet applies both passive and active tactics. The passive tactic includes open calls for proposals on the website, press releases, interviews, etc. The active one includes approaching universities, commercial companies, communities and individuals, seminars, announcements at various events, and such.
Smaller projects	The smaller project proposals, i.e. those with requested budget not exceeding € 30.000 per project and duration not exceeding one year, are intended for new technology reconnaissance, smaller teams or individuals with not too expensive ideas, which can potentially lead to break-throughs in some fields, but are therefore riskier and less predictable than larger projects. In contrast to larger projects, there is no strict requirement for smaller projects to fall under one of the strategic themes. There are in total 6 calls per year for smaller project proposals placed every two months (falling on the first day of every

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second month: February, April, June, August, October, December).

Selection policy In fact anybody may apply for financial support to the proposed project if this proposal at least meets the following criteria: • the project shall stimulate the use of network and information exchange technologies for peaceful and human purpose; the project results will be freely distributed based on Open Source principles, e.g. under a GPL or other open source license; • the applicant is ready to undertake efforts to disseminate project results or will provide support in this; • the project would last max. two to three years (for projects falling within Strategic Themes) or less than 1 year (for smaller project up to \notin 30.000). These criteria are used for the first round of selection. For the second round of the selection some additional criteria are applied: • is the target group large enough? • what is the possible impact of the developed SW or HW? • are there possibilities to build upon the development? • is the solution generic enough? risks bound to the project / break-off risk? Next to open application procedure in some cases NLnet actively approaches parties which can due to their experience in some field substantially contribute to the existing projects or otherwise to the goals of NLnet. Incoming proposals go through well defined and tested assessment and selection procedures, followed by exchange of opinions with project leaders. Procedures In the course of 2008 the time-tabled procedure for project selection proved to ensure objectivity and separation of selection from decision making. The work flow adjacent to this procedure can be described as follows. After receiving (a set of) proposal(s) NLnet validates if projects meet the general criteria; in case a project is not eligible, the submitter is informed within two weeks so that they do not waste time waiting on funding that will not come. Next step is assessment of each individual project based on the score card (criteria, rating) of the proposal. For smaller project the NLnet management decides which projects will be financed at every round of open calls for proposals. The director obtained a power of attorney from the Governing Board to sign Memorandums of Understanding (contracts) with project teams on behalf of NLnet. For larger projects the primary selection with a description of the project proposal and recommendations of the management are sent to the Governing Board, which approves or disapproves the selection or sends it back to the management for further

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work-out. The Governing Board decides whether a project proposal is of interest to and appropriate for NLnet, possibly after consulting the Supervisory Board and/or other experts in relevant field(s).

The Governing Board signs Memorandums of Understanding (contracts) with project teams.

The management organises where possible and viable personal meetings with project teams to discuss details of the project, NLnet requirements, payment schedule and modus operandi. After a MoU is signed, projects may commence, therewith starts the supervision of NLnet over the projects. The supervision includes meetings and status discussion with project teams, monthly or bimonthly project reports, phone calls, mail exchange, etc. Interim project status reports are sent to the Governing Board.

The payments are made after reaching milestones defined in a project plan, which is the part of the Memorandums of Understanding.

The work flow includes evaluation after completion of the project.



4.Finances

Stichting NLnet finances its projects and activities from the annual revenues being received on the invested capital. When an opportunity arises NLnet will use donations from organisations and individuals and governmental subsidies to finance project activities, this under the condition that independence of NLnet in choosing and financing projects is assured.

Fiscal Status	Stichting NLnet does not derive any financial benefits from the undertaken projects or their results. Since 1999, Stichting NLnet has had a non-profit tax status (so- called Article 24 status, "algemeen nut status"). In accordance with changed legislation NLnet in 2007 obtained the non-profit tax status (ANBI-regeling) from the Dutch Tax Authority.		
Administration	Salary administration was contracted to the Financial Management Solutions group of PriceWaterhouseCoopers in Rotterdam. Koningsbos Accountants has been charged with compiling and auditing Stichting NLnet's Annual Accounts 2008. The accountancy report is a separate document. The figures are incorporated in this annual report.		
Cost of activities in 2007	The cost of Stichting NLnet's activities in 2008 is summarised and compared with numbers for 2007 below:		
		2008	2007
	Cost of projects	626.462	304.141
	Cost of programs	775.104	577.352
	Cost of staff	320.391	425.620
	Depreciation of inventory & equipment	5.694	3.522
	Other costs	107.799	402.794
	Total	1.835.450	1.713.429



