Deliverable 8.2

Dissemination and Exploitation Report

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Dissemination and Exploitation Report V1

Document

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Document Reviews

The following table gives an overview of all document reviews.

Date	Version reviewed	Remarks, Corrections	Reviewer	New Status
29.10.2015	0.8	No remarks	Bernhard Strobl	Final

Table of Content

1 Introduction

1.1 Purpose of the document

This deliverable summarises dissemination and exploitation activities of the MobilePass consortium, carried out during the last 18 months of the project.

In particular, all activities like event participations, carried out workshops, as well as trade fairs, and research conferences with MobilePass contributions will be described in short.

Furthermore, this report includes a plan for upcoming actions towards next phase of the dissemination and exploitation plan.

1.2 Description of work for this deliverable

As described in the Description of Work of MobilePass, the content of this deliverable is defined as follows:

"… D8.2) Dissemination and Exploitation Report V1: Report on dissemination and exploitation activities (events, workshop participations, trade fairs, etc.) and achieved results (publications, partnerships to interested users or companies) during the first 15 months of the project. Furthermore, the reports includes and plan for upcoming actions towards next phase of the dissemination and exploitation plan."

As a consequence, this report collects all dissemination and promotion activities carried out during the first phase of MobilePass.

There have been several presentations on conferences (e.g. BioSig, EAB-RPC, CDCP, AVSS and more), several web activities and online promotion tasks (e.g. flyers and newsletters), and participations to standardization workshops (ISO/IEC JTC1/SC37 Working Group, CEN TG224 Working Group 18) as well as trade fair attendances (e.g. Security Essen, AVSS-2015 Industrial Day Karlsruhe).

2   Dissemination and Exploitation Plan for M1-M18

In this section, the dissemination and exploitation plan for M0-18 is introduced in short.

2.1   Dissemination Strategy

Our approach is based on the expert group report "Management of intellectual property in publicly funded research organisations: Towards European Guidelines"[1], released by the European Commission in 2004.

The MobilePass consortium follows a mix of the classical "open science model" and the proposed "innovation model" for IP dissemination. Figure 1 shows the basic structure and interconnection of these two models:

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[1] http://ec.europa.eu/research/era/pdf/iprmanagementguidelines-report.pdf
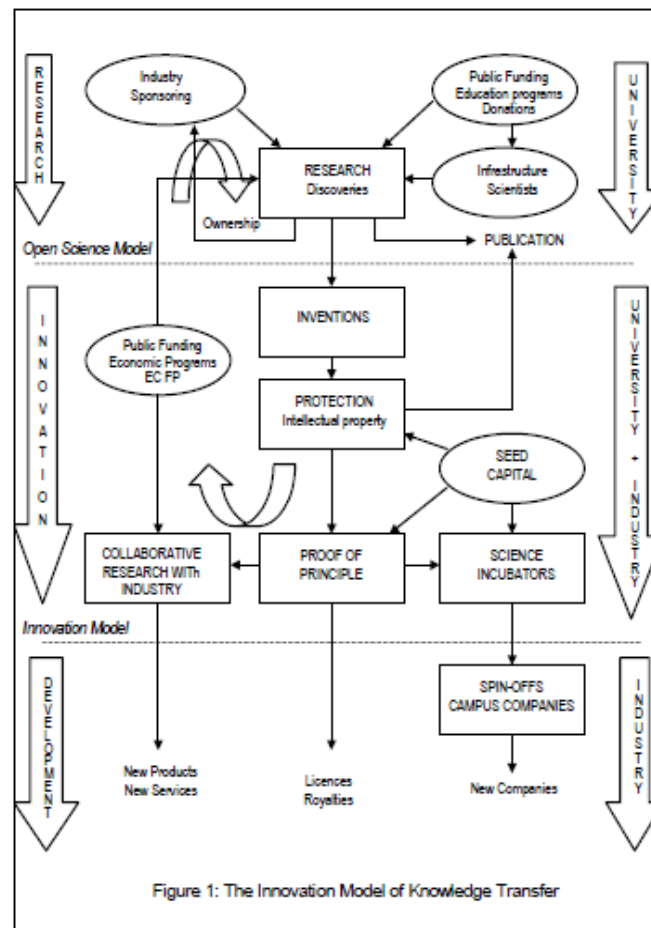
Figure 1: Innovation Model of science transfer.

The "open science model" can be considered as the classical knowledge transfer model used by full funded education and research organizations (e.g. universities). The principal idea hereby is, these organizations receive two kinds of funding

- **Industrial sponsoring** for applied or basic research for an industrial partner.

- **Public funding**, for generation of new knowledge/approaches/concepts for universal value to science and the public.

In both cases the research organization does not retain any intellectual properties. In case of industrial sponsoring, the IPs are transferred directly to the sponsor, while in case of public funding, the IP are provided to the public by publication (e.g. peer-reviewed conference and journal papers).

However, in the past this model has shown drawbacks. One problem is the visibility of potential innovation by new research results to the industry. It is very difficult to the industry to be aware of all new achievements from academia since there is a huge number of published papers and journal each year. And sub-sequently it is very difficult to them to bridge the gap between basic research results, to new products, solutions, and applications.

As a consequence the industry has realized that there is a need for IPR management and pro-active transfer of basic research achievements to new applications by the research organisations.

To push the pro-active innovation by the research organizations, the "innovation model" has been proposed as an enhancement of the classical "open science model". This model basically inherits, that the research organizations (universities and non-profit research organizations) should protect their inventions and IPRs, on one hand to be able to

- Offer licencing of research results to industry, and on the other hand to

- give opportunity to scientists to spin-off new companies and businesses, based on the IPs generated during research projects.

As shown in Figure 1, the frame program of the European Commission is a mechanism for supporting the innovation model, by bringing together industrial and research partners together, for improve dissemination of IPs and pushing innovation.

However, the "open science model" and the "innovation model" should not be regarded as alternatives. They are much more **complementary**. As a consequence in MobilePass both models will be supported and will be taken in to account for dissemination.

According to these models, two main kinds of activities will drive the proposed dissemination strategy:

- Scientific-oriented activities (following the "open science model": to report the results of MobilePass to the scientific community.

- Market-oriented activities (following the "innovation model"): to enhance the commercial potential of MobilePass. Hereby, "dissemination activities" are somehow also exploitation actions.

