



Palestinian Grassroots Anti-Apartheid Wall Campaign - [www.stophewall.org](http://www.stophewall.org)

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## Annex

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# Projects under scrutiny

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### **Risks of projects funded through FP7 and Horizon2020 with the participation of Israeli military companies**

The European Coordination of Committees for Palestine (ECCP) has provided most of the information used in this documentation on a number of projects already funded or approved for funding by the EU, in which Israeli military and security companies participate.

ECCP has collected information about 10 projects with participation of Israeli military or security companies that show high probability of dual use and misuse/malevolent use of research results.

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## 1. Case Study (current project) : FLYSEC

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<b>Generic Description:</b> Topic: Critical Infrastructure Protection topic 6: Improving the aviation security chain Horizon2020: Secure societies - Protecting freedom and security of Europe and its citizens Date: 2015/05/01 to 2018/04/30	<b>Israeli military company participating</b>  Elbit Systems	<b>Technology developed under Horizon2020</b>  - technologies on video surveillance, intelligent remote image processing and biometrics  - big data analysis, open-source intelligence and crowdsourcing
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### Initial indicators of possible dual use, misuse or mission creep

- *The illegal Wall:* Elbit has developed the Elbit Security Systems ("ELSEC") for outdoor and indoor Airport and Seaport security. It uses a combination of two types of electro-optic surveillance systems, including the (LORROS™) system<sup>1</sup> that is being used as part of Israel's illegal Wall<sup>2</sup>.
- *Israeli military aggressions, including war crimes:*
  - Elbit's remote image processing technology is being used at the Wall, in its robotics, UAVs and UGVs. All are used by Israeli military in its repeated military aggressions, during which according recent UN reports it commits war crimes and possibly crimes against humanity.
  - Just as with the Flysec project, Israeli warfare is since the 2014 aggression on Gaza based on 'digital warfare'<sup>3</sup>, where real time information sharing between forces or actors is at the core of the concept. Elbit Systems participates with contracts in this development.
  - Elbit Systems' Battle Management System (BMS) used by the IDF is an essential tool to virtually any combat vehicle mounted sensor or weapon system forming coordinated battle teams that perform their tasks with optimum precision. In addition to its combat networking capabilities, this "super" system of systems provides commanders and crewmen with simplified operational interface, enhanced situational awareness and data communication capabilities.

### Other issues:

#### *Risk of discrimination:*

- In the FLYSEC Secure Tunnels scenario the passengers are differentiated to Trusted/Pre-Registered, Normal and Enhanced screening passengers. The tunnel is implemented as a virtual path from the landside, through the security check and to the airside [...]
- The categorization of passengers will be based on 'behavioural analysis and innovative cognitive algorithms'.

#### *Privacy concerns:*

- The project aims at an end-to-end airport security system, which captures and merges data of passengers from airports, airlines and security.

The Consortium recognizes the risks regarding profiling and data protection and claims to find 'ethical' solutions, however, without specifying how or showing any indication that it guarantees transparency and accountability to stakeholders and civil society.

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<sup>1</sup> <https://www.elbitsystems.com/elbitmain/area-in2.asp?parent=8&num=69&num2=69>

<sup>2</sup> <http://www.grassrootsonline.org/news/blog/elbit%E2%80%99s-cruel-profit-palestinian-sufferinge>

<sup>3</sup> <http://www.jpost.com/Israel-News/New-Tech/Security-and-Defense-Israels-first-network-centric-war-375789>

## 2. Case Study (past project): OPARUS

General Description	Israeli military company participating	Technology developed under Horizon2020
Topic: Open Architecture for UAV-based Surveillance System FP7: FP7-Security Completed: 31/5/13	Israeli Aerospace Industries	<ul style="list-style-type: none"> <li>- MALE remote piloted aircraft (RPA/drone)</li> <li>- Development of segregated airspace</li> <li>- Datalink technology</li> <li>- Thermal Image Generators</li> <li>- Phase Array SAR Antenna</li> <li>- SAR Radar</li> </ul>

### Initial indicators of possible dual use, misuse or mission creep

#### Male drones:

- With ever more sophisticated drone technology, their use has been increasing in Israeli military aggressions on Gaza, including in attacks deemed in UN reports to be war crimes or possibly crimes against humanity<sup>4</sup>:
  - The Palestinian Centre for Human Rights reported that 825 Palestinians had died from attacks carried out by drones between June 2006 and October 2011.<sup>5</sup>
  - In November 2012 Israel launched 'Operation Pillar of Defence' on Gaza. According to the Gaza based Al Mezan Centre for Human Rights 201 out of 255 of these people were killed by attacks from Israeli drones.<sup>6</sup> Investigations by Human Rights Watch showed that 18 airstrikes, of which at least seven were conducted by drones, were "in apparent violation of the laws of war." Arie Egozi writing for Flight Global said of Operation Pillar of Defence: "the eight days of fighting over Gaza have brought the use of unmanned air vehicles and intelligence sensors to a peak that some Israeli sources have described as "unprecedented".<sup>7</sup>
  - The UN Fact Finding Mission on the 2014 Israeli military aggression on Gaza as well as reports by Amnesty International and others, prove the systematic use of drone technology in war crimes.<sup>8</sup>
- IAI drones (including the armed Heron drones) have been used by the IDF since 2005.<sup>9</sup>

