

Initiative for collaboration in pre-hospital care

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LINDHOLMEN
SCIENCE PARK

Open Arena

Security

Safety

Media
and
Design

Logistics

Maritime

National programmes and competence centres

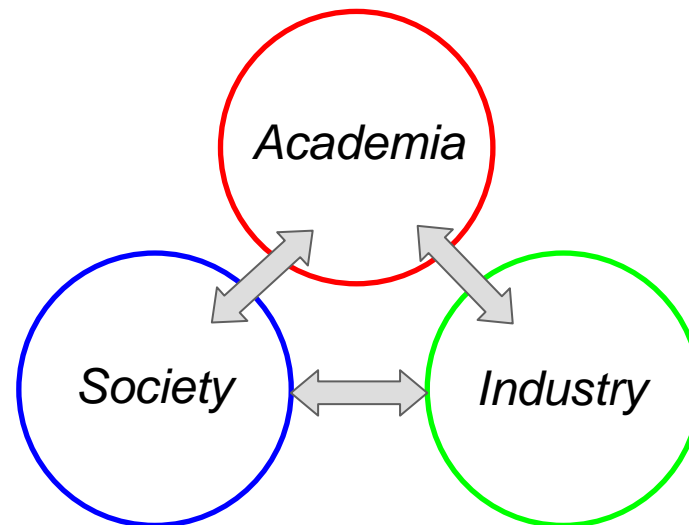
- Security Arena
- Test Site Sweden
- Media Arena
- TUCAP, Development Centre for IT-communications within prehospital care
- SAFER
- Lighthouse
- "Closer" transport efficiency



The Triple Helix model

The Swedish agency for economic and regional growth (Tillväxtverket):

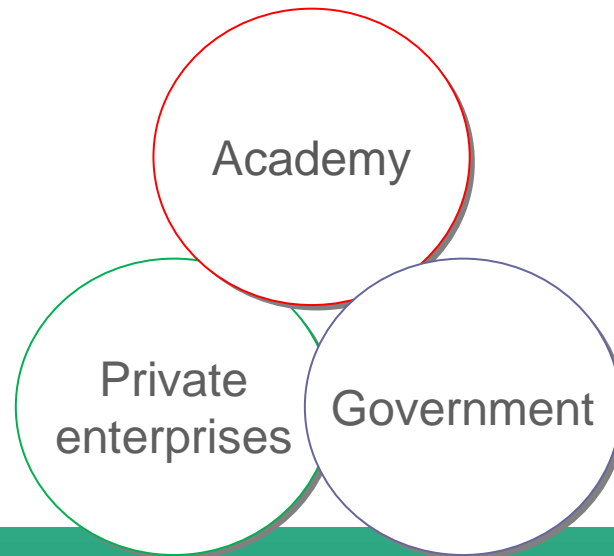
“The Triple Helix model is built on an active interplay between research, politics and industry”



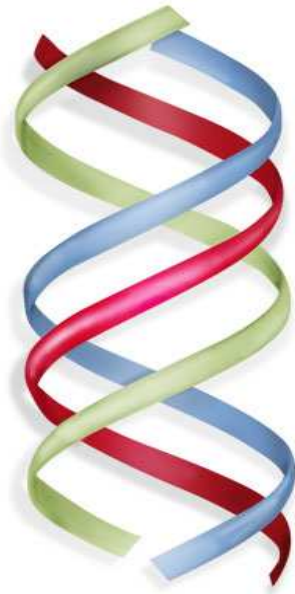
The Triple Helix model

The Swedish Globalisation Council:

“Sweden has what can be called a well-functioning national triple-helix perspective, in other words a trusting cooperation between government, academy and private enterprise”



The Triple Helix model



“The triple helix is a spiral model of innovation that captures multiple reciprocal relationships at different points in the process of knowledge capitalization.”

