

# **Work group 5 workshop**

# **Security, Metrology & Sensors**

**Photonics21 Annual Meeting**  
14th – 15th January 2010  
Radisson Blu Royal Hotel Brussels

## Agenda

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- Review of the new SRA streamlines for WG5
  - Presentation of ideas and projects in the frame of the new SRA (large scale action sensor security network)
  - Building the detailed roadmap according to the new SRA streamlines
  - Conclusions
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## Security and Safety in the new SRA

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### Global market overview

- €22 billions yearly market for equipment using optical technologies
- Growth to €48 billions at 12% CAGR by 2015
- Double digit growth predicted in quite all sectors

### Security: 15 billions in 2007 including

- Video surveillance
- Border control
- Biometry
- Detection of dangerous and unauthorised goods

### Safety: 7 billions in 2007 including

- Detection of pollution
  - Driving assistance
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## Security and Safety in the new SRA

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### **Security**

- People employed in European optics driven security equipment: 45,000
- Europe sales for 30% of the world market

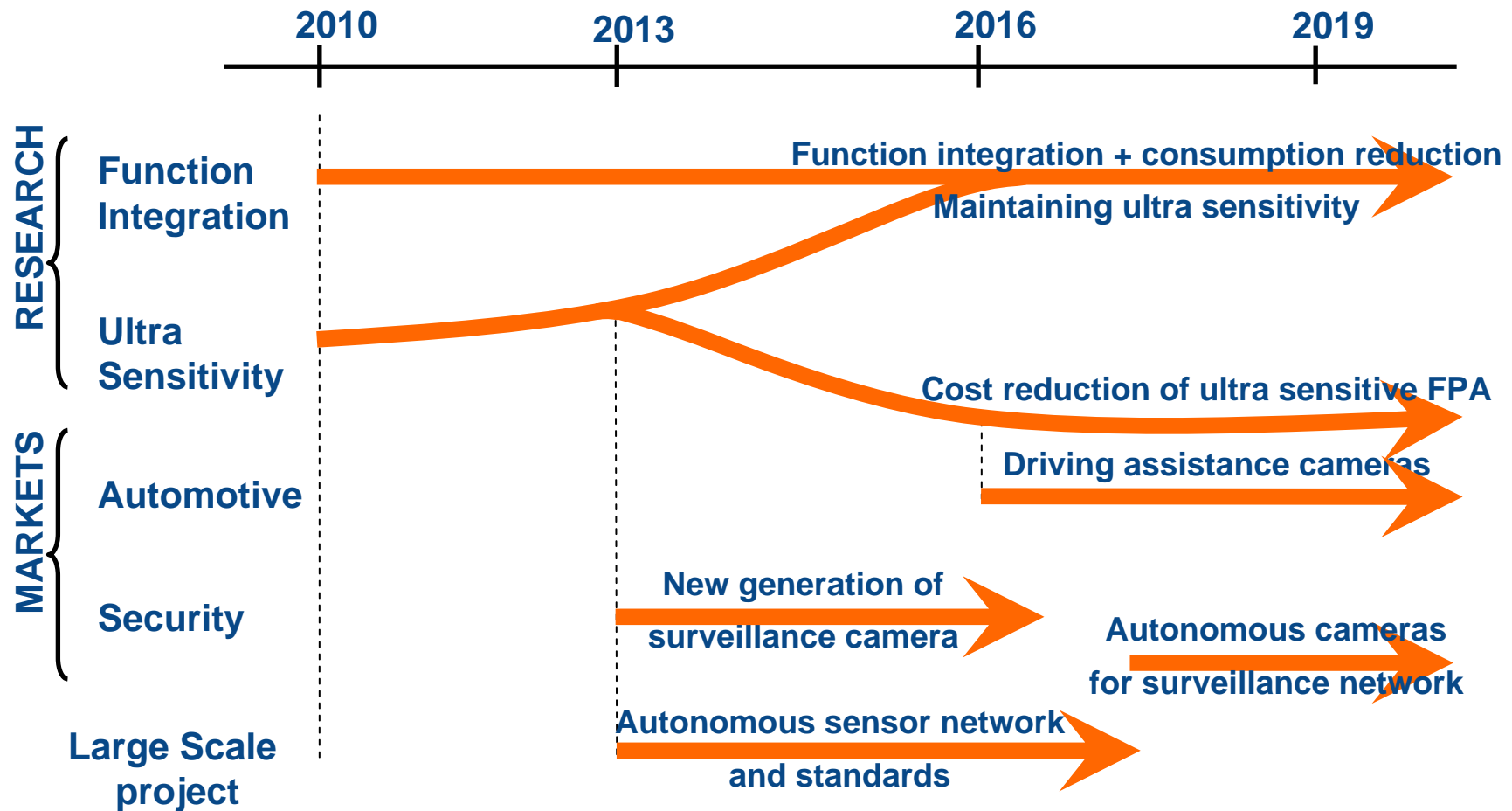
### **Safety**

- People employed in European optics driven safety equipment: 20,000
  - Europe sales for 30% of the world market
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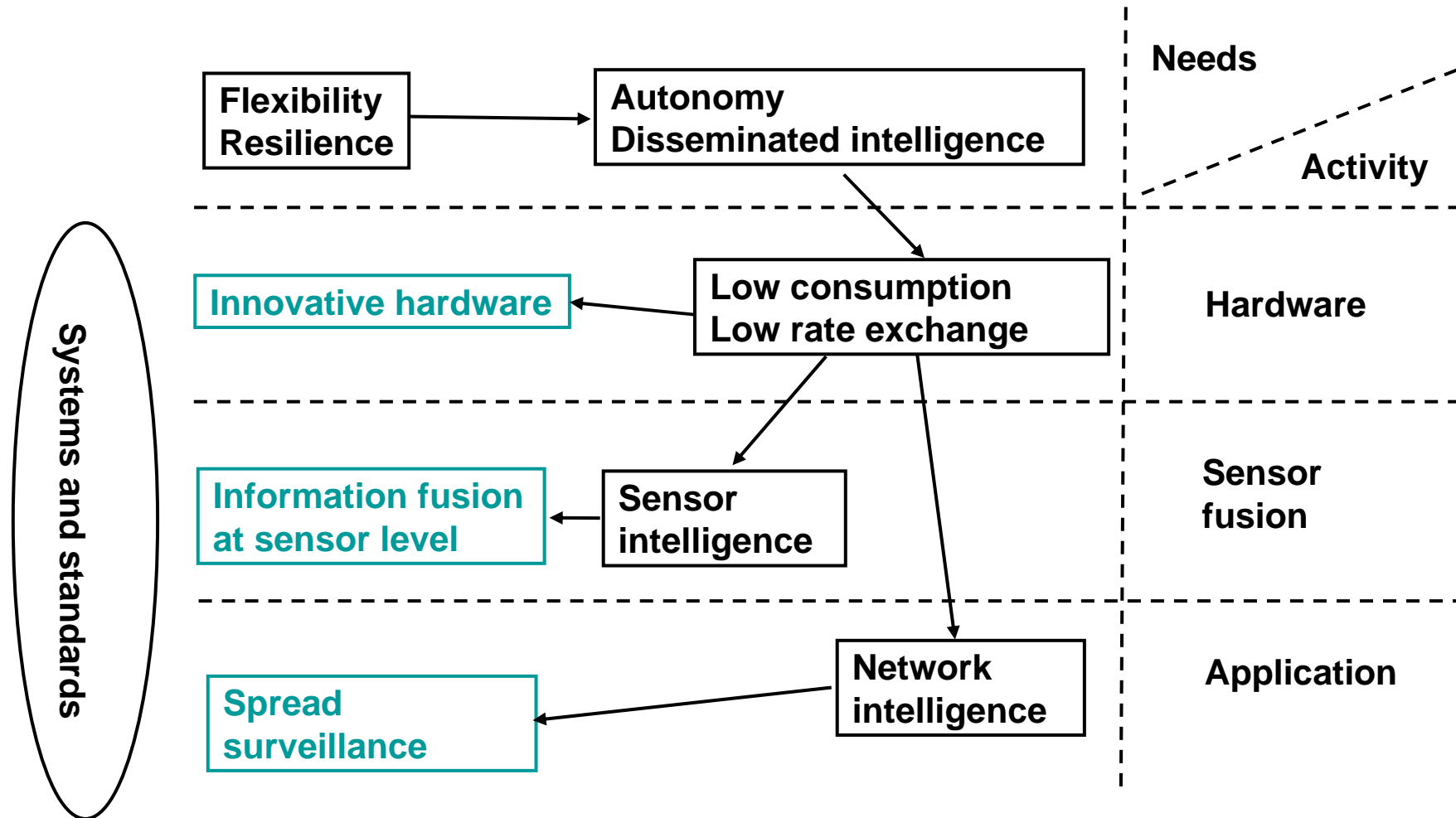
## Security and Safety in the new SRA

Focus areas	Video surveillance Border Biometrics	Detection of dangerous and unauthorised good	Detection of pollution	Driving assistance
Challenges	High image quality independent of lighting Autonomous sensors	Miniaturisation Remote detection	Remote detection	High image quality independent of lighting Embedded intelligence
Research priorities	(1) Affordable single photon imaging (2) Functional (smart) pixels (LSA) Large scale project on sensor network	(1) Affordable single photon imaging (3) Specific wavelength detectors and related sources	(3) Specific wavelength detectors and related sources	(1) Affordable single photon imaging (2) Functional (smart) pixels

