



H2020 - 740689



HEIMDALL Overview

Dr. Tomaso de Cola (DLR)

Policy-Research Dialogue Roundtable (PRDR)
28th February 2019, Brussels



Overview

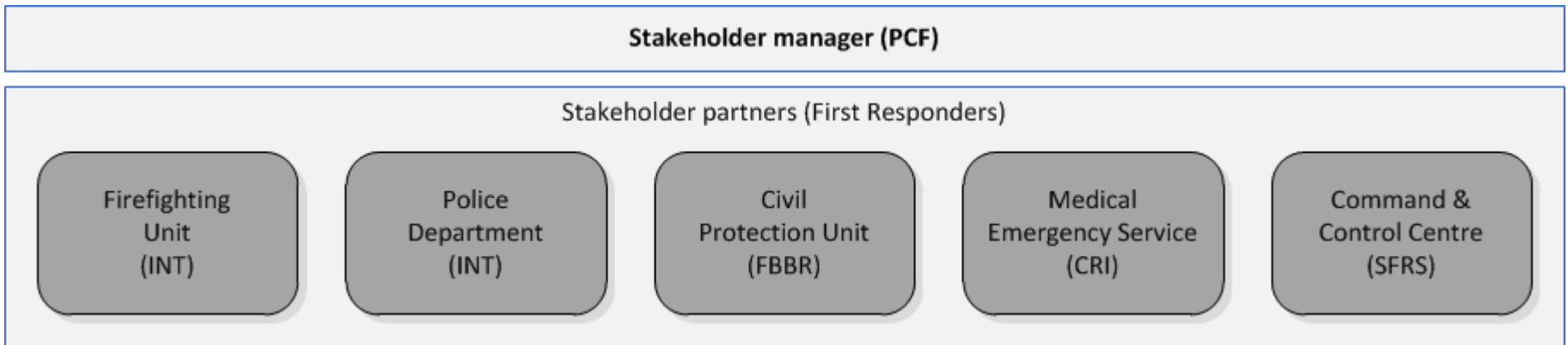
- Multi-Hazard Cooperative Management Tool for Data Exchange, Response Planning and Scenario Building
- H2020 Project with start in May 2017 – end in Oct 2020
- Budget: 7.8 Mio. €
- Project Coordinator: DLR
- Main objectives:
 - Develop services and products for response planning and scenario building
 - Integrate those in a multi-hazard platform
 - Interlink multiple actors
 - Demonstrate the system prototype in an operational environment

HEIMDALL Constellation

- 14 partners with expertise in different security and space European projects dealing with emergency management tailored to the different scenarios



