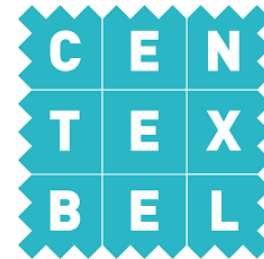


'RESERVIST'

repurposing manufacturing lines for
providing medical and other products and
services in case of spiking demand times

Frederik Goethals



Background

- **Coronavirus outbreak**
- World was not prepared
- Hospitals were overwhelmed (still the case in some regions)
- => lockdowns => economic crisis



Textile industry in Europe

- High demand for PPE
- Production of PPE located outside EU => shortage of PPE in Europe
- European companies switched to the production of PPE and in particular (reusable) face masks
- Some Belgian examples: Ontex, Alsico, Sioen, Deltrian



Textile industry in Europe

- Euratex platform:
- <https://euratex.eu/covid-19/>
- Different initiatives:
 - **Facilitate the production of protective garments (face masks and other)**
 - **Monitoring the impact of COVID-19 on the T&C sector**
 - **Developing a post-COVID-19 strategy for the Textile industry**
 - **Protecting the T&C interests**
 - **Promoting Success Stories**



Certification of these masks

- Testing labs worked 7 on 7 to test the quality of the masks
- New type of masks were introduced the so called 'community masks'
- => a new label for those masks has been created to let the customer know it does the job and is safe to use



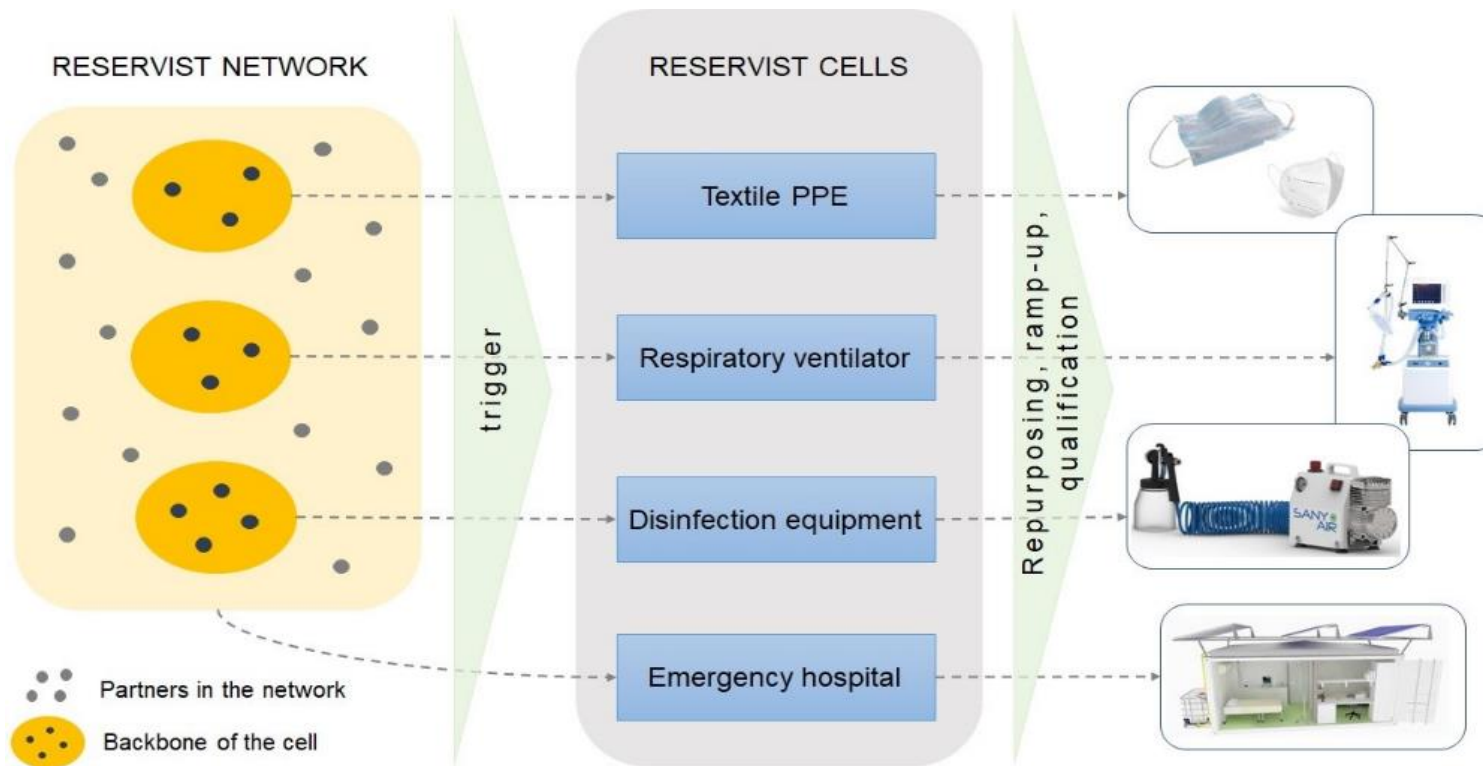
What after Covid?