Cost and revenue of investment management

The cost and revenue of managing the invested capital of Stichting NLnet in 2008 can be summarised and compared with numbers for 2007 as follows:

	2008	2007
Realised results from investment funds	1.541.027	532.539
Realised results from forward exchange contracts	1.617.488	2.123.606
Realised currency differences in cash accounts	179.902	-112.816
Total realised result	3.338.417	2.543.329
Transaction costs and custody charges	-84.093	-40.910
Investment management fees	-199.013	-231.183
Total cost of investments	-283.106	-272.093
Realised revenue on investments	3.055.311	2.271.236
Delta in unrealised results	-10.870.671	95.036
Revenue realised and unrealised	-7.815.360	2.366.272
Interest revenue	35.833	29.340
Special revenue	1.619	67.375
Total special revenue	37.452	96.715
Net capital gain / loss (-)	-7.777.907	2.462.987

The unrealised result of the investment portfolio can be summarised as follows:

	2008	2007
Unrealised result on investment funds	-7.455.203	7.401.754
Unrealised result on forward exchange contracts	-3.415.468	388.241
Total revaluation reserve ultimo 2008 (2007)	-7.789.995	
Increase / decrease (-) of revaluation reserve		95.036



Balance Sheet 2008

	debit	credit
Assets		
Total inventory	4.467	
Investment funds	20.996.615	
Revaluation reserve 2008		
Total investment funds		
Debtors		
Total Debtors	48.303	
Current assets	119.675	
Total current assets		
Total Assets	21.169.060	
Liabilities		
Capital and reserves		
capital		30.334.560
reserves		
Net liabilities		
Net current liabilities		447.857
Total Liabilities		30.782.417
Total profits and losses (2008: loss)	9.613.357	
Total Balance	30.782.417	30.782.417

contributing to an open information society



Budget for 2009	The budget for 2009, as approved by the board, is as follows:	
		Budget 2009
	Cost of programs and projects	1.914.000
	Cost of organisation including staff	320.110
	Depreciation of inventory & equipment	5.000
	Total "	2.239.110

 $^{\ast})$ this excluding unforeseen reservation made due to yet unknown changes to the contract with the VU / IIDS program.

Hans Onvlee,

Chair Governing Board Stichting NLnet

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Annex: NLnet programs, projects and activities in 2008

Programs in 2008

NLnet Labs Network technology development and engineering: through NLnet Labs, which was founded by Stichting NLnet in 2000 to develop, implement, evaluate, and promote new protocols and applications for the Internet. Its activities are focused on topics directly relating to the Internet's infrastructure, such as DNS (Domain Name System), DNSSEC (DNS Security Extensions), Ipv6 (Internet Protocol version 6), and routing. Application areas include top-level domain services. In 2008 NLnet Labs released "Unbound", a recursive nameserver that was developed in collaboration with Nominet, Verisign, and Kirei. Not only is the software written to be resilient to the DNS attacks that were made public in 2008 but it also fully supports DNSSEC. With the release of Unbound and the development of various other DNSSEC tools and tutorial material NLnet Labs strives for a positive contribution in the deployment of DNSSEC. By developing a routing simulation fabric NLnet Labs has also remained active in the area of routing research while with the participation of its staff in the IETF (The Internet Engineering Task Force), ICANN (Internet Corporation for Assigned Names and Numbers), IAB (Internet Architecture Board), and various ad-hoc committees NLnet Labs has continued to assume some responsibilities with respect to Internet Governance. For more information see http://nlnetlabs.nl/ or NLnet Labs' Annual Reports. Total amount: € 447.500.

IIDS Self-management of large scale autonomous systems is the main Intelligent Interactive theme of IIDS research programme: the computer science, the **Distributed Systems** role of the human user and the legal implications of their use. Research The goal of this research is, in the end, to design a generic multi-level reflective architecture for systems of autonomous systems, to understand its potential.

