



## Innovative solutions for Covid-19 crisis by Estonian companies

### **Smart border crossing by GoSwift**

**Product:** New innovative solution, which can make the cargo movement much quicker and easier. The solution is to introduce and implement swap of trucks at border checkpoints together with electronic booking system. It means that only national trucks and drivers are being used for pulling trailers. Drivers will work at their home countries, only trailers with the necessary documents will cross the border. Online booking system will be used to drop-off and pick-up trailers with cargo at border checkpoints.

**Relevance in crisis:** By the Covid-19, governments are taking control on people's cross-border movement. However, there is urgent need that movement of goods will continue. Around 75% of goods movement is done by land transport, using trucks. Many countries are having considerable limitations on border crossing, resulting in long queues of trucks at their borders. Trucks border crossing takes time, because of Covid-19 symptom check on drivers. Concentration of trucks at border crossing areas is high risk of Corona virus spreading first among truck drivers, then cross-border. Massive infection among truck drivers could potentially result in lack of drivers capable of continuing work and delivering goods. There is need to take off the border queues and reduce risk of Corona virus spread. With the uncertainty on cross-border movements, lots of international truck drivers are denying to take cross-border tasks.

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### **Smart pedestrian tracking by Bercman Technologies AS**

**Product:** Bercman surveillance camera-based pedestrian detection software (AIES - Artificial Intelligence Enhanced Surveillance) is a pedestrian movement monitoring solution that gives an excellent automatic overview of the presence of pedestrians in the streets to manage the city during restrictions. In addition, Bercman surveillance camera-based passenger detection software (AIES VEHICLE) is a passenger counting solution that gives an automatic overview of the number of passengers in the public transport (Train, bus, tube etc.) to manage the city transport during restrictions.

Unlike regular surveillance cameras used systems today, AIES layer gives out automated pedestrians and passengers statistics and alerts.

In current situation, the software could focus on monitoring the presence of people on the streets and public transportation in times of crisis when there are limits to their movements. This software layer can be added to ordinary city security



cameras that automatically identifies people and can also track them and show their trajectories in real-time. The system would run on cloud providing the city with a snapshot of what's happening on the streets. Such analysis provides a good overview of the performance of the measures and the behaviour of the people.

**Relevance in crisis:** In a nationwide crisis situation, it is essential that all citizens closely follow the advice and measures provided by the government to mitigate the crisis. Based on the crisis situation in Europe and US in the spring of 2020, we see a mass disregard for essential advice by people, and now is the time to learn from these lessons and perhaps be better prepared for next time. By following the advice correctly, you can survive a crisis with the least amount of damage. Software layer for city security cameras will help to get a quick and accurate overview of what's happening on the city streets in the following potential crisis situations. Based on this live data, the city can use this data to mobilize law enforcement forces in more problematic areas.

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### **Crowdsource volunteers and items by Zelos**

**Product:** Zelos is a software for mobilising large crowds of volunteers. Zelos has successful use cases for:

- community initiatives for civilian engagement (grocery deliveries to neighbours to ease burden on social services)
- disaster relief (volunteer rescue)
- medical volunteer mobilisation (civilian and professional assistance for hospitals)

Help requests can be targeted based on volunteer location, skills, or profile and service can be launched in 48 hours.

**Relevance in crisis:** With Zelos it is possible to quickly crowdsource items for a hospital, fill shifts in a shelter or help the elderly by delivering groceries. With the quick help of the volunteers, the stress on emergency services is reduced by crowdsourcing to help to cover non-urgent necessities.

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### **Long endurance smart drones by Skycorp**

**Product:** Next generation hydrogen long endurance Smart Drones. Operating in Smart City/Port sectors and integrating hydrogen technologies to enable Industry 4.0, advancing intelligent productivity and autonomous solutions for good.



**Relevance in crisis:** Drones are already used in the era of the pandemic as remote notification tool to enforce the quarantine. Drone deliveries themselves could be the only autonomous method of true social distancing for delivering necessities such as food or medicine (especially to remote areas). Additional modifications such as disinfectant spray and thermal cameras can be deployed for remote temperature monitoring and disinfecting environments or carried packages.

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### Data visualisation tool by **VizKey™**

**Product:** VizKey™ depicts large amounts of information in a graphic form and represents data by objects and their relationships. Together with the functionality of data analysis, it helps to understand what is happening, to find and identify key figures and events. A function of VizKey is queries to external databases, in current crisis situation these could be databases and sources such as travel lists, people identified and/ or infected with their families and companies, medical data of infected, isolations of infected people, isolation control (queries to banks, etc), and information on communication (telecoms). These databases are to be used for needed queries into VizKey graphs and import into VizKey database. The results could be seen on a map and used for managing the crisis.

**Relevance in crisis:** Live system would present information on virus-related objects and relations between them, quite similar to antiterrorism tracking.

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### Software security tools by **Guardtime**

#### Products and relevance:

**Secure data sharing:** To deal with the medium-term (3-12 months) medical and economic reaction to Covid-19, we need to access and share data. Helium is a secure and fully auditable data processing environment to enable third party access to sensitive data. Helium can be used by public health researchers, economists and others to rapidly combine personalized, sensitive data sets to make predictions and decisions, including across borders, while ensuring a full chain of custody for these data and full compliance with data protection regulations (e.g. GDPR).

**Remote work:** Pretty much every large organisation in the world has suddenly moved to remote work, including most governments, and may need to sustain this for many months. Our MIDA cybersecurity and cloud monitoring tool can rapidly be deployed to help a large organisation monitor and enforce security policies across a (newly) distributed enterprise. Particularly helpful to governments



with remote workers processing sensitive, personal or national security information.

**Rapid issuance of documents, certificates:** Governments are imposing quarantines, border closures and other restrictions at short notice to limit the spread of the disease. The need to do so may continue for well over a year, while commerce still needs and essential personnel (e.g. medical, food production staff) need to flow. Secure Value Documents (SVD) are digital certificates and attestations tied to a QR code that can be presented on paper or a digital screen and verified universally. SVD's can be issued at short notice in crisis situations, e.g. when handing out special permissions to medical workers or local residents, without requiring complex interoperability and data sharing or issuance processes.

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### **Automation tools by Flowit**

#### **Products:**

**Aitoldyou** is an AI based prediction engine and specialist CRM for logistics and transport companies which provides AI generated detailed predictions for future shipments, customer behaviour analytics, customer retention / churn analysis with automated reports, customer shipment specific offers with the data of their next predicted shipments and complete logistics CRM module that allows full digitalization of sales processes and 100% transparency.

**Robotic Process Automation (RPA)** means entrusting repetitive and time-consuming activities to a robot, so that employees can dedicate more time to value-adding activities. RPA tool reduces man-made mistakes and helps to limit costs. Robots are also faster and more efficient at performing routine tasks. This gives employees more time to do meaningful work. Robots can work 24 hours per day, 7 days per week. RPA allows bolstering the business with machine learning and artificial intelligence capabilities, which increases automation benefits.

**Collector** is a specialist tool that helps gather ideas for process automation in companies of all sizes. This new web app makes it easy and convenient for employees to write down work processes that involve repetitive and routine activities which could be automated. Users write down the content and time cost of the process and the application then calculates the gains of automation, i.e. the working hours saved per year. The results are analysed to determine which processes would be worth automating. The decision is made on the basis of how software robotics would increase employee satisfaction and benefit the organisation financially. RPA, or robotic process automation, is then used to free employees from monotonous work by transferring the tasks to a robot.



**Relevance:** During COVID-19 and the current economic woes it has become more evident that automation is the way to enable both upward and downward scalability and increase in efficiency.

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