Since some activities require more preparation time then others (e.g. for system demonstration at trade fairs functional system components are required), our dissemination plan is sub divided into temporal phases to coordinate the activities depending on the maturity of the components and research results.

The dissemination of MobilePass project will be carried out in four main phases (see also DoW Sec. B 3.3.3 for more details):
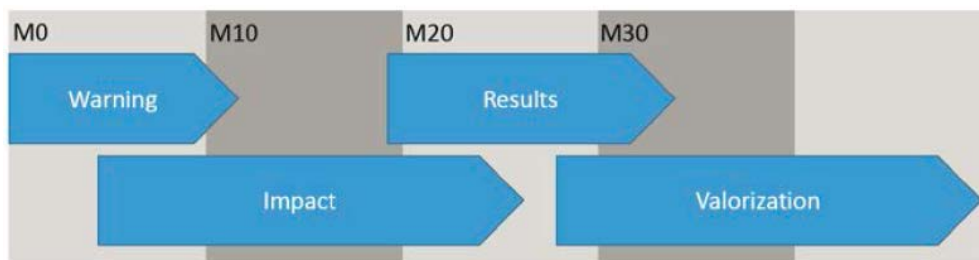

Figure 2: The four phases scheduled for MobilePass.

- Phase 1 - Warning: As described in the DoW, during the first 12 months of the project the objective was to let people know about the project and especially to create general awareness about project objectives and expected results. Accordingly, during the first year the project as such, as well as specific technology aspects have been presented on conferences, congresses and workshops (dedicated to biometrics, border control, standardisation of passport control procedures, etc.). Elaboration of brochures, preparation and hosting of the project web site was also an important task during this phase.

- Phase 2 – Impact: During the second project year (currently ongoing), the main objective is to use the increased general awareness created about the project during the first phase to expose mainly elaborated use cases in order to increase the potential impact of the MobilePass project's results. Prototypes and elaborated use cases will provide the main materials for this communication phase. Participation in workshops will boost the communication process. The primary goal is to increase the impact through the external collaboration partners. Just as an example, in the second project year, an invited follow up presentation of the project at the EAB-RPC workshop in Darmstadt/Germany has been given, reporting recent achievements on touchless biometrics capturing. Such invited follow-up presentations shows the increased awareness of the project in the border control and biometrics community.

- Phase 3 – Results: During the last project year (starting with M19, November 2015), the main objective will be to use the general awareness created about the project during the second phase to expose results in order to attract potential customers of the MobilePass project's results. Prototypes and a demo will provide the main materials for this communication phase. Apart from the participation in the workshop, congress and the conference, it will also be targeted to start publishing in journals.

- Phase 4 – Valorisation: After the end of the project duration, demonstration for "specific audience" will be built. At the same time, the final scientific valorisation of the project will be assumed by publications in national / international journals. The primary goal is to attract potential customers and investors.

Phase	Project months	Types of information	Types of audience	Types of dissemination channel	Communication goal (priority list)
1	0-12	• Objectives of MobilePass • Expected results of MobilePass	• General technological, research and academic communities • Potential end-users	• Conferences, workshop, congress • Brochure and poster • Web site	• General visibility • Attention by Academic Community • Attracting potential collaborators • Contributions to Standardisation Groups
2	12-24	• Demonstration and prototype • Presenting elaborated use cases of MobilePass	• Specific technological, research and academic communities • Potential end-users	• Web site • Standardisation committees • Special session in congress • Conferences, workshop, congress	• Attracting potential customers • Attracting potential investors • General visibility • Academic Community • Attention by • Attracting potential collaborators
3	24-30	• Demonstration and prototype • Running results of MobilePass	• Specific technological, research and academic communities • Potential end-users	• Trade Fairs • Web site • Special session in congress • Publications in journals • Conferences, workshop, congress	• Attracting potential investors • General visibility • Attracting potential customers • Attracting potential collaborators
4	30-...	• User oriented demonstration • Final results of MobilePass	• End-users and institutional organizations • Specific technological, research and academic communities	• Trade Fairs • Demonstrations • Publications in journal or press • Standardinsation Committees	• Attracting potential customers • Attracting potential investors

Since the dissemination plan as proposed in the DoW is basically on time, there are no significant changes to report at this point. However, we would like to highlight, that actions regarding exploitation of results started in M18, but will be strengthened right after availability of the first integrated prototype device (approx. available by January 2016).

2.2 Exploitation Strategy

As a recapitulation of the strategy described in the DoW, we assume that all partners are interested in similar exploitation opportunities, although with different focuses and/or applications. This is indicated in Figure 3. This figure can be summarised as follows:

Depending on the overall aims of each partner, three different market access strategies are pursued:

1. Basic Technology Push (for basic technology & know-how transfer markets)

2. Technology Push/Market Pull (regarding sub-supplier market for biometric system components), and

3. Market Pull regarding mobile full products for border control systems (security equipment markets)

The following figure shows the relationships of this three market access strategies as a kind of "collaborative supply chain". This relationship has already been presented in the DoW of MobilePass and is integrated in this report as reminder of the overall exploitation concept.

The basic idea behind this concept is, that this chain do not include exploitation to MobilePass partners only, but do also take into account technology transfer and exploitation of results (sub-components, know-how, etc.) also to other scientific and commercial partners.
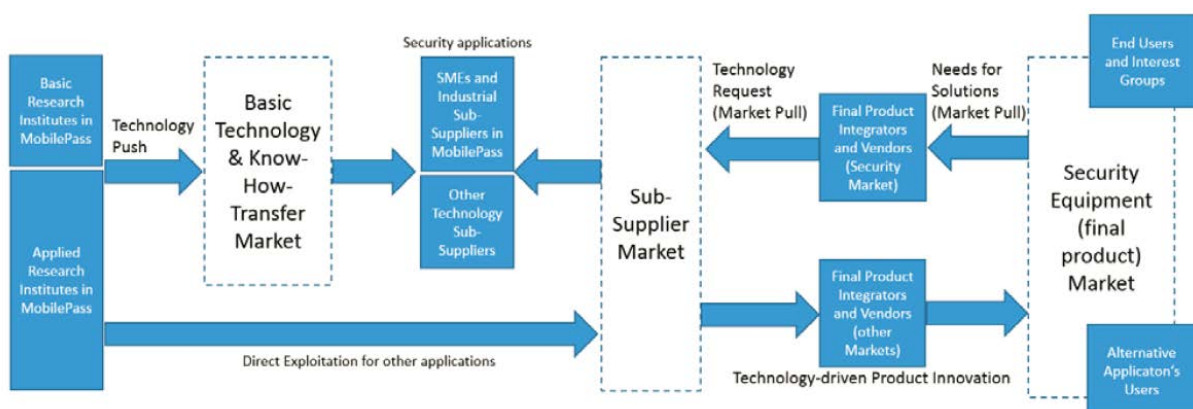

Figure 3: Exploitation channels and concept in MobilePass.