In 2008 different architectures and algorithms have been studied. The most important areas of research have been: selfreconfiguration of complex web-services, self-diagnosis of financial transactions, self-management of distributed electronic files, self-configuration of crisis management communication structures, and self-configuration of energy resources. The roles and responsibilities of human users in interaction with such systems requires a new paradigm for design: the contours of which are being explored. The role and importance of service level agreements, terms and conditions, and logs as evidence, are examples of topics that are being studied in these contexts in interaction with the Computer and



Law Institute. The AgentScape framework shall support large-scale, heterogeneous, secure, mobile agent systems and include identity management, security and pseudo-anonymity of mobile agents, bilateral web service access, and is intended to host up to 20.000 agents in simulations (e.g. auctions). Extended tutorials and developer support were being developed during 2008. The first two AgentScape developer meetings were organised in Delft and in Bath. For more information see <u>www.iids.org</u> Total amount: € 327.604.

Projects in 2008

Received proposals	In 2008 NLnet has received in total 127 project proposals, whereof 37 requests were granted (29%). LARGE: there were 11 requests for larger projects financing, 2 of them were granted (18%).
	SMALL: there were 116 requests for smaller projects financing, 35 of them were granted (30%).

Relatedness to themes The table below provides some indication of distribution of projects (being run and/or granted in 2008) from the point of view of relatedness to the two strategic themes:

Theme:	Identity & privacy	ODF	Not related
Small project	29	10	11
Large project	2	0	0
Total:	31	10	11

Note that some projects counted were granted already in 2007 and some granted at the end of 2008 were not yet running in 2008.

Projects finalized in The following projects were finalized and closed in 2008: 2008

Authentication with The project with Telematica Instituut implemented a *e-Passports* trustworthy identity solution that allows citizens to use their passports with built-in RFID (Radio Frequency IDentifier) chip for authentication at regular websites or webservices, e.g. webshops or for e-government like services. Total amount: € 22.100.

DIFR Tag-Scan-Privacy-
MatchGoal of the project was to develop a demo system able to
inform consumers about the RFID tags on the items they buy or
the tags that surround them in their environment. This by using
a mobile phone to display information about RFID tags in the
vicinity.After setting up privacy preferences in a profile stored on the
mobile phone of the consumer, the system matches the tag
policy with the consumer policy, and presents the result of the



match on the display of the mobile phone in an intuitive and appealing manner. Total amount: \notin 20.943.

CodeYard CodeYard is an initiative of the Computer Science Department of the Radboud University Nijmegen. CodeYard enables highschool students to contribute to Open Source Software (OSS) projects written by themselves and their peers. CodeYard provides infrastructure in the form of a "digital schoolyard" where creativity and programming talent meets to work together on programming projects with other school students. Students can use the infrastructure and expertise of the CodeYard project to produce OSS, which can be passed on to future generations of students. Ultimately this leads to a wider use of OSS.

NLnet in 2007 committed to sponsor transition of CodeYard to a self-sustaining infrastructure which had to take place in the mid of 2008. Unfortunately this target was not reached till the end of Nlnet's sponsoring period. Total amount: \in 62.468.

FLOSS ambassadeurs The promotion of FLOSS (Free/Libre/Open-Source Software) needs people. This project educated FLOSS ambassadors who started to disseminate open source philosophy and methods amongst non-profit organisations, SME's (Small and Medium Enterprises) and local governments in The Netherlands.

Volunteers became ambassadors, and started to train other people in the essence of Open Source principles and technology. Communication techniques are being taught to help contact a peer group of NGO's (Non-Governmental Organisations), SME's, and local governments.

The program was run by Gendo BV, located in Leiden, The Netherlands.

Total amount: € 17.400.

FLOSS Manuals Within this project FLOSS Manuals integrated the content creation platform with Print on Demand services. This enabled collaborative authoring of manuals online, and the output directly to book form available for purchase via a print on demand service.

Total amount: € 5.000.

Freedom Task Force The FTF (Freedom Task Force) project of the Free Software Foundation Europe was started in order to collect, analyze and share legal knowledge about Free Software, to safeguard the interests of Free Software projects and businesses, to bring together experts in Free Software legal issues and to work with other groups and help them achieve similar goals.

> The FTF provides legal support services to individuals, projects and businesses involved with Free Software. It operates a network of legal and technical experts. The FTF also possesses a group of volunteers interested in ensuring that everyone benefits from Free Software equally. The FTF cooperates with law firms with expertise in Free Software licensing questions in several European countries.