Henry Etzkowitz



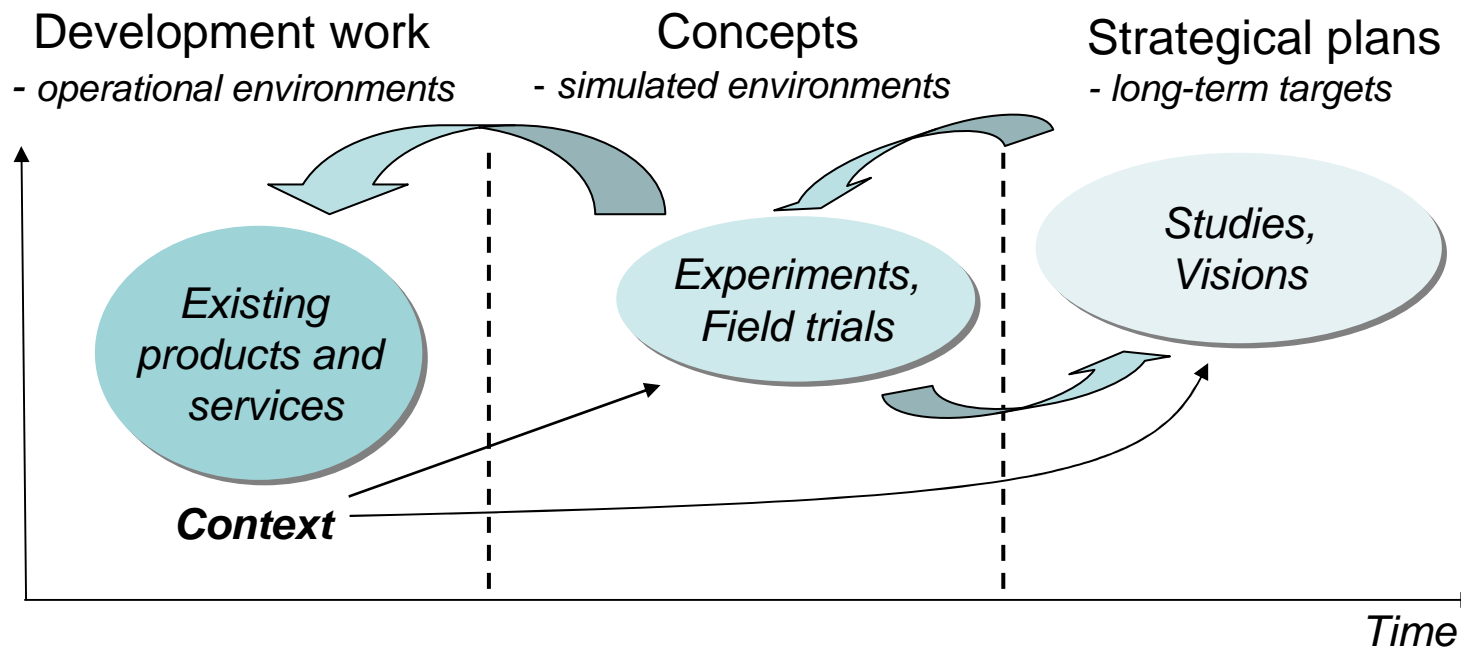
Pre-conditions for success

- 1) Nationally/internationally prioritized area(s)
- 2) Existing demand
- 3) Strong industrial interest
- 4) “Front persons”
- 5) Complementary collaboration partners
- 6) Well-functioning collaboration platform



Challenges

- End-users focus on immediate benefits/utilization
- Industries require return-on-investment in 2-4 years
- Academies focus on long-term research



TUCAP

Technical development centre ambulance and pre-hospital care

- A national development centre at Lindholmen Science Park
- Established during 2010
- Focus on information and communication technologies
- Open development in collaboration with industry, academia and society



TUCAP - project partners (so far)