To give a compact overview about the exploitation strategies proposed in the DoW, in comparison to actions carried out during the last 18 months, the following table presents statements of the DoW (left) with comments of results and achievements in the first phase of the project.

Participant's perspective (blue boxes in Figure 3)	
DoW statements	**Actions carried out / Achievements**
For basic research institutions (University Carlos III, Madrid), but also Fraunhofer and AIT) the "scientific market" is an attractive exploitation target: success here leads to follow-up research projects, better teaching opportunities, enhanced reputation and networking in the scientific community which subsequently enables a better knowledge transfer to industry. However, even basic research results are in general still quite far away from commercial exploitation, in the last decades companies are more and more involved also in scientific communities, e.g. by sponsorship of conferences or research institutions, by set up of own corporate research departments and establishing partnerships to university research groups, or just by visiting symposia, workshops and research conferences. This "know-how-transfer market" is important for establishing excellence of basic research institutions and international visibility of European academia.	Research partners (Fraunhofer, AIT and UC3M) were quite active in pushing knowledge transfer and networking with scientific community during the last 18 month. In particular in the biometrics community several new contacts to researcher have been established. Main events for knowledge transfer were the BioSig and EAB-RPC conferences as well as the IEEE AVSS conference.

With respect to basic research dissemination and exploitation, we would like to highlight very high quality publications on face image analysis at renowned conferences like the CVPR2015 (workshop on Workshop on Analysis and Modeling of Faces and Gestures) and CVR 2015.

Plsease find below a detailed list of all scientific papers published. |
| In addition to basic research, **Applied research / technology transfer institutions** (AIT, Fraunhofer) learn and consolidate new technologies and their practical aspects which can be coined into know-how exploited as technology consulting or sub-components (prototypes, etc.) for early adopters or for end users; As shown in Figure 3, such institutes also mainly address the know-how-transfer markets based on a technology push strategy. In contrary to basic research institution, AIT and FhG are also carrying out sponsored research & | Exploitation activities of results at "applied research"-level (which means results of mid-level maturity) started approx.. in Sept. 2015. This because first prototypes and components to show have been set up at this time and presentations to potential industrial partners are now possible.

At the IEEE AVSS, MobilePass contributes to the 2nd Industrial Surveillance Day (Expo), presenting a preliminary device for touchless face and fingerprint capturing. (see more details |

development for system integrators directly, which is quite unusual for many universities of basic researcher. However, to avoid conflicts of interest on the Sub-supplier markets between applied research partners and industrial sub-supplier, on one hand project results related to the envisioned mobile passport validation device will be exploited (as far as possible) together with dedicated MobilePass partners. On the other hand, exploitation of research results adapted to other applications (e.g. access control systems, multimedia, etc.) is also pushed by the applied research partner in parallel. This allows for a broader dissemination and exploitation of the achieved results.

on this action below).

Also, a first design study of the MobilePass device has been presented at the EAB-RPC 2015 event in Darmstadt.

In addition, first meetings with potential partners for later dissemination took place in 2015, e.g. with Innovatrics, Morpho, rubicon IT, and German eForensics.

Since at beginning of 2016 a first integrated prototype should be available, exploitation activities will be significantly strengthen. In particular, trade fair attendance of MobilePass project partners are planned (e.g. at Security Messe Essen or similar).

For **SME's** (Videmo, Regula, ITTI), software and hardware modules can be integrated into existing proprietary prototypes as well as in the MobilePass demonstration system. As a consequence innovative approaches can be investigated in this early stage of research and development. Success in proof-of-concepts and evaluations of experimental systems will enable these partner to take decisions about future innovation and to perform technology push exploitation on sub-supplier markets. Hereby on one hand exploitation is carried out indirectly, through component integration of the partner's future full products. For such kind of exploitation licensing models will be established based on the consortium agreement. On the other hand the sub-supplier aims to provide components also to other system integrators and interested companies which will hopefully emerge during the project lifetime. Basically, the sub-supplier have a key role in our exploitation strategy, since due to the possibility of broad exploitation of components and system modules an "amplification of dissemination and exploitation" to different application areas and

Aspects of module integration for direct exploitation of results through industrial partners (of the consortium) has not be covered yet, since integration work is ongoing work at moment.

As a consequence, these aspects will be in focus during the second phase of the project (M18-M30), as well as for the time after the project.

products may be possible.	

Markets' perspective (white boxes in Figure 3)	
DoW statements	**Actions carried out / Achievements**
Basic Technology and Know-How-Transfer Market: For this market the research partners aim to use the results in MobilePass to improve their expertise and scientific portfolio mainly for exploitation as sponsored R&D (consulting, feasibility studies, demo system development, etc.). Hereby, in practice the results are not carried our directly, but only as background know-how of the research partners. As a consequence R&D projects are typically performed as sponsored research projects, with individual financing models. A direct relationship to results of MobilePass are not possible. In contrary, in case of exploitation possibilities of software or algorithms investigated and developed in MobilePass a licensing model should be of advantage on this market, since additional efforts for development, integration and support may be provided by sub-supplier to achieve a mature level for further exploitation of the components.	As stated in the description of work (on the left), know-how and basic technologies obtained during MobilePass cannot be disseminated in direct way, but indirect through project-oriented R&D businesses or non-directly related new product developments. So, aspects of exploitation of such knowledge and technologies will not be discussed in too much detail here. Howerver it should be mentioned, that several basic technologies have been investigated by the R&D partners, in particular related to • embedded vision platforms • mobile camera system integration • biometric data capturing • standardisation of biometric verification • embedded system security and communication. The generated know-how and the components allow the R&D partners to start new business cases and attract new cooperation partners for contracted research or product development.
Sub-Supplier Market: For this market both software/hardware components but also functional sub-systems (e.g. passport reader, face verification, fingerprint validation module, etc.) are in scope as possible results of MobilePass. For both, long-term supplier contracts, OEM licensing, as well as support	As mentioned before, exploitation of modules is in main focus of partners in MobilePass. However, prototype modules should be available by begin of 2016. So, advanced expoitation activities will be reported in the second version of this document (D8.3).

agreements are typical models for exploitation and commercialization, which are also in scope for MobilePass. Besides the mentioned impacts, the technological modules can be used for other applications.