> FTF's intention is to create healthy and sustainable Free



Software legal infrastructure across Europe.

NLnet in 2007 committed to sponsor transition of the FTF to a self-sustaining infrastructure which shall take place in the mid of 2008.

Total amount: € 47.000.

- OpenMSRP Relay MSRP is the abbreviation of Message Session Relay Protocol, a protocol for transmitting a series of related instant messages in the context of a session. This project aimed to implement an Open Source MSRP relay based on IETF specifications RFC4975 and RFC4976, and provide a reference server side implementation of the SIP SIMPLE (SIP for Instant Messaging and Presence Leveraging Extensions) key component. The project contributed to the convergence of SIP (Session Initiation Protocol) and instant messaging. Total amount: € 14.000.
- **OpenMSRP Client** This project implemented an open source SIP SIMPLE MSRP client that provides near real-time encrypted text communications and end-to-end file transfer capability over the Internet. The client supports presence indications and buddy list management, text and file transfer multi-media communication using IETF standards (SIP SIMPLE). Also a basic voice capability is provided. This client replaces proprietary applications on desktops with one consolidated open source SIP software. Total amount: € 28.000.
 - Open Sesame Storage and querying middleware for the Semantic Web. In fact the project was finalized in 2006, but the developer Aduna Software in The Netherlands kept receiving money from NLnet for further promotions of Sesame. Total amount: € 500.
- **Strategy** NLnet intension of this study was: 1) to investigate the amount **Consumentenbond** of independence of the information about ICT, more specifically computers and computer software (operating systems), which the powerful Dutch Consumer Association "Consumentenbond" provides it's members with; 2) to investigate possible measures to ensure greater independence and a more neutral approach where possible and advise Consumentenbond on new approach. Total amount: \notin 1.904.
 - Turtle Turtle aimed at the creation of a peer-to-peer (P2P) infrastructure for safe sharing of sensitive data. The project was conducted by the Vrije Universiteit Amsterdam. It started in February 2005, but due to the fact that the main developer of Turtle left the project it was not completed as per project plan. Total amount: € 16.854.
 - UMTSmon UMTSMon is an open source project to enable Linux users to use Mobile 3G laptop cards and/or mobile phones to connect to the Internet from anywhere (as long as it has network coverage). The main target of UMTSmon is to be a simple tool that can be post-installed by a user who just bought their mobile device. Total amount: € 600.



Projects started in and running through 2008

- Anomos Anomos is a pseudonymous, encrypted multi-peer-to-peer file distribution protocol. It is based on the peer/tracker concept of BitTorrent in combination with the onion routing anonymization layer of Tor, with the added benefit of end-to-end encryption. By combining these technologies, a platform is being created where by no party outside of the trusted tracker will have any information about who a peer is or what they are downloading. Total amount: \notin 0 (payments started in 2009).
- **Bricophone** The Bricophone is a community-oriented mobile phone infrastructure in Open Source (both for hardware and software). It is a low cost, low energy, open hardware project built for communities up to ten thousand people within regional distances. The characteristic of the Bricophone infrastructure is that it does not require any static infrastructure like relays, antennas, or digital data centers. Bricophone is based on meshnetworking principle. It is not a replacement for regular cellular infrastructures nor an open-source cellular phone for regular mobile phone networks, rather it provides the opportunity for special uses in poor communities, mass rescuing in disaster areas, and cultural and social activities like festivals and other mass events. The project is being ran by CRASIab (LE CENTRE DE RESSOURCES

The project is being ran by CRASlab (LE CENTRE DE RESSOURCES ART SENSITIF à Mains d'Œuvres). Total amount: \notin 4.000.

- CAcert CAcert is a community initiative to provide free X.509 security certificate service. X.509 is used in network protocols like SSL, HTTPS etc., e-mail readers and browsers and security devices. CAcert is a non-profit association based in Sydney, Australia. NLnet sponsored the reorganisation of CAcert in 2007 and continues sponsoring the Mozilla root certification process being implemented by an external auditor. Total amount: € 18.000.
- Converter OpenDoc to Thus the objective of this project is to allow documents in the Gettext and XLIFF XML based OpenDocument format to be extracted for easier translation in translation tools. Unique of this project is that in order to reach the objectives, a collaborative arrangement between two organisations, namely Translate.org.za and Itaapy, was forged with the objective to build a solid platform by using the expertise from each organisation and software project. Total amount: € 10.000.
 - **CPAN6** The CPAN6 network can be used for collection of any kind of data (software, publications, photos, etc.), it creates any amount of archives (collections) and helps to maintain them, adds trust in publisher and security during transport, using crypto-signatures, and keeps track on license and copyright issues. It handles bundles of archives, and has so far no equivalent. CPAN6 becomes the follow-up of CPAN, PerI5's module archive. CPAN is the only archive for PerI5 for many