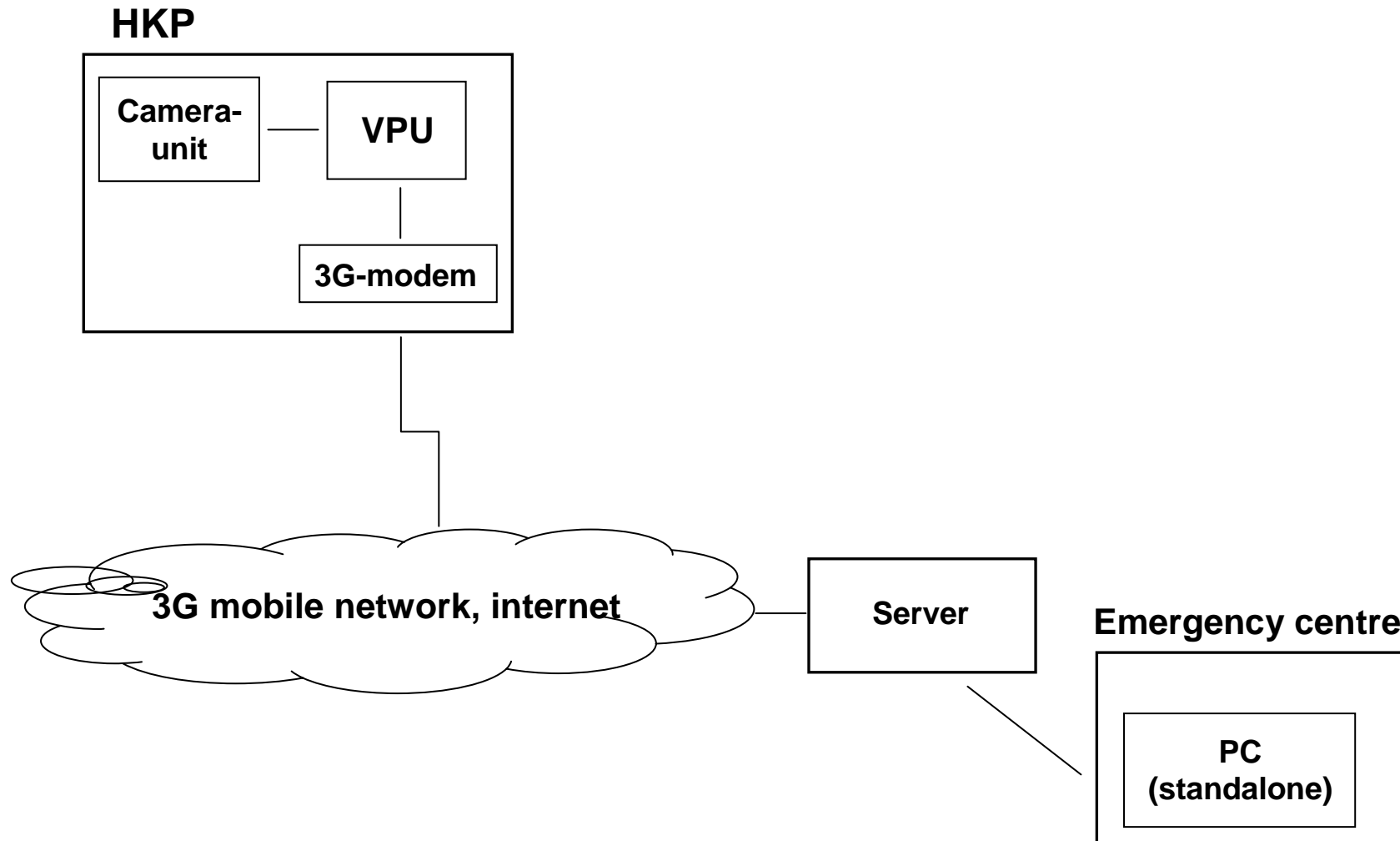


TUCAP - ongoing projects

- **Video service from helicopter**
 - Live video sequences from a scene of accident to an emergency centre using a handheld camera
- **Resource forecasting**
 - Short-term forecasting (1-2 hrs) and estimated long-term flows about ambulances position and availability
- **Prestudy - Information interfaces**
 - Study regarding needed standardisations and optimizations regarding information exchange in the pre-hospital chain
- **Partnership for efficient pre-hospital care**
 - Knowledge exchange between emergency centres and research institutes in the Baltic region