Two of many examples are: stereo camera technology can be used as sensor in industrial applications; video based face recognition can be used in other surveillance scenarios, but also in medical/health applications (privacy-aware patient video monitoring) as well as ambient assisted living (AAL, for privacy-aware video monitoring at home). This shows that the project has also a huge technological impact beside the proposed application on mobile border control. The sub-supplier partners as well as the applied research institutes are key-partners for this kind of exploitation.

Final Product Markets: System integrators and device manufacturer (G&D) and Indra) are in charge of exploitation of results at final product markets. For this kind of exploitation a reference system as proof of concept is essential. The MobilePass reference system can be incorporated in the solutions portfolio of INDRA Border Control Solutions and G&D's mobile device solutions and border control solutions. They expect participation and success in more public tenders due to better technology and to gain market share in Europe and world-wide. Prototypes of such systems can be shown at trade-fairs and conferences. Other partners benefit from license agreements (SMEs, research partners) and from licensing their technology beyond the mobile border control equipment market. Border authorities benefit by direct access to the technology and additional information for their procurement process. The commercial conditions of common exploitation of the research results will be negotiated during the project lifecycle.	Final product markets are also still in scope of MobilePass consortium. In fact, this market is the one for the "joint exploitation" while the others can be regarded as "exploitation by each partner independently".

However, MobilePass will be able to address this market at earliest by mid of 2016 (final phase of the project), since integrated prototype device will not be available before.

So, also regarding activities related to "final product exploitation", the consortium will be able to report first results in the second version of this report (D.8.3) |

Further Exploitation trough Standardization Contributions to the standardization activities by ICAO, CEN; ISO will (beside the other dissemination activity) guarantee the impact also beyond the involved project partners. Especially the focus on mobile devices in the context of security applications could be beneficial to the standardization community and the industry following them. Participation of end-users in the project will ensure the applicability and acceptability of solution to be standardized.	MobilePass partners were very active in contributing to standardisation groups related to border control procedures and biometrics. Partners from AIT and UC3M have been invited to contribute to CEN TC224 Working Group 18 (Bernhard Strobl of AIT) and to ISO/IEC JTC1/SC37 Biometrics (Raul Sanchez Reillo of UC3M).

3 Report of Dissemination and Exploitation Activities (M1-M18)

3.1 "Online" Dissemination Activities

3.1.1 Project Website, Newsletter/Flyers / Promotional Video

Please see Deliverable 8.1 "Deliverable 8.1 Website, Project Brochure, Newsletter, Project CI and Guidelines", submitted on 30/12/2014.

As an update to the dissemination channels set up as described in D8.1, in the last month a newsletter channel has been set up. A first newsletter was distributed on 2015/07/31 with basic information on MobilePass. A second newsletter is scheduled for 2015/11/30, containing information on preliminary MobilePass device.

Also, for general dissemination purposes, in particular for trade fairs, conferences and expos, project posters have been designed by Fraunhofer IOSB. The first one is a project overview poster, for presentation of project goals and challenges (Fig. 4a). Based on this reference layout, project partners are able to designed further technology or research topic specific posters for detailed presentations. (e.g. Fig. 4b – AVSS Expo Poster of Fraunhofer IOSB)

Figure 4: Project overview poster designed for general dissemination and PR activities (left). Example for adaptation of the template for technology presentations (right).

3.2   Scientific Dissemination Activities

3.2.1   Publications at Research Conferences

Name of activity	Conference Paper at 12th Conference on Computer and Robot Vision (CRV), Halifax Canada, 2015/06/03
Responsible partner	Fraunhofer IOSB
Relevant topic	MobilePass: 3D vs. 2D: On the importance of registration for hallucinating faces under unconstrained poses, by Chengchao Qu, Christian Herrmann, Eduardo Monari, Tobias Schuchert, and Jürgen Beyerer
Audience	Academic

Web link	http://www.computerrobotvision.org/
Comments	Double blind reviewed conference paper publication

Name of activity	Conference Paper at IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 6th Workshop on Analysis and Modeling of Faces and Gestures (AMFG), Boston, MA; USA 2015/06/08
Responsible partner	Fraunhofer IOSB
Relevant topic	MobilePass: Towards robust cascaded regression for face alignment in the wild, by Chengchao Qu, Hua Gao, Eduardo Monari, Jürgen Beyerer and Jean-Philippe Thiran
Audience	Academic
Web link	http://www.pamitc.org/cvpr15/
Comments	Double blind reviewed conference paper publication

Name of activity	IEEE Int. Conf. on Advanced Signal- and Video-based Surveillance (AVSS), Karlsruhe / Germany, 2015/08/25
Responsible partner	Fraunhofer IOSB
Relevant topic	Towards Mobile and Touchless Fingerprint Verification, by Christof Jonietz, Eduardo Monari, Heiko Widak, and Chengchao Qu
Audience	Academic / Industrial / Authorities
Web link	http://avss2015.org/workshop-track-3-border-control-and-biometrics/
Comments	Double blind reviewed conference paper publication

Name of activity	GI/IEEE 14th International Conference of the Biometrics Special Interest Group (BIOSIG) on September 09-11, 2015
Responsible partner	Fraunhofer IOSB
Relevant topic	Towards Touchless Palm and Finger Detection for Fingerprint Extraction with Mobile Devices, by Christof Jonietz, Heiko Widak, and Eduardo Monari
Audience	Academic
Web link	http://fg-biosig.gi.de/archiv/biosig-2015/program.html
Comments	Double blind reviewed conference paper publication