years to come as there are no plans for replacement. The design and the implementation is conducted by MARKOV Solutions in The Netherlands. Total amount: € 9.658.

FSF High Priority The Freedom Software Foundation high-priority projects list **Projects** serves to foster the development of projects that are important for increasing the adoption and use of free software and free software operating systems. he priority projects list shows areas where free software development needs to accelerate in order to stop users from being drawn to proprietary software and operating systems. It lists holes that aren't fully covered by existing projects. NLnet's contribution is being used to support development

sprints around the priority projects intended to produce free software drivers for network routers. Total amount: € 2.833.

- Global Independent Global Independent Streaming Support (G.I.S.S.) is an Streaming Support international network of free media activists, working in building an infrastructure for free media experiences, radios and televisions. In essence this is the only open system with different components and tools for setting up an independent radio or TV channel. Herewith one can easily create a channel and start transmitting just within 1 hour time using a live CD. Next to this G.I.S.S. is a real network supporting video transmission and archiving, offering a full solution for alternative media. Total amount: € 5.964.
 - **GNUnet** Goal of the project is to come up with adaptive protocols which adjust resource allocation based on automatically obtained network performance metrics that characterize the behavior of faulty or malicious nodes. The proposed new protocol shall be able to prevent peers from launching asymmetric attacks, which leverage weaknesses in the system and magnify the damage caused.

Total amount: € 0 (payments started in 2009).

Improving ODF support The main project goal is to import relevant tests from the testin Koffice suite. There will be a framework to load each test and code that tests if the loading succeeded and thus if the test passed. The second goal after this is to make a significant portion of the tests pass, which implies that KOffice can correctly load the ODF data. This includes implementing features in KWord that are required by ODF. The third goal, is that KWord as an application is finalized to be releasable at the KOffice 2.0.0 release.

Total amount: € 12.000.

KDEPIM Quality Sprint In order to keep track of the quality of code KDE has started an initiative, called Krazy, to have measure of quality and to make the community aware of this measure. This project is about getting the number of reported issues down, enhancing the tools used to measure quality and to speed up the re-licensing process of KDE.

Total amount: € 4.774.



MU-Jingle When a meeting between a scattered group of people needs to take place, a phone conference is a popular solution. These calls can become costly especially when participants have to make long distance or international calls to participate. It is intended that Multi-User Jingle improves over three existing solutions:

- Jingle: by supporting more than two participants.

- Skype: by being an open standard with a free software implementation.

- SIP: by supporting reliable peer-to-peer connectivity, as opposed to requiring dedicated media relay infrastructure, thereby allowing a video stream from each participant without the need for multiplexing.

Total amount: € 12.855.

Morphle Morphle is a project to stitch and glue together a large number of web 2.0 and 3.0 technologies. What is to be achieved is, among other things, providing the end-user with the ability to combine very easily web page parts such as snippets, widgets or components to create sophisticated web-sites. The second component of the Morphle project is to offer all of these tools through the Internet and accessed directly through the browser. Eventually, Morphle's hosting system will served-up from nextgeneration large scalable web-server (called Morphel) at very low costs.

Total amount: \notin 0 (payments started in 2009).

- Network Event Kit The Network Event Kit (NEK) is a kit allowing to quickly and cheaply build a network for various types of events. This kit will offer both cabled and over-the-air infrastructure. Next to building an Open Source Network Event Kit, the purpose is to gain knowledge and experience in practical setup that has value for Open communities. Total amount: € 6.000.
 - **NoScript ABE** NoScript increases web client security by applying a Default **component** Deny policy to JavaScript, Java, Flash, and other active content. It provides users with an one-click interface to easily whitelist sites they trust for active content execution. This project is specifically focused on developing a new web browser component called ABE (Application Boundaries Enforcer), aimed to mitigate or defeat Cross Site Request Forgery attacks against sensitive web applications.