- Vaccines are developed and vaccination campaigns have started
=> situation will turn back to normal
- In normal situation: production cost in Europe for PPE is too high => production again only in Asia?
- But what when there is a new pandemic?
- Challenge: to setup a concept, methodology and practical supply chain
- => **Reservist project**



Goal

- Setting up 'reservist cells', that in times of crises can be activated within 48 hours to switch to produce the necessary products and services.

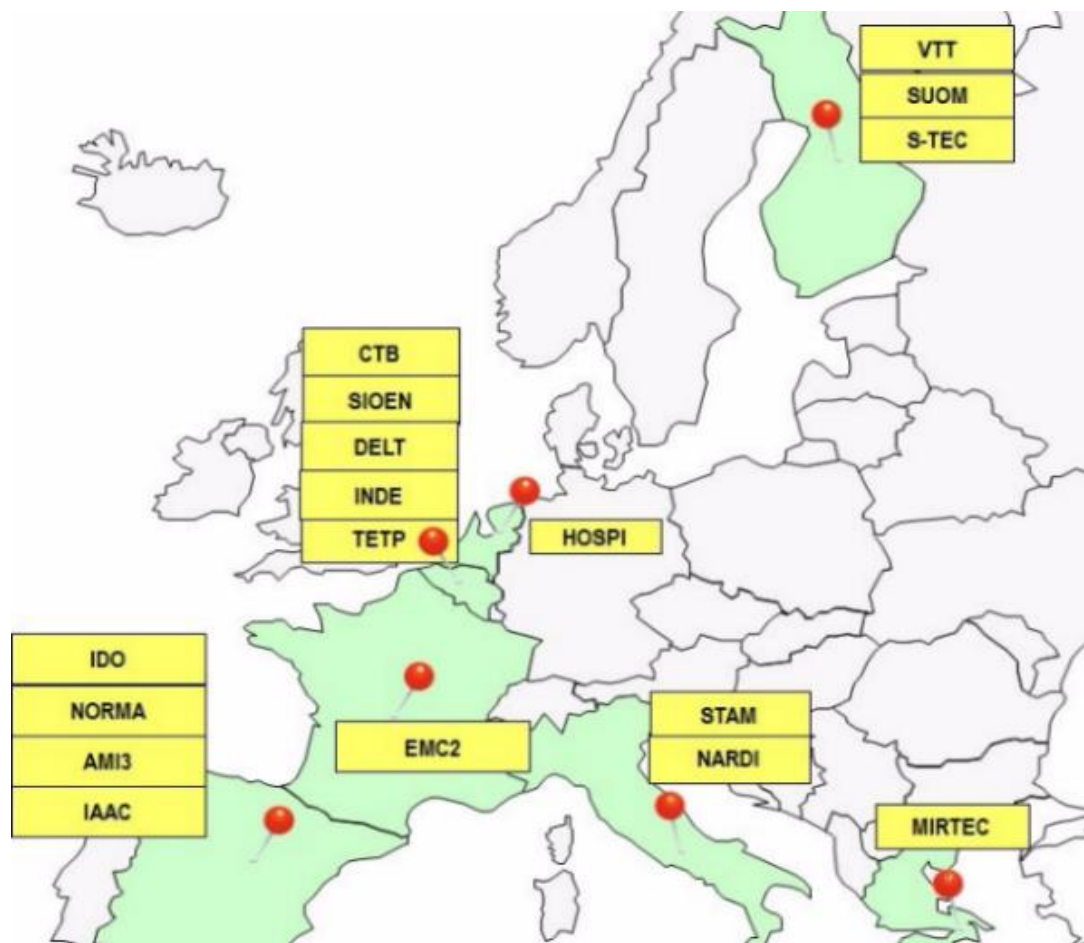


7 Key Objectives

- **Preparation phase:**
- KO1. **Network level:** establish the necessary networks of companies, RTDs, notified bodies for legal, efficient & economically viable collaboration. Target: a scalable, flexible and mutually profitable model for RESERVIST Network operation.
- KO2. **Connected Manufacturing level:** digital platform for coordination & implementing connected / distributed manufacturing & logistics. Target: RESERVIST Digital Platform (RDP) in place for organising repurposing & subsequent connected manufacturing.
- KO3. **Technical Manufacturing level:** develop the necessary materials, tweak production facilities, implement quality control, establish link with testing & certification. Target: strategies to manufacture (redesigned) textile PPE (i.e. face masks, aprons) and open source respiratory ventilators via tweaked manufacturing lines, using alternative materials and with integrated quality control.