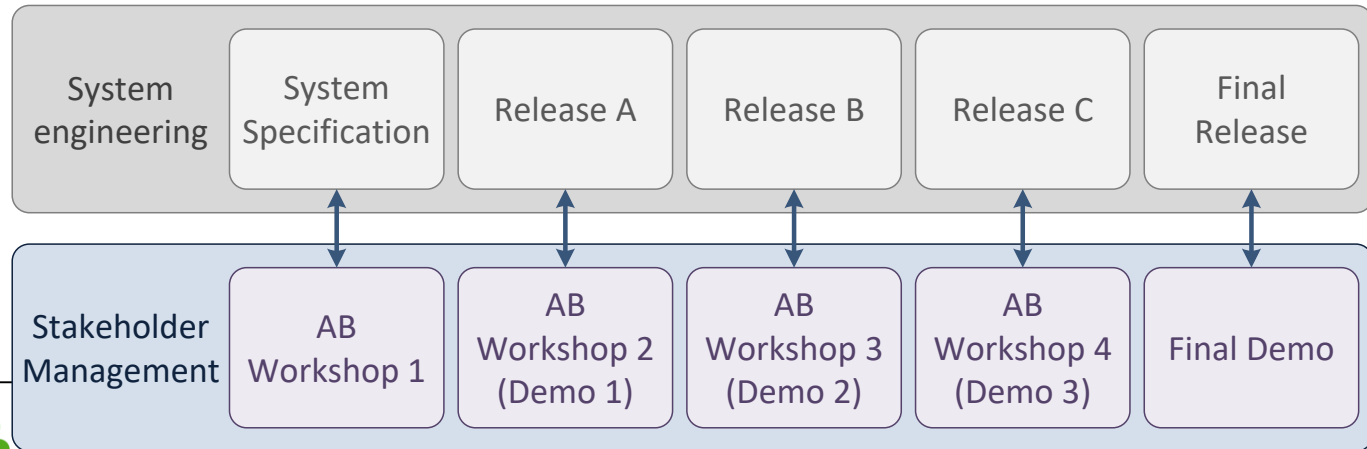
- High participation of practitioners



Multi-hazard Cooperative Management Tool for Data Exchange, Response Planning and Scenario Building

HEIMDALL interaction with practitioners

- Stakeholder Management:
 - Periodical End User Workshops
- Consortium and Advisory Board:
 - SAFE Cluster, Consejería de Medio Ambiente y Ordenación del Territorio Junta de Andalucía, Instituto Geológico y Minero de España, Departamento de Desarrollo Rural y Sostenibilidad Gobierno de Aragón, Croatian Firefighting Association, Agenzia per la Sicurezza Territoriale e Protezione Civile – Regione Emilia Romagna, BRGM-France, Vigili del Fuoco, Geological Survey of Austria



HEIMDALL Usecases

Hazards:

- Fire
- (Flash) Flood
- Landslides

Cascading effects:

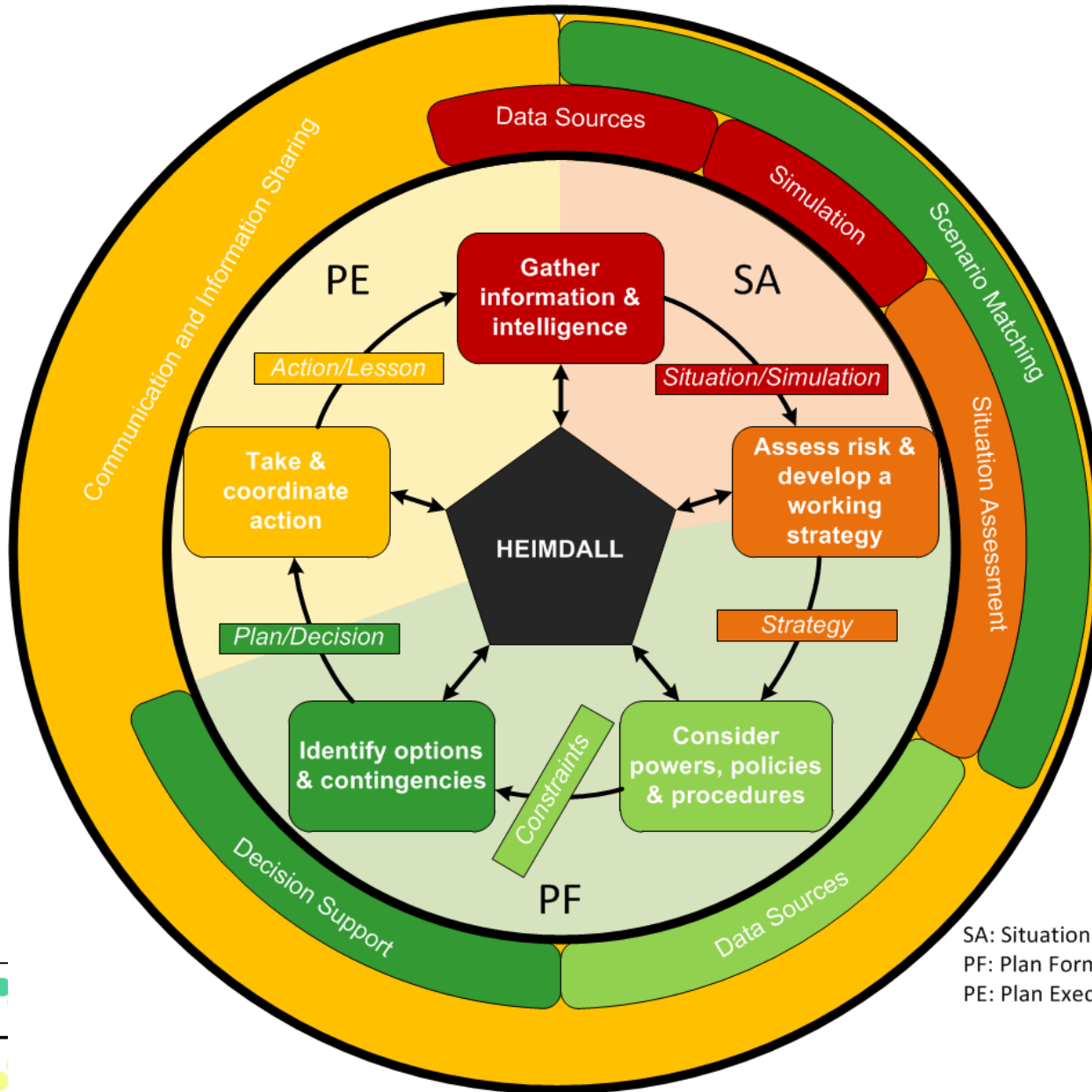
- A flood triggering a landslide
- A landslide blocking rivers and increasing the probability of floods
- A forest fire damaging a dam increasing probability of floods
- A landslide damaging high-voltage power lines increasing the probability of wild fires