Total amount: € 0 (payments started in 2009).

ODFsvn ODFSVN is a toolset to store ODF documents in a subversion repository. It allows you to use all features of a version control system: all changes are archived along with change notes, roll back to previous versions, see who made what changes and why, etc. People share their changes on the document through a shared repository. One can always see all changes from all editors, update your version to the latest revision and submit your changes. ODFSVN stores all repository information in the ODF metadata, there is no need to configure anything on your system.

Total amount: \notin 0 (payments started in 2009).



ODF for Symbian OS As more and more business and governments are adopting ODF, it is disappointing that no open source viewer for Symbian OS or other mobile systems exists. This project's aim is to support and release the source code of Mobile Office under GPL license. Total amount: € 15.000.

Open Design and This project is about the OV-chipkaart (OV, Openbare Vervoer in Implementation of Dutch stands for Public Transportation), a single national **Privacy-Friendly Public** chipcard for all public transport in the Netherlands, which is Transport Card similar to London's Oyster card or Hong Kong's Octopus card. It is now a propriatory solution being introduced by Trans Link Systems (TLS), a consortium of public transport companies. Early 2008 the OV-chipkaart has come under heavy attack because of both security and privacy concerns. The aims for this project are twofold:

> - On the one hand, to concentrate documenting of the current OV-chipkaart system, make a public repository of knowledge. Factual information about the design, strengths and weaknesses of the current system; an explanation of all the things that were in the news since roughly January 2008.

> - On the other hand, experiment with the card in order to transparently develop a new system from scratch in which RFID technology is used for ticketing in public transport. Using an open design process, the design criteria and the quality of the solutions can be evaluated by a broad audience, including scientists, hackers, but of course also stakeholders such as transport companies. This process may eventually result in an open standard.

Total amount: € 37.000.

- OpenMSRP Server This project aims to implement an open source MSRP multiparty IM (Instant Messaging) chat server that works seamless with the MSRP relay implementation. MSRP protocol (draft-ietfsimple-message-sessions) is a work item of the SIP SIMPLE (approved standard). At the moment, SIP SIMPLE lacks Open Source implementations, which hinders its wider adoption. Total amount: € 20.000.
 - **OpenStreetMap** OpenStreetMap is a unique project with a unique purpose: to Netherlands make a complete and free world map. However the map itself is not the only important part of the project. The underlying data allows many sophisticated applications to be built upon these data. Route planners, special maps, various analysis tools, etc. This project will help to set up a new OpenStreetMap API server with live rendering. Total amount: € 7.500.
 - Parrot Parrot is a virtual machine (VM) designed to execute byte code interpreted languages efficiently. Many modern for programming languages do not translate programs into machine native instructions, but produce some intermediate byte code which needs be interpreted by a virtual machine when the program is run. Parrot will run the byte code for the Perl 6 programming language, which is being developed. Other famous virtual machines are JVM and .NET. These environments are not Open Source and not free of restrictions.



They also both target only statically typed programming languages. As a result, they are not ideal environments for many popular (scripting) languages like Python, Ruby, and Perl. Parrot fills that gap.

Because of its importance this project was recently split by The Perl Foundation into a separate Parrot Foundation. Total amount: f_{22} 373

Total amount: € 22.373.

Plug in Your Desktop Make UPnP devices integrate seamlessly with a Free Software desktop, including discovery, management, popup in file browser, etc. Explicit focus on desktop-wide (as opposed to application-specific) integration and medium-term goal of desktop-independence in order to share technology with other Free Software desktops.

Total amount: € 0 (payments started in 2009).