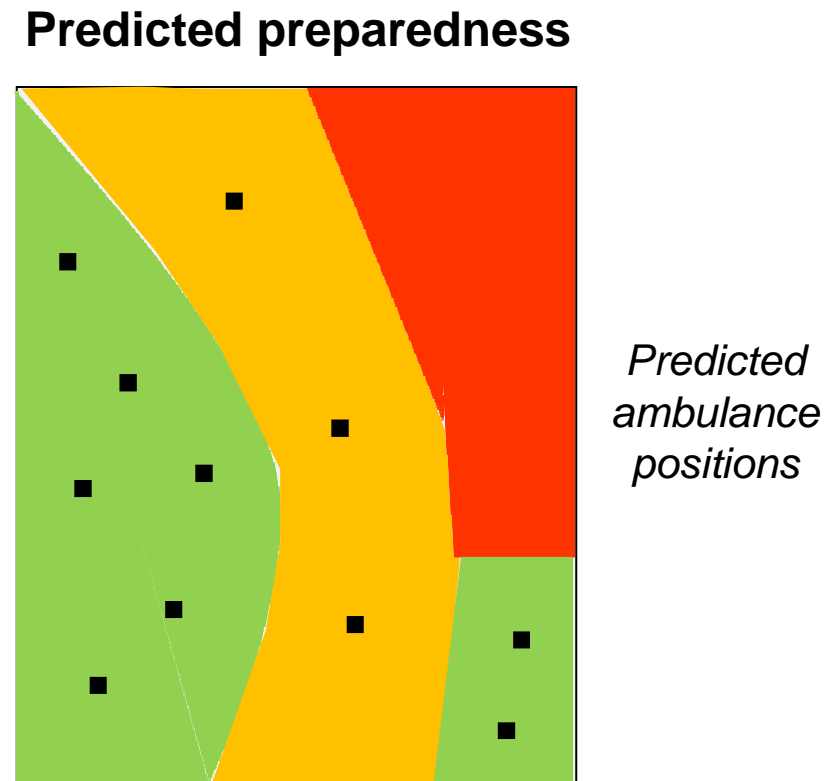
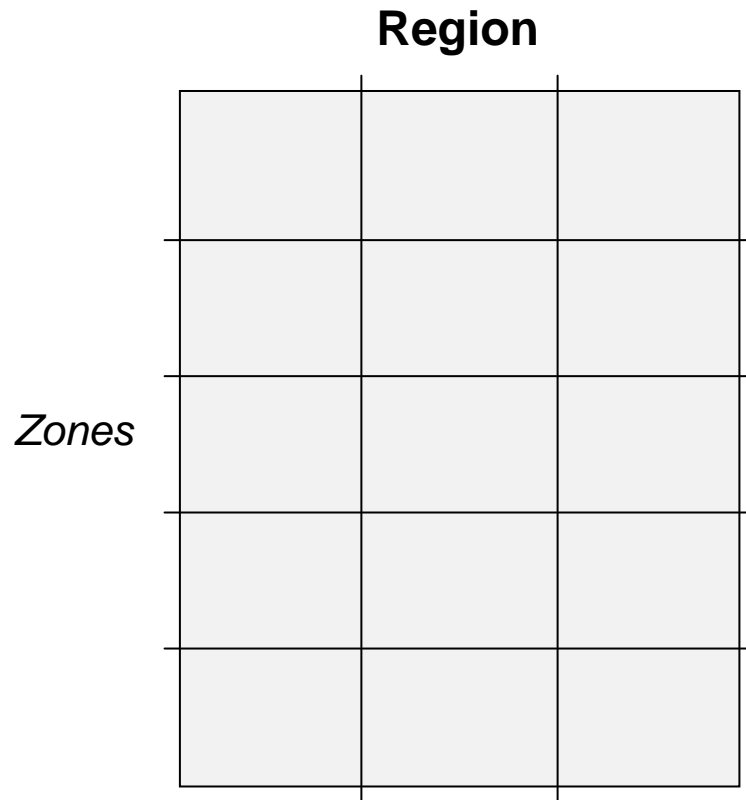
Videoservice from helicopter (1)



Videoservice from helicopter (2)



Short-term resource forecasting - general design



Short-term resource forecasting (examples)

Example probabilities of ambulance position (%)

		Ambulances					
		1	2	3	4	5	6
Zones	1	63.7	67.9	9.5	3.9	15.3	13.0
	2	17.8	12.6	71.7	10.6	6.6	7.9
	3	9.7	10.0	4.4	60.7	11.3	9.1
	4	8.8	9.5	14.4	24.8	66.8	70.0
Total		100.0	100.0	100.0	100.0	100.0	100.0

Example probabilities of ambulance availability (%)

Ambulances					
1	2	3	4	5	6
27.6	44.4	48.5	30.8	28.9	37.2



TUCAP - summary

- TUCAP offers a research and development environment for actors in pre-hospital care
- Collaboration between researchers, industry, and public partners
- Interested parties are invited to participate
- Focus on projects close to operational benefits