Operation modes:

- Preparation mode
- Response mode



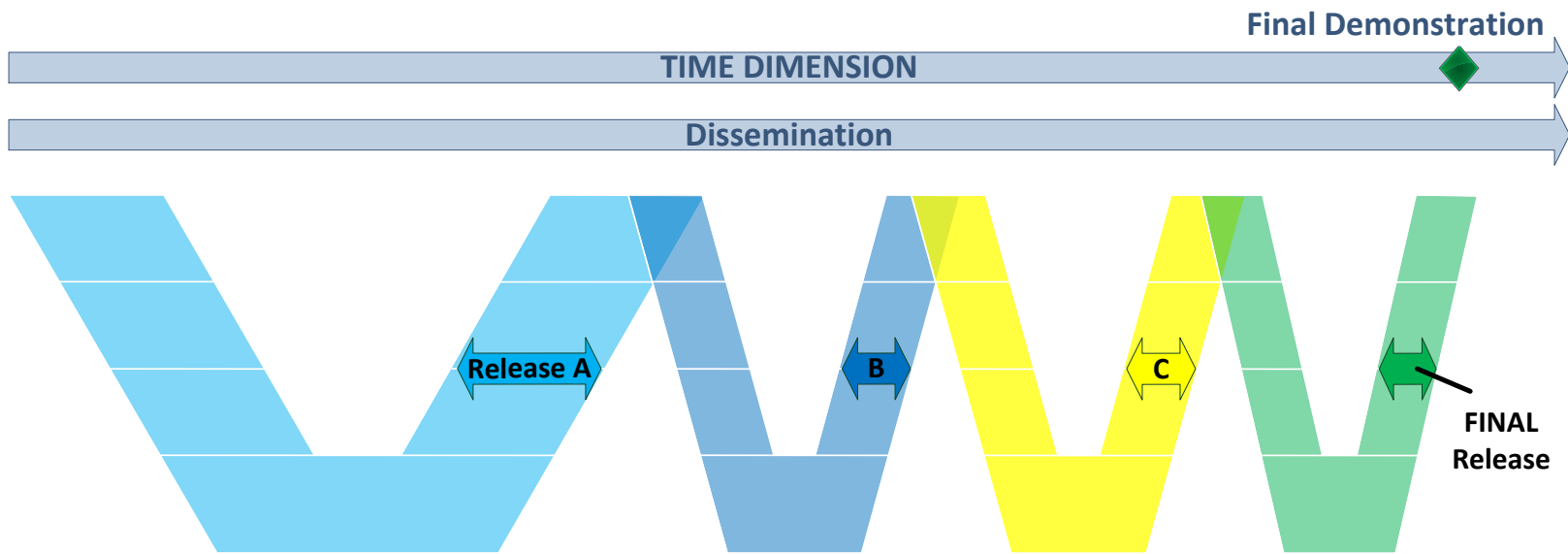
HEIMDALL Concept