- **RFID Guardian** All people getting in touch with the RFID technology, i.e. buyers and users of virtually any goods sold, shall have means to manage the information which is sampled and uncontrollably transmitted by the RFID chips. For this purpose the RFID Guardian is being developed. The RFID Guardian is a batterypowered device that represents the first-ever unified platform for RFID security and privacy administration. The RFID Guardian acts as an "RFID Firewall", enabling individuals to monitor and control access to their RFID tags by combining a standard-issue RFID reader with unique RFID tag emulation capabilities. Additionally, the RFID Guardian is useful as an RFID security diagnostic and auditing tool. Total amount: € 73.000.
- **RFID Guardian** This Project intends to accelerate hardware prototyping of the **Quickstart** RFID Guardian Project. This "RFID Guardian Quick Start Action" project was intended to bootstrap the large RFID Guardian Development project. It is also intended to place the Quick Start Action in a larger context, and in this helping to transform the concept of the RFID Guardian into a commercial opensource hardware product. Total amount: € 30.000.
- Sabayon Linux Sabayon Linux is a free, open source, Gentoo based, GNU/Linux distribution aimed to compete against Ubuntu in terms of hardware support, features and packages availability. This includes a management framework called Entropy, a RedHat Anaconda based installer, 3D/Hardware support. Total amount: € 7.000.
- Mailman Secure List Currently, there is no re-encrypting mailing list manager with support for both PGP and S/MIME protocols. Mailman is the most popular Open Source mailing list manager. The Secure List Server project "mailman-pgp-smime" aims to include OpenPGP and S/MIME support in Mailman, the GNU Mailing List Manager. Adding re-encryption will enable groups of people to cooperate and communicate securely via email: mail can get distributed encrypted to a group of people, while the burden of managing individual keys is dealt with by the list software, not the sender. Furthermore, authentication is possible: the list server software takes care of checking this. This way, strong security for groups



of people gets available for a wide audience. Total amount: \notin 16.540.

Small Sister This is a privacy project that aims to fight the dangers of data retention. A simple architecture based on existing technologies (PGP, TOR, Freenet) will take a chat-message or e-mail to another user and then place it online waiting for the recipient. By doing so it is obscure who communicated, but it is not obscure to the recipient (if the sender wants so). The application will be complimented with many user friendly features to make this an easy to use system.

Total amount: € 15.000.

Tor for low-bandwith One of the major goals of the Tor project is to provide secure anonymous Internet access to users in repressive states. These location often have very slow Internet connections to the outside world. By enabling these users to use the Tor network, significant progress can be made towards free communication and free information in these countries. The Tor anonymity system was previously only usable by Internet users with highbandwidth connections - upon start of a Tor client, a large file with all Tor server descriptions is being downloaded. This project will remove this restriction by optimizing the size of necessary downloads.

Total amount: € 9.000.

Tor Hidden Services The Tor Anonymity System's key functionality called Hidden Services allows users to set up anonymous information services (like websites) that can only be accessed through the Tor network and therefore are protected against identification of the host that runs the services. An evolution of the Tor protocol is proposed to speed up the Tor Hidden Services, where the improved protocol will primarily change the way circuits are set up.

Total amount: € 22.500.

Initiatives and activities

- NLnet ThinkTank NLnet has organized a ThinkTank, involving representatives of the society in the broadest sense, in order to obtain a view on the trends and developments in our society and form a base for strategic choices for coming years. Total amount: € 3.082.
 - **ODF / OOXML** In January 2008 NLnet put out a press release asking for the publication of deprecated file formats from prior versions of Microsoft Office, as part of the efforts for getting ISO to accept of a new but supposedly related format (DIS 29500, or OOXML). In February 2008 the Strategy Director of NLnet was one of the invited speakers during a high level conference on the future of standards that was held in Geneva simultaneous to the OOXML BRM. He, as member and former chair of the Dutch NEN 381034 standardisation commission, was critical over how the standardisation process was manipulated in the case of OOXML. During a conference at the TU Delft in March on 'the standards war' he also spoke about the process and the unmaintainable



position of Microsoft as both initial submitter and the isolated organisation submitting a veto in the Netherlands subcommittee. On April 1st 2008 it became public that OOXML had passed nonetheless; based on a number of interviews this was quoted by news sources all over the world shedding light on the 'dark side' of the OOXML process, including The New York Times, Reuters, The Guardian, IDG, etc. The Strategy Director wrote a number of invited articles on ODF and OOXML for Automatisering Gids, Open Source jaarboek 2008 and Linux Magazine. There was no concrete standardisation activity within ECMA TC 45.