Name of activity	National Symposium on Telecommunications and Computer Communications, Cracow, September 16-18, 2015
Responsible partner	ITTI
Relevant topic	IT audit as a procedure to assess a security level of the infrastructure by Henryk Gierszal, Jakub Radziulis, Piotr Bojanowski, Krystyna Urbańska, Rafał Renk
Audience	Academic and industry
Web link	http://kstit2015.kt.agh.edu.pl/
Comments	Double blind reviewed conference paper publication. The paper was presented as a poster during two poster sessions

Name of activity	The 48th Annual IEEE International Carnahan Conference on Security Technology
Responsible partner	UC3M
Relevant topic	Strengths, Weaknesses and Recommendations in Implementing

	Biometrics in Mobile Devices
Audience	Academic
Web link	http://www.iccst2014.org/
Comments	Reviewed by the Technical Program Committee

3.2.2 Journal Papers / Articles in Magazines

Name of activity	Telecommunication Review - Vol. LXXXVIII - Telecommunication News - Vol. LXXXIV
Responsible partner	ITTI
Relevant topic	IT audit as a procedure to assess a security level of the infrastructure by Henryk Gierszal, Jakub Radziulis, Piotr Bojanowski, Krystyna Urbańska, Rafał Renk
Audience	Academic and industry
Web link	pp. 1514-1517 DOI: 10.15199/59.2015.8-9.121
Comments	The paper was presented as a poster during National Symposium on Telecommunications and Computer Communications, Cracow, Poland, September 16-18, 2015

3.2.3 Technical Workshops

Name of activity	Presentation at PSCE conference Bucharest 2013/10/29
Responsible partner	AIT
Relevant topic	FastPass and MobilePass: two European research projects for next generation border control systems
Audience	Academic / Industrial / Authorities

Web link	http://www.psc-europe.eu/index.php?id=416

Name of activity	FRONTEX ED4BG Exhibition Warszawa 2014/05/22
Responsible partner	AIT, ITTI
Relevant topic	MobilePass Project Exhibition
Audience	Industrial, authorities, national border guards
Web link	http://www.ed4bg.eu/home
Comments	Liaison request to ABC4EU project coordinator was made

Name of activity	FRONTEX ED4BG Workshop Warszawa 2014/05/22
Responsible partner	AIT
Relevant topic	MobilePass - A secure, modular and distributed mobile border control solution for European land border crossing points
Audience	Authorities
Web link	…
Comments	Several questions/comments had been raised by the authorities; comments also included the idea to make contacts to the eMOBIDIG group Project posters and brochures were being distributed

Name of activity	EAB-RPC Workshop Darmstadt 2014/08/09

Responsible partner	AIT
Relevant topic	MobilePass- Towards a better mobile solution for Border Guards
Audience	Academic / Industrial / Authorities
Web link	http://www.eab.org/events/program/69

Name of activity	8th Conference on Computer, Privacy and Data Protection, Brussels 2015/01/21
Responsible partner	UNI-MERIT
Relevant topic	Biometrics in border management: the issue of human bodily differences
Audience	Academic / Industrial / Authorities
Web link	…
Comments	Panel Session Assessing the societal impact of Automated Border Control Gates

Name of activity	SMi's 8th annual Border Security conference, Rome 2015/02/18
Responsible partner	AIT
Relevant topic	MobilePass - towards a better mobile solution for Border Guards
Audience	Academic / Industrial / Authorities
Web link	…
Comments	…

Name of activity	AVSS Conference Industrial Surveillance Day (Invited Talk) Karlsruhe / Germany, 2015/08/25
Responsible partner	AIT
Relevant topic	A distributed mobile solution with three components: a Capture/Display device a Fullpage Passport scanner and a Central system
Audience	Academic / Industrial
Web link	http://avss2015.org/program/august-26-2nd-industrial-surveillance-day/
Comments	Impressions from IEEE AVSS 2015 – 2nd Industrial Surveillance Day (Oral Session)

Name of activity	EAB - RPC 2015Darmstadt / Germany, 2015/09/07
Responsible partner	AIT
Relevant topic	Mobile Border Control Requirements, Challenges and potential Improvements
Audience	Academic / Industrial
Web link	http://eab.org/events/program/79
Comments	Impressions from EAB-RPC 2015

Name of activity	EAB - RPC 2015 Darmstadt / Germany, 2015/09/07
Responsible partner	Fraunhofer IOSB / VIDEMO
Relevant topic	Towards Contactless Biometric Feature Verification for Mobile Border Control, by Eduardo Monari and Keni Kernardin
Audience	Academic / Industrial / Authorities
Web link	http://eab.org/events/program/79
Comments	At EAB-RPC workshop Videmo and Fraunhofer IOSB gave a talk on touchless face and fingerprint capturing with mobile devices. During the talk results from WP4 and WP5 have been presented to the audience.

Name of activity	EAB - RPC 2015 Darmstadt / Germany, 2015/09/07
Responsible partner	UNI-MERIT
Relevant topic	Responsible Innovation in Mobile Border Management: Social and Ethical Aspects Research
Audience	Academic / Industrial / Authorities
Web link	http://eab.org/events/program/79

Name of activity	8th Conference on Computer, Privacy and Data Protection, Brussels 2015/1/21
Responsible partner	UM-MERIT
Relevant topic	Biometrics in border management: the issue of human bodily differences (Panel session: Asessing the societal impact of Automated Border Control Gates) by Irma Van der Ploeg

Audience	Academic / End-User
Web link	http://www.cpdpconferences.org/

Name of activity	Jornadas de formación en Argelia sobre el funcionamiento y manejo de los puestos fronterizos aéreos y marítimos y gestión de riesgos en España, 9/6/2015, Algeria
Responsible partner	MIR-DGP, José María Peche
Audience	End-User

Name of activity	Conferencia OSCE sobre Amenazas Transnacionales en el Mediterráneo, 6/1/2015, Monaco
Responsible partner	MIR-DGP, José María Peche
Audience	End-User

3.2.4   Contributions to Standardisation Committees

Partners of the MobilePass consortium are active in standardisation group, CEN TC 224 (Technical Committee), WG 18 (Working Group), 9 member states are represented today in this group: Austria, France, Germany, Italy, Norway, Finland, Spain, Switzerland, UK and EU Organisation Frontex.