- **Demo phase:**
- KO4. **Demonstration** of repurposing existing lines within 48hrs towards manufacturing of 'textile PPE' and 'respiratory ventilators' that comply with testing and certification. Target: Demonstrate within 48hrs of repurposing activity: (i) a production run during one shift (8 hours) for re-useable medical masks (SIOEN, DELT), re-usable aprons (SIOEN) and single use respiratory masks (SUOM, S-TEC) and (ii) an assembly unit capable of 1 respiratory ventilator (invasive or non-invasive) per 8 people per shift (NORMA).
- **Roll out phase:**
- KO5. **Embedding** of reservist cells at the partners in the network. Target: RESERVIST cell backbone structure integrated at the relevant RESERVIST companies (SUOM, SIOEN, DELT, S-TEC, NORM, NARDI, HOSPI) and ready to be triggered.
- KO6. **Replication** of reservist cell concept to other sectors and cases with demo cases. Target: connect industrial partners with distributed manufacturing platforms enriching supply chains and aim for at least 50 relevant entities in the RESERVIST network, with a meaningful European geographical spreading. An disinfection system and emergency hospital equipment are already selected as replication demo cases.
- KO7. **Maximising impact** and take up via exploitation and dissemination. Target: provide tangible input (market study, business plans) for take up by the industry; provide trainings (internal and external), provide standardisation and policy input.