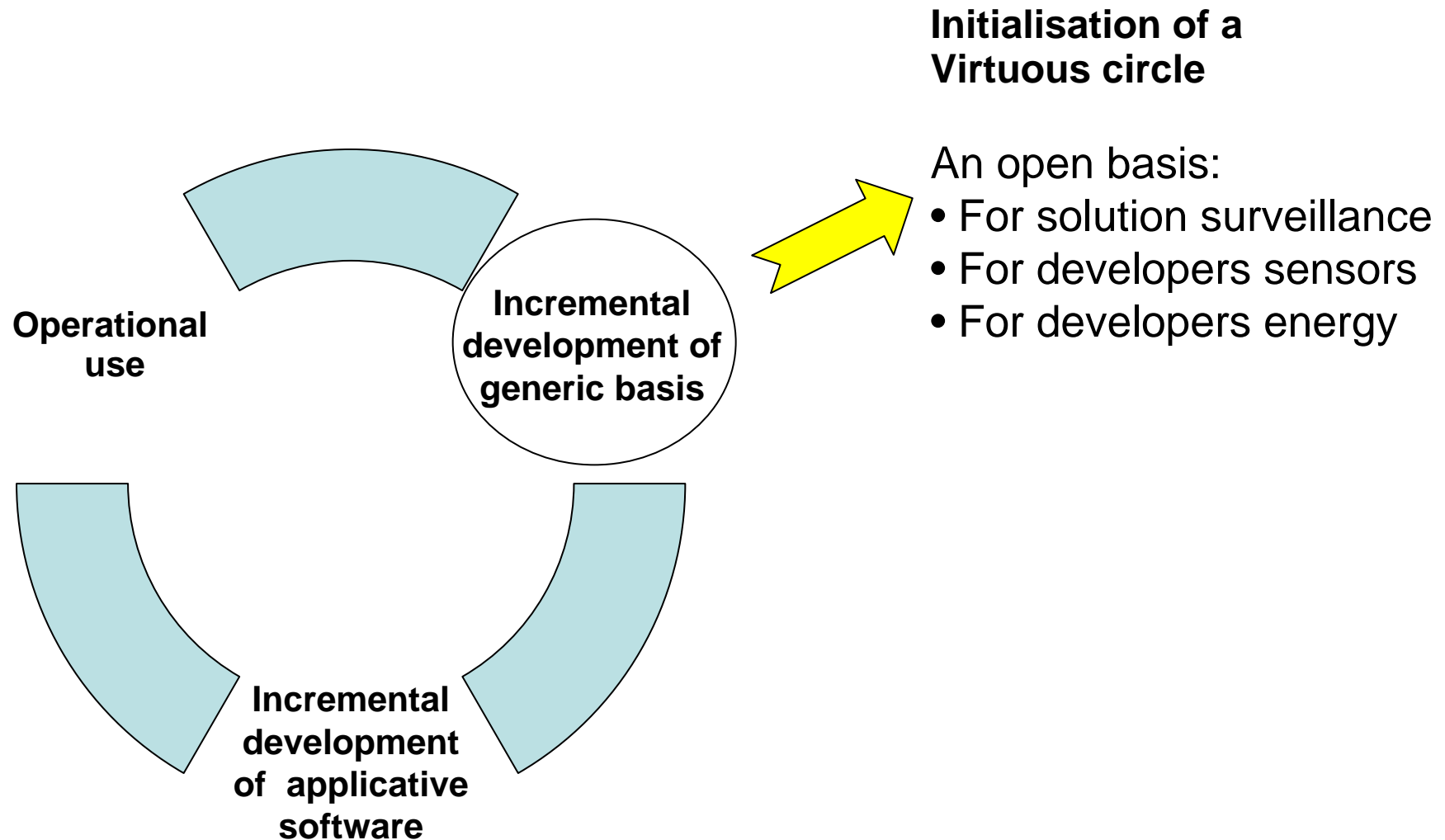
## Security and Safety in the new SRA



## Security and Safety in the new SRA



## Security and Safety in the new SRA



## Building the detailed roadmap according to the new SRA streamlines

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- For each of the 3 priorities
    - ⇒ Define milestones
    - ⇒ Define performance associated with milestones
    - ⇒ Define parallel work to be done to reach each milestone
    - ⇒ Define relation with market at each milestone
  - For priority 3 (Specific wavelength detectors and related sources)
    - ⇒ Define the wavelengths priority and their applications
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## Ultra sensitivity

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- Milestone 1
  - Milestone 2
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## Function integration

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- Milestone 1
- Milestone 2

## Specific wavelengths and their relate sources

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- Wavelength A
    - Milestone 1
  
    - Milestone 2
  
  - Wavelength B
    - Milestone 1
  
    - Milestone 2
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## Conclusions and further work

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- Focal points for each area
  - Candidates?
- Aggregate the inputs during 2010