The TC 224 deals with "Personal identification and related personal devices with secure element, systems, operations and privacy in a milti sectoral environment"

The WG 18 within TC224 deals with "Biometric application profiles for law enforcement and border control authorities using portable identification systems"

After MobilePass presentation and discussions in the WG18 a new topic was raised: what should be the minimum information given to the border guards? It was not clear and a whole bunch of questions had been raised. The topic was formulated with "Border Check Minimal Information Display". Questions which can have an impact in standardisation activities are:

What is 1st line and what is 2nd line ?

What is silent alarming ?

What is the definition of the "workflow" of the border guard ?

What could be a display hierarchy ?

Standardisation needed for symbols used ?

For the forthcoming EES: should be the face of the last entry displayed ?

What is the information to raise borders guard awareness

- match, but with a very low score
- no hitlist match, but a very similar name

Possibility of English in the user interface

Standardisation needed for FRONTEX joint operations

Expand the scope of the standard also to necessary user interface/interaction ?

- trigger silent alert
- additional checks inquiry
- communication with 2nd line, handover
- accept, reject

MobilePass did a proposal to contribute (also editing) for an emerging TS (Technical Specification). It is expected that the acceptance of a NWIP will be accepted in one of the next CEN TC224/WG18 meetings.

Also our partner UC3M is active in and ISO/IEC JTC1 SC17 and SC37 (Subcommittees).

The following list shows activities related to MobilePass carried out through these standardisation groups, during M1-M18 of MobilePass project.

Name of activity	CEN TC224 Working Group 18, Madrid 2014/10/09
Responsible partner	AIT
Relevant topic	MobilePass- Project Overview/Presentation
Audience	Academic / Industrial / Authorities
Web link	-
Comments	Presentation of MobilePass Project, Introduction,

Name of activity	CEN TC224 Working Group 18, Vienna 2014/12/017
Responsible partner	AIT
Relevant topic	Draft TS document N0244 (Biometrics on Mobile Devices).
Audience	Academic / Industrial / Authorities
Web link	-
Comments	Contribution to with 4 pages of comments concerning architecture.

Name of activity	CEN TC224 Working Group 18, London Winchester 2015/10/19
Responsible partner	AIT
Relevant topic	NWIP (New Work Item Proposal)
Audience	Academic / Industrial / Authorities
Web link	-
Comments	AIT proposed a (NWIP) New Work Item Proposal regarding "Border Check Minimal Information Display" using preliminary MobilePass results. The NWIP is supported by Finland, Norway, Italy, France, Austria, Spain, Germany. Also FRONTEX wants to support which is not a national body but is very interested in giving inputs and reviewing the relevant documents. 5 supporting countries are enough to establish a NWIP.

Bernhard Strobl from AIT would be the preferred editor for the new TS (technical specification) document. |

Name of activity	13th e-MOBIDIG EU working group, Rotterdam, Netherlands, 2015/07/08
Responsible partner	AIT
Relevant topic	MobilePass- Project Overview/Presentation
Audience	Academic / Industrial / Authorities
Web link	http://www.e-mobidig.eu/Meeting-report,318.html
Comments	At the meeting two new members for the Project Advisory Board where recruited: Szabolcz Horvath from FRONTEX Stefan Wendt (resp. Mathias Grell) from the Bundespolizeipräsisium, Competence Center IT

Name of activity	ISO/IEC JTC1/SC37 Working Group, Salamanca, Spain, 21/9/2014
Responsible partner	UC3M, Raul Sanchez Reillo; Belen Fernandez
Audience	Academic / Industrial / Authorities
Web link	-

Name of activity	ISO/IEC JTC1/SC17 Cards and personal identification, Salamanca, Spain, 21/9/2014
Responsible partner	UC3M, Raul Sanchez-Reillo; Belen Fernandez-Saavedra
Relevant topic	MobilePass- Project Overview/Presentation
Audience	Academic / Industrial / Authorities
Web link	-
Comments	Presentation of MobilePass Project

Name of activity	ISO/IEC JTC1/SC37 Biometrics, Gjovik, Norway, 22/6/2015
Relevant topic	Contribution to standards related to biometrics and mobile devices.
Responsible partner	UC3M, Raul Sanchez-Reillo; Belen Fernandez-Saavedra
Audience	Academic / Industrial / Authorities
Web link	-

Comments	Comments and contributions were provided to the following standards.
	
	• Biometrics data formats and APIs
	   o Revision of the BioAPI standard (ISO/IEC 19784)
	   o Development of the Object Oriented BioAPI project (ISO/IEC 30106)
	   o Revision of the CBEFF standard (ISO/IEC 19785)
	   o
	• Mobile devices
	   o Development of the biometric used in mobile devices project (ISO/IEC PDTR 30125)

3.2.5 Dissemination monitoring

The MobilePass website - http://www.mobilepass-project.eu/ - has been created in April 2014 and put online upon the start of the project in May 2014. This platform provides key information regarding the project like the objectives, the composition and the dissemination activities of the Consortium or the relevant facts and news linked to the project. This webpage is one of the most important communication channels with the public at large and is therefore regularly updated. The

visibility of the webpage has considerably improved along the course of the project, as shown in the figures below[2]:

Monthly history

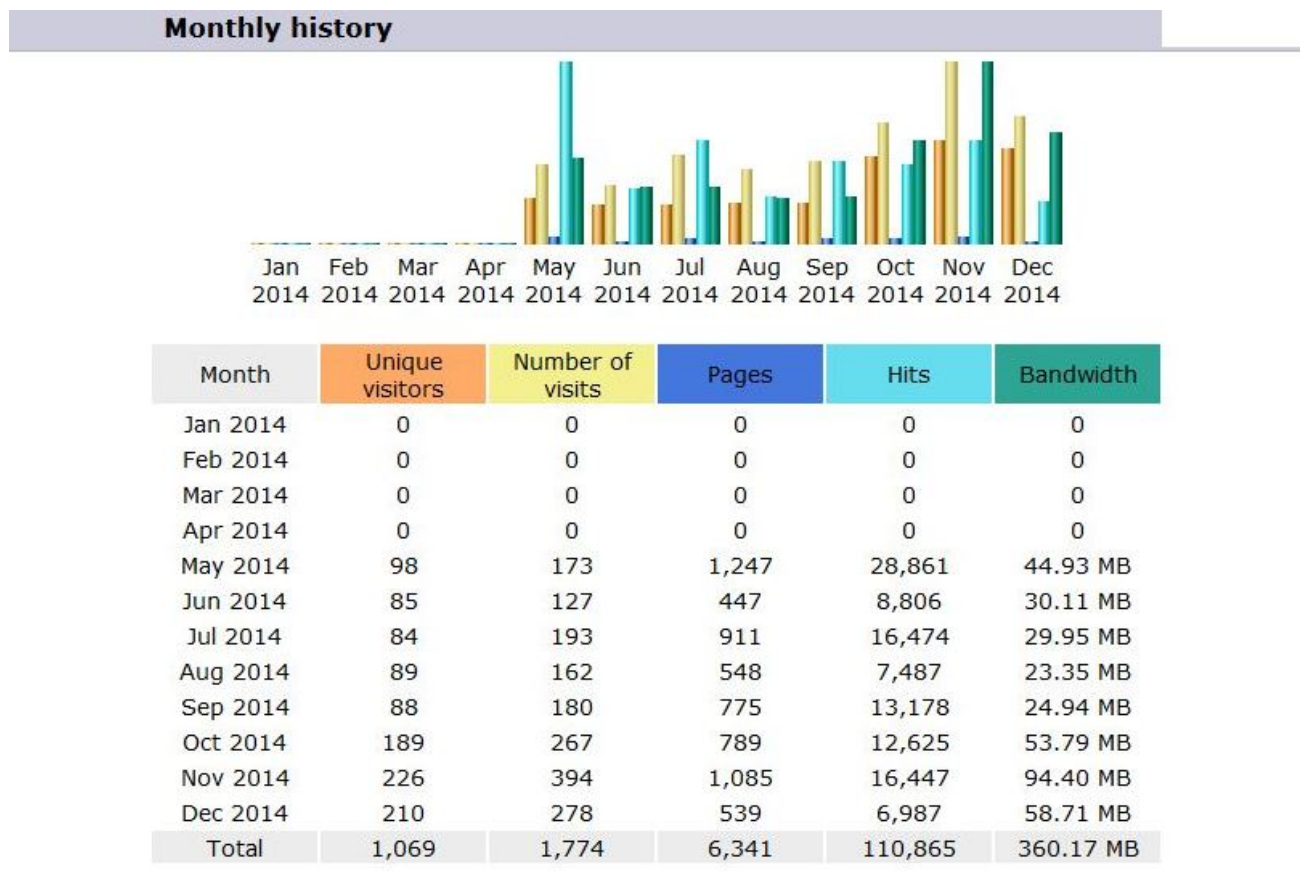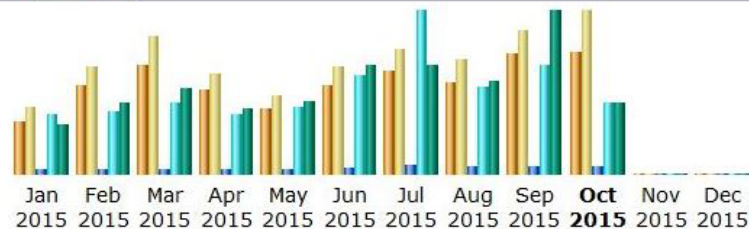| Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2014	0	0	0	0	0
Feb 2014	0	0	0	0	0
Mar 2014	0	0	0	0	0
Apr 2014	0	0	0	0	0
May 2014	98	173	1,247	28,861	44.93 MB
Jun 2014	85	127	447	8,806	30.11 MB
Jul 2014	84	193	911	16,474	29.95 MB
Aug 2014	89	162	548	7,487	23.35 MB
Sep 2014	88	180	775	13,178	24.94 MB
Oct 2014	189	267	789	12,625	53.79 MB
Nov 2014	226	394	1,085	16,447	94.40 MB
Dec 2014	210	278	539	6,987	58.71 MB
Total	1,069	1,774	6,341	110,865	360.17 MB

Figure 5: visit of the website: monthly history over 2014

[2] Source: mobilepass' webpage's statistics (accessible with password only).

Monthly history

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2015	194	246	614	8,880	50.13 MB
Feb 2015	324	388	713	9,077	72.52 MB
Mar 2015	399	503	766	10,286	88.13 MB
Apr 2015	302	363	682	8,921	67.26 MB
May 2015	240	285	574	9,878	75.20 MB
Jun 2015	322	387	813	14,379	112.26 MB
Jul 2015	376	456	1,375	23,660	111.89 MB
Aug 2015	331	418	1,117	12,877	95.01 MB
Sep 2015	437	520	1,105	15,891	165.74 MB
Oct 2015	441	589	1,114	10,350	71.97 MB
Nov 2015	0	0	0	0	0
Dec 2015	0	0	0	0	0
Total	3,366	4,155	8,873	124,199	910.12 MB

Figure 6: visit of the website: monthly history over 2015

Indeed, one sees clearly that the number of visits (in yellow) has regularly increased in 2014, with a small decrease in December. In 2015, the number of visits was even more important, starting in January with 246 (the lowest number) and coming up to 589 visits in October 2015. The number of pages visited within the website has also increased along the course of the project, which means that the visitors are generally reading the information in the different tabs of the website and don't content themselves with remaining of the home page.

Further than this, one can see in the figure 3 that a notable amount of visitors is not from the European Union but from other relevant countries like China, Russia or the United States. Thus, these statistics confirm that the project has gained an important international visibility.

Countries (Top 10) - Full list		Pages	Hits	Bandwidth	
China	cn	246	3,421	15.48 MB	
Ukraine	ua	165	165	2.08 MB	
European country	eu	149	809	9.86 MB	
Russian Federation	ru	115	557	4.20 MB	
United States	us	102	1,544	12.10 MB	
Philippines	ph	66	67	1003.67 KB	
Germany	de	62	383	5.16 MB	
Netherlands	nl	52	52	771.68 KB	
Poland	pl	17	98	483.89 KB	
Brazil	br	12	344	1.36 MB	
Others		128	2910	19.51 MB	

Figure 7: top 10 of the countries visiting the MobilePass website

The followers of the newsletter testify as well of an international visibility of the project. Indeed, the MobilePass Consortium edited its first newsletter in July 2015 via the tool MailChimp. The mailing list of followers has been developed on the basis of different stakeholders named by the partners from their own networks and has been enriched along the course of the project with subscriptions via our website. Currently, the list counts 120 subscribers from all Europe and beyond and gathers representatives from border guards, industries, PME or research institutes, which highlights the multi-disciplinary visibility of the project.