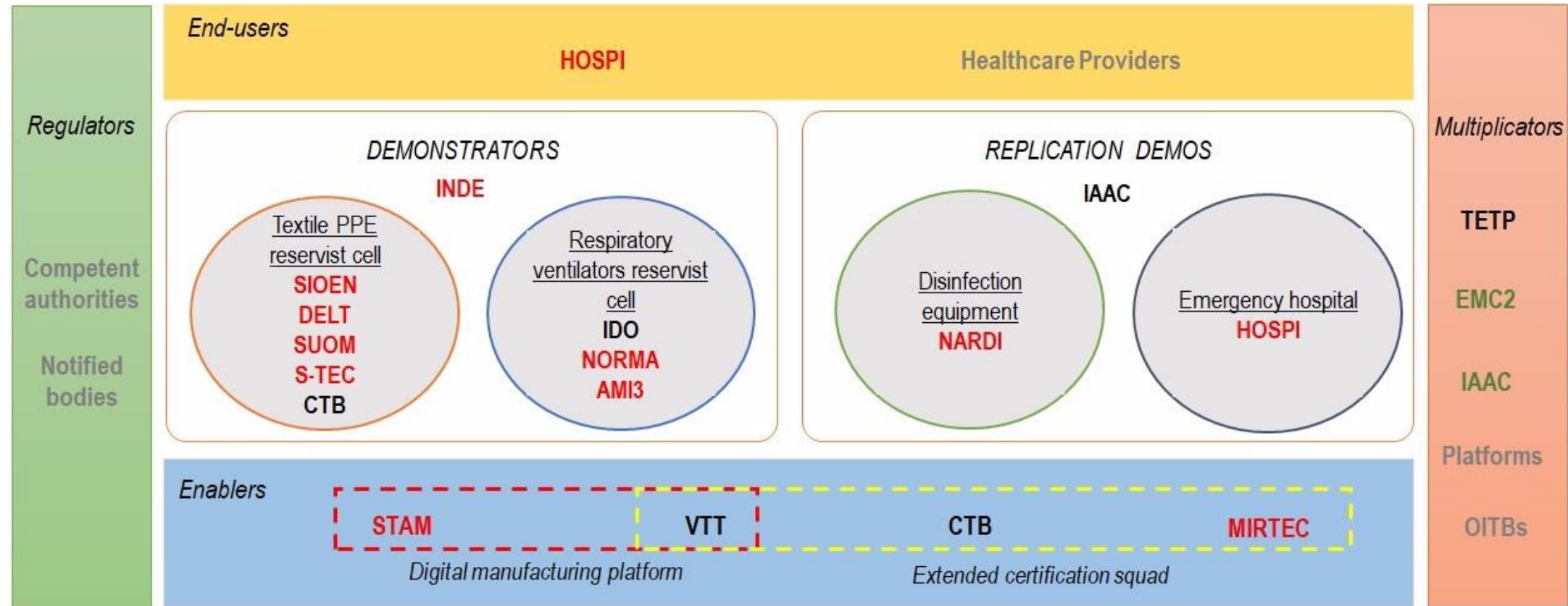


Consortium

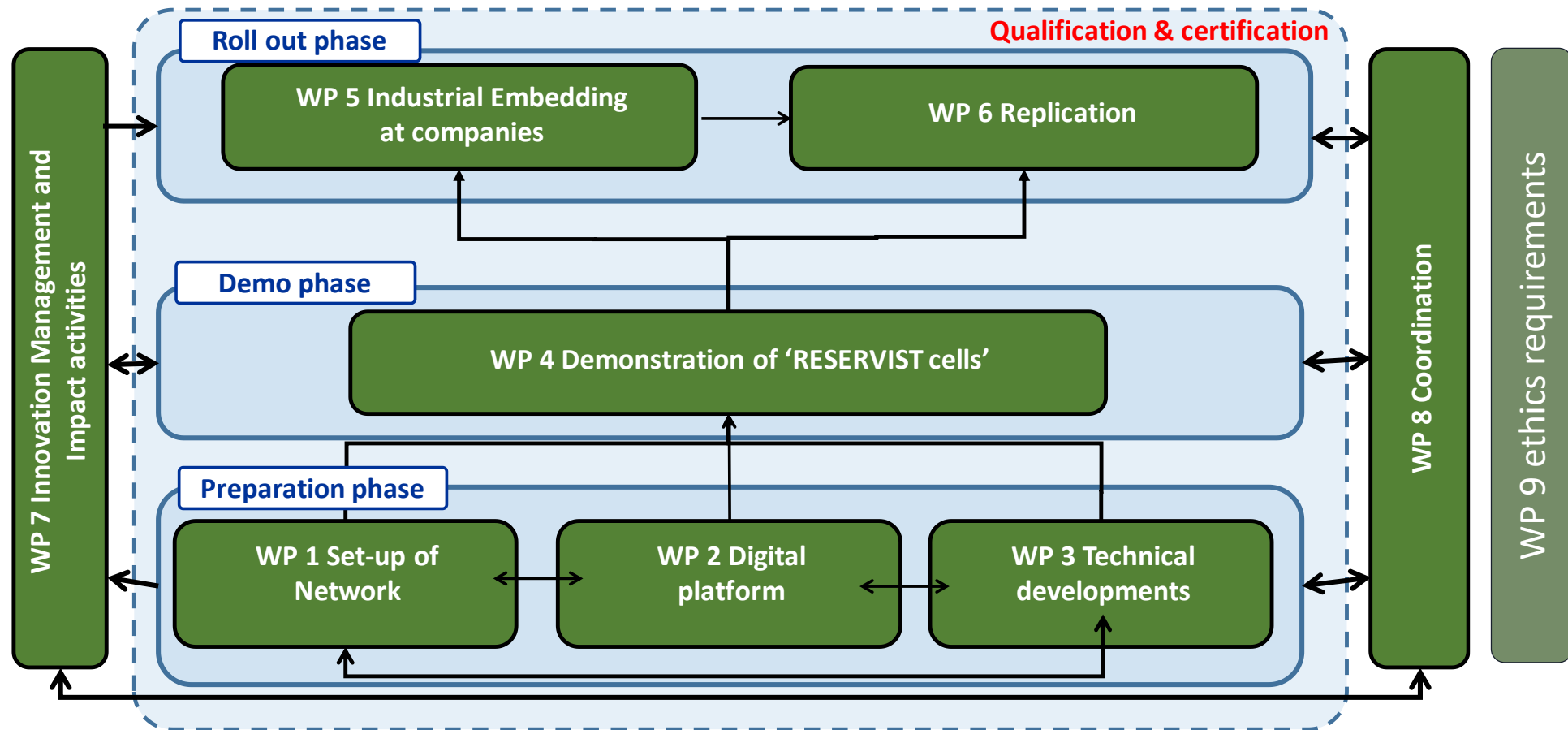


Participant no.	Short name	Participant organisation name	Country	Organisation Type
1 coordinator	CTB	Centexbel	BE	RTD
2	IDO	Idonial Technology Center	ES	RTD
3	VTT	VTT Technical Research Centre of Finland	FI	RTD
4	IAAC	Institute for Advanced Architecture of Catalonia - Fab Lab Barcelona	ES	RTD
5	HOSPI	Hospitainer – Millson BV	NL	SME
6	STAM	STAM S.r.l.	IT	SME
7	MIRTEC	Materials Industrial Research and Technology Center	EL	LE
8	SUOM	SUOMINEN OYJ	FI	LE
9	SIOEN	SIOEN Industries NV	BE	LE
10	S-TEC	Screentec Oy	FI	SME
11	DELT	Deltrian Protective Equipment	BE	SME
12	NORMA	Normagrup Technology S.A.	ES	SME
13	AMI3	ArcelorMittal Innovación, Investigación e Inversión, S.L.	ES	LE
14	NARDI	Nardi Compressor Srl	IT	SME
15	INDE	Industrie et Développement SA	BE	SME
16	TETP	Textile European Technology Platform	EU	Assoc.
17	EMC2	Pole EMC2	FR	Cluster

Contributions of the RESERVIST Partners



Work Plan



Project Data & Acknowledgement

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- Coordinator: Centexbel



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Contact

Guy Buyle, Manager EU research

gbu@centexbel.be

Frederik Goethals, Researcher

frg@centexbel.be

Website:

www.cov-reservist.eu