#### Thermal Image Generators:

Col. Desmond Travers - member of the UN fact finding mission on Operation Cast Lead in Gaza in 2009, whose report has come to be known as the Goldstone report – has stated that according to his analyses, thermal imaging technologies are likely to have been used to identify high occupancy targets. Such high occupancy targets arose when Palestinians fled to relatives or friends houses in areas of Gaza believed to be safe. This usually followed when obeying instructions in leaflets which had been dropped by the Israeli Air Force to leave the area in which those leaflets had been dropped.

IAI uses its thermal Imager capacity is used as well for the construction of the Wall: The Plug-in Optronic Payload (POP), originally designed for helicopters, includes a focal plane array thermal imager and is deployed along the illegal Wall.<sup>10</sup>

<sup>4</sup> See the report of the UN Fact Finding Mission on the military aggression on Gaza 'Cast Lead' in 2009.

<http://www2.ohchr.org/english/bodies/hrcouncil/docs/12session/A-HRC-12-48.pdf>

<sup>5</sup> <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1406&context=jss>

<sup>6</sup> <https://corporatetechwatch.org/news/2014/oct/05/gaza-life-beneath-drones-part-four>

<sup>7</sup> <https://dronewarsuk.files.wordpress.com/2014/01/israel-and-the-drone-wars.pdf>

<sup>8</sup> <https://blackfriday.amnesty.org/report.php>,

[http://www.ohchr.org/Documents/HRBodies/HRCouncil/ColGaza/A\\_HRC\\_CRP\\_4.docx](http://www.ohchr.org/Documents/HRBodies/HRCouncil/ColGaza/A_HRC_CRP_4.docx)

<sup>9</sup> <http://www.airforce-technology.com/projects/heron-uav/>

<sup>10</sup> <https://icj10.stophthewall.org/israel-aerospace-industries/>

### SAR Radar:

Synthetic aperture radar (SAR) is a form of radar which is used to create images of objects, such as military targets. IAI Heron drones are equipped with this radar.<sup>11</sup>

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## 3. Other projects

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Project name	Generic description	Technology developed under Horizon2020	Initial indicators of possible dual use, misuse or mission creep
<b>AMISA</b> <b>(with Israeli Aerospace Industries)</b>	Topic: Manufacturing Process Design FP7: FP7-MMP Nanotech/materials Completed: 31/3/14	"IAI indicated that AMISA provided insight into re-architecting its Vehicle Localization System (VLS), the control subsystem of IAI's Unmanned Ground Vehicle (UGV). The new architecture will combine several components in two portions of the subsystem. No analysis is yet available as to the potential savings of this design." <sup>12</sup>	In 2008, the Guardium <sup>13</sup> was introduced by the IDF to patrol the Gazan border in order to implement the illegal siege on Gaza. It is a weaponised vehicle with no need for human physical interaction and was created by IAI and Elbit. It is around the size of a Jeep J8, weighs 1.4 tons and can go up to 80km/h for several days.  In 2015, the Border Patroller was introduced to the Gazan border, and is again a weaponised vehicle. It is again created by IAI and Elbit (in a joint venture group company called G-NIUS) and is based on the Ford F-350 Super Duty Truck. <sup>14</sup>
<b>TALOS</b> <b>(with Israeli Aerospace Industries)</b>	Topic: Transportable autonomous patrol for land border surveillance FP7: FP7-Security	- create a system in which UGVs and UAVs can keep surveillance on any given land border. <sup>15</sup> Through UUCCs (Unmanned Unit Command Centres) and Static Sensor Towers, CRATE	IAI's UGVs and UAVs are already a central part of Israeli military aggressions and military occupation. They are easily weaponised, and with this system, easily controlled. The IDF uses WiMAX technology since the 2006 aggression on Lebanon <sup>16</sup> and further knowledge on WiMAX capacity by IAI is likely to be integrated into Israeli weapons.