- **The Netherlands in** In the spring of 2007 the Dutch Minister of Foreign Economic open Connection Affairs Heemskerk announced full government support for open standards and open source promotion. In 2008 the implementation of the Vendrik resolution of 2002 finally started to take shape. NLnet helped organise and facilitate a number of events, including the first meeting of the The Digital Standards Organization (Digistan) in The Hague on 21st May 2008. One of the main activities of Digistan is Domino, a project to translate the Dutch e-government framework for international use.
 - **GOUD** In 2008 there was much controversy about an important procurement for desktop for the Netherlands government after a number of articles were published that open standards based solutions were de facto blocked. In a parliamentary debate chancellor Wouter Bos put his head 'on the choppping block' for the procedure to be fair and correct. In May NLnet submitted a so called 'WOB' procedure to obtain all relevant internal government documents, followed by an almost complete refusal and a second procedure. In 2008 this resulted twice in questions in parliament; at the last day of 2008 the final results came in. After analysis this would lead (in 2009) to direct proof that the procurement was indeed (illegally) engineered to block suppliers of non-Microsoft technologies. A number of articles were published, e.d. Digitaal Bestuur and Webwereld.
 - OpenDoc Society In October 2007 NLnet was one of the founding members of OpenDoc Society, an association that promotes sharing of knowledge around the Open Document Format (ODF). Organisational members among others are OpenOffice.org, IBM, SUN, Bull, Google, Internet Society and Adobe. It organised a number of events such as workshops and masterclasses, together with partners such as "The Netherlands in Open Connection", Internet Society, Adobe and others. Over the summer OpenDoc Society helped publish a whitepaper 'Documentstandaarden binnen de overheid' targeted at IT policy makers within Dutch government. The NLnet Strategy Director attended London meeting of SC34 ad hoc group 1, representing the Netherlands (OpenDoc Society is member of NEN). Also in 2008, a working group was started to bring together knowledge on building templates in ODF; first project is to help convert the Netherlands House of Commons (Tweede Kamer) to ODF.
 - *Mailing lists* A master student at the University of Amsterdam, did a research



project on mailing list software with NLnet initiation and assistance. The result was a paper called 'Usability and efficiency improvements of the (GNU Mailman) mailing lists'.

- **Reverse app store** NLnet made a business proposal to Microsoft to cooperate and/or get access to build an 'app store' like platform integrated into Microsoft operating systems. The app store would enable customers that come across new file formats, codecs and protocols to get into contact with all relevant providers of technologies working with those formats. This would help create an open ecosystem where technology providers become visible to potential customers at the point where the operating system now fails and sends the user off to an internet search engine. No response was ever given to this important request, although a similar request from OpenDoc Society which was sent in the same envelope was acknowledged and refused by Microsoft. Further action is under investigation.
 - *Talks* A number of talks were given by NLnet staff in 2008 during the following events: *Standards and the future of the Internet* (Geneva, February 28), *The war between ODF and OOXML* at the University of Delft on March 18th, *Introducing GPLv3* at the University of Tilburg on September 19th, the annual conference of Center for Public Innovation *The Intelligent governement* held on December 12th 2008 at the Eerste Kamer (on the concept of a programmable government), 25C3 (Berlin, December 29th).
- Memberships,NLnet provides donations on a regular basis to a number of not-
for-profit organisations whose activities are in line with the
NLnet mission and philosophy.
 - Memberships ISOC, Dutch and International organisation, € 8.186;
 - NLUUG, € 1.839;
 - USENIX, € 78.
 - **Received requests** In 2008 NLnet has received in total 12 requests for events sponsoring and donations, 5 of them were granted, whereof one was indefinitely delayed by requester.
 - *Granted requests* Below is an overview of all donations made by Stichting NLnet in 2008 (i.e. including a number of requests received earlier in 2007):
 - Congres Tilting Perspectives on Regulating Technologies, Tilburg, The Netherlands, € 3.500;
 - September 2008: Launch of GPLv3 in The Netherlands, Tilburg, The Netherlands, € 1.313;
 - European meeting of GNU project maintainers in Bristol, UK, € 1.000;
 - Debian Bug Squashing Party, The Netherlands, € 199;
 - Sponsoring OSS Movement, The Netherlands, € 500;
 - Sponsoring New Year meeting of Dutch Internet-related organisations, The Netherlands, Amsterdam, € 2.500;



organisations, The Netherlands, Amsterdam, € 2.500;

- Sponsoring OpenStreetMap Belgium, € 1.000;
- Sponsoring Bricolabs/Dyne:bolic workshop in Indonesia, Singapore and India, € 2.500;
- ELC Europe 2008 (Embedded Linux Conference), Ede, The Netherlands, € 3.000.