3.3   Exploitation Activities

3.3.1   Trade Fairs

Name of activity	Security Trade Fair, Essen / Germany 2014
Responsible partner	Fraunhofer IOSB / AIT
Relevant topic	Image Enhancement Technologies for Face Recognition
Audience	Industrial / Authorities
Web link	http://www.security-essen.de/impetus_provider/
Comments	Videmo and Fraunhofer IOSB presented software components

	and algorithms related to - Face capturing and tracking for access control (XS control) - Face super resolution for image enhancement

Name of activity	AVSS Conference Industrial Surveillance Day (Expo)
Responsible partner	Fraunhofer IOSB
Relevant topic	Preliminary MobilePass Device Presentation
Audience	Academic / Industrial
Web link	http://avss2015.org/author-guidelines/2nd-industrial-surveillance-day/
Comments	Impressions from IEEE AVSS 2015 – 2nd Industrial Surveillance Day (Expo Session)

3.3.2   Company Presentations

Name of activity	MobilePass Presentation (2015/08/27) with INNOVATRICS, s.r.o. Pri vinohradoch 82 , 831 06 Bratislava, Slovak Republic in Vienna, Techgate Tower
Responsible partner	AIT
Relevant topic	Preliminary MobilePass Device Presentation
Audience	Industrial
Web link	http://www.innovatrics.com/about-us/our-company
Comments	During the Meeting Innovatrics showed interest in using the developed hardware and software platform from MobilePass for their own fingerprint algorithms. Innovatrics will think of possible combinations where both parties will have benefit.

Name of activity	MobilePass Presentation (2015/01/29) with Morpho, Germany

	in Vienna, Techgate Tower
Responsible partner	AIT
Relevant topic	Preliminary MobilePass Device Presentation
Audience	Industrial
Web link	-
Comments	During the Meeting Morpho showed interest in the contactless fingerprint capture technology. I was agreed that in case of more results later in the project, the MobilePass Consortium should show their result to the relevant contacts within Morpho Also Morpho wants to present their contactless Fingerprint reader device (which is not mobile)

Name of activity	MobilePass Presentation (2015/09/22) with rubicon IT GmbH, Software Company Werdertorgasse 14, 1010 Wien in Vienna, Techgate Tower
Responsible partner	AIT
Relevant topic	Preliminary MobilePass Device Presentation
Audience	Industrial
Web link	-
Comments	During the meeting it turned out that rubicon is involved in a national funded project for Identification purposes done with a smartphone. They are writing SW for the user Interface. It would be helpful for this consortium to get access to the acquired fingerprint database in the MobilePass project. MobilePass Coordinator will check it access is possible

	(anonymized data)	

3.4 Planned Activities for M18-M30

Research Conferences		
IEEE AVSS 2016 (Colorado Springs)	Submission of at least one conference paper related to face capturing/image enhancement - in particular, real-time aspects for mobile devices.	Fraunhofer IOSB
GI BioSig Conference Darmstadt	Submission of at least one conference paper related to face- and fingerprint capturing on embedded device	Fraunhofer IOSB
The IEEE International Carnahan Conference on Security Technology (ICCST) 2016 (Orlando, Florida, US)	Submission of at least one conference paper related to the adaptation of algorithms for processing touchless fingerprint images	UC3M
International Biometric Performance Testing Conference 2016 (NIST, Gaithesburg, Maryland, US)	Submission of at least one conference paper related to MobilePass project	UC3M
IEEE International Conference on Identity Security and Behaviour Analysis (ISBA) 2016 (Sendai, Japan)	Submission of two conference papers related to the usability and security analysis of mobile applications and fingerprint technologies	UC3M

Journal Articles		
IET Biometrics, Special issue of "Mobile Biometrics"	Submission of a journal article related the impact on biometric performance when using small fingerprint scanners in mobile devices. Provisionally accepted (subject to revision)	UC3M

Trade Fairs		
Security Essen / Germany 2016	MobilePass Prototype Presentation	AIT / Fraunhofer IOSB / Videmo
GPEC Leipzig / Germany 2016	MobilePass Prototype Presentation	AIT / Fraunhofer IOSB

Technical & Standardisation Workshops		
CEN TC224/WG18 Meeting 3.-4.March, Berlin	Submission and acceptance of a new NWIP	AIT, U3CM, INDRA
CEN TC224/WG18 Meeting 2.-3.June, Madrid	Work on the new TS (document number TBD)	AIT
CEN TC224/WG18 Meeting 15.-16. September Vienna	Work on the new TS (document number TBD)	AIT
ISO/IEC JTC1 SC37	Contributions to 3rd PDTR 30125, Information Technology — Biometrics used with mobile devices	UC3M

Name of activity	Open Mobile Platform for Border Control activities
Responsible partner	AIT
Relevant topic	Open Platform (Website) with relevant information for the

	MobilePass device, operating system, electronics, Video accelerators, mechanics, allgorithms
Audience	Academic / Industrial / Authorities
Web link	http://www.MobilePass-project.eu

4 Conclusions

We designed an informative and attractive homepage and a DMS-Server for data exchange among partners. The presented layouts of the webpage and the DMS Server will continually evolve within the project in order to fit optimally to the partners' needs and the dissemination plan.

We also presented the preliminary of the MobilePass brochure. This brochure is intended to give the reader a rough overview of the project and direct him to the more actual homepage.

During the project it may be useful to update the brochure. First results as well as use cases and upcoming events may be demonstrated already in the brochure. Therefore the brochure is permanent under review, if it is adequate for the current and forthcoming state of the MobilePass project.

References

[1] MobilePass Website URL: http://mobilepass-project.eu/

[2] MobilePass Flyer URL: http://www.mobilepass-project.eu/sites/default/files/MobilePass%20Flyer.pdf

[3] MobilePass Promotional Video on YouTube
URL: https://www.youtube.com/watch?v=LXSuojHBwo8#t=14

[4] European Commission, "How to write clearly",
URL: http://ec.europa.eu/translation/writing/clear_writing/how_to_write_clearly_en.pdf