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<sup>11</sup> [http://www.iai.co.il/2013/18900-16382-en/BusinessAreas\\_UnmannedAirSystems\\_HeronFamily.aspx](http://www.iai.co.il/2013/18900-16382-en/BusinessAreas_UnmannedAirSystems_HeronFamily.aspx)

<sup>12</sup> [http://cordis.europa.eu/result/rcn/153479\\_en.html](http://cordis.europa.eu/result/rcn/153479_en.html)

<sup>13</sup> <http://gizmodo.com/5943055/the-g-nius-guardium-guards-golan-like-a-golem>

<sup>14</sup> <http://www.ipost.com/Arab-Israeli-Conflict/IDF-expects-UGVs-robots-to-play-ever-greater-roles-in-combat-391365>

<sup>15</sup> [http://cordis.europa.eu/result/rcn/140453\\_en.html](http://cordis.europa.eu/result/rcn/140453_en.html)

<sup>16</sup> <http://www.wired.co.uk/news/archive/2010-08/10/israeli-army-commissions-battlefield-wi-fi>

	Completed: 31/5/13	can keep record of all the facilities available to the user. UGVs and UAVs can then patrol the border, whilst the user can be a safe distance away. - WiMAX (Worldwide Interoperability for Microwave Access)	Israeli war strategies are based on incremental use of robotics <sup>17</sup> IAI already transforms combat vehicles in unmanned platforms through robotics. <sup>18</sup>
<b>QI2S</b>  <b>(with Ramon Chips LTD)</b>	Topic: Key technologies enabling observations in and from space FP7: FP7-SPACE Completed: 30/6/15	Ramon Chips develops the spaceborne Hyper-Spectral (HS) QI2S ManyCore (RC64 ManyCore) chip QI2S speeds up and develops HS imaging. This means that the HS imaging from specific areas can now be sent far quicker.	Ramon Chips is funded by the Israeli Space Agency. Israeli military strategy is based on integrating satellite communication in its digital warfare program. <sup>19</sup>  Israeli officials have publicly declared that future Israeli wars should turn 'space wars', based on satellite systems and space technologies. The establishment of a special committee for that purpose underlines the Israeli focus on this. <sup>20</sup>
<b>PROTECTR AIL</b>  <b>(with Elbit Systems)</b>	Topic: Railway Security FP7: FP7-SECURITY Completed: 28/2/14	CBRNE Detection Systems (Chemical, Biological, Radiological, Nuclear, and Explosive) protect critical national infrastructure Portable WiMesh Systems enable fast setting up of flexible, modular ad-hoc network without the need for network planning	Portable WiMesh Systems are typical dual-use technology and integrates into Elbit's communication products for the Israeli and other military forces.
<b>PPLANE</b>  <b>(with Israeli Aerospace Industries)</b>	Topic: Personal Air Transport Systems FP7: FP7-Transport Completed:	Personal Air Transport System (PATS): the ability for the general public to fly small aircraft, remote-piloted aircraft, to create planes that don't need	IAI remote controlled vehicle technology - whether in ground or airborne - is used regularly during Israeli military aggressions.

<sup>17</sup>

<http://www.jpost.com/Business-and-Innovation/Israeli-robotics-expert-West-10-years-ahead-of-enemy-in-warfare-technology-435494> , <http://www.haaretz.com/israel-news/business/.premium-1.690041>

<sup>18</sup> [http://www.iai.co.il/2013/17483-17493-en/Business\\_Areas\\_Military\\_Land\\_UGV.aspx](http://www.iai.co.il/2013/17483-17493-en/Business_Areas_Military_Land_UGV.aspx)

<sup>19</sup> <http://www.jpost.com/Israel-News/New-Tech/Security-and-Defense-Israels-first-network-centric-war-375789>

<sup>20</sup> In January 2014, the former head of the ministry of defense, Odi Shani, has announced publicly that Israel's new field of "military defense" lies in space technologies. See: <http://news.walla.co.il/item/2716520> (hebrew)

	31/10/2012	pilots; Personal Plane Ports, Remote Pilot Station.	
<b>TASS (Total Airport Security System) (with Elbit Systems)</b>	Topic: Airport Security FP7: FP7-SECURITY Completed: 31/3/14	DFMS (Data Fusion and Mediation System) TASS 2D/3D GIS (Geographical Information Systems) Application LPR (License Plate Reader) System RFID (Radio Frequency Identification) System GPS Tracking System CBRN Sensors (Radiation Monitoring) Unmanned Ground Vehicle (UGV)	The DFMS seems to carry many of the features of Elbit's Battle Management System used by the Israeli military during the 2014 Gaza military aggression.  RFID technology is since time used for military purposes <sup>21</sup> .  Elbit combines HF/VHF/UHF/Microwave radio networks with IP-based LAN and WAN networks, telephony, and satellite for integrated military communications infrastructures for a variety of applications.
<b>ALARP (with Elbit Systems)</b>	Topic: Railway Security FP7: FP7-Security Completed: 30/3/13	Automatic Track Warning System (ATWS) Train Presence Alert Device (TPAD) Wireless Mobile Terminals (MTs) Low Cost GPS Based Localisation Systems	Elbit's detectors, sensor, monitoring and data processing capacities are used among others in technology used at the Wall, the checkpoints, in its UAVs.

<sup>21</sup> <https://www.rfidjournal.com/purchase-access?type=Article&id=12046&r=%2Farticles%2Fview%3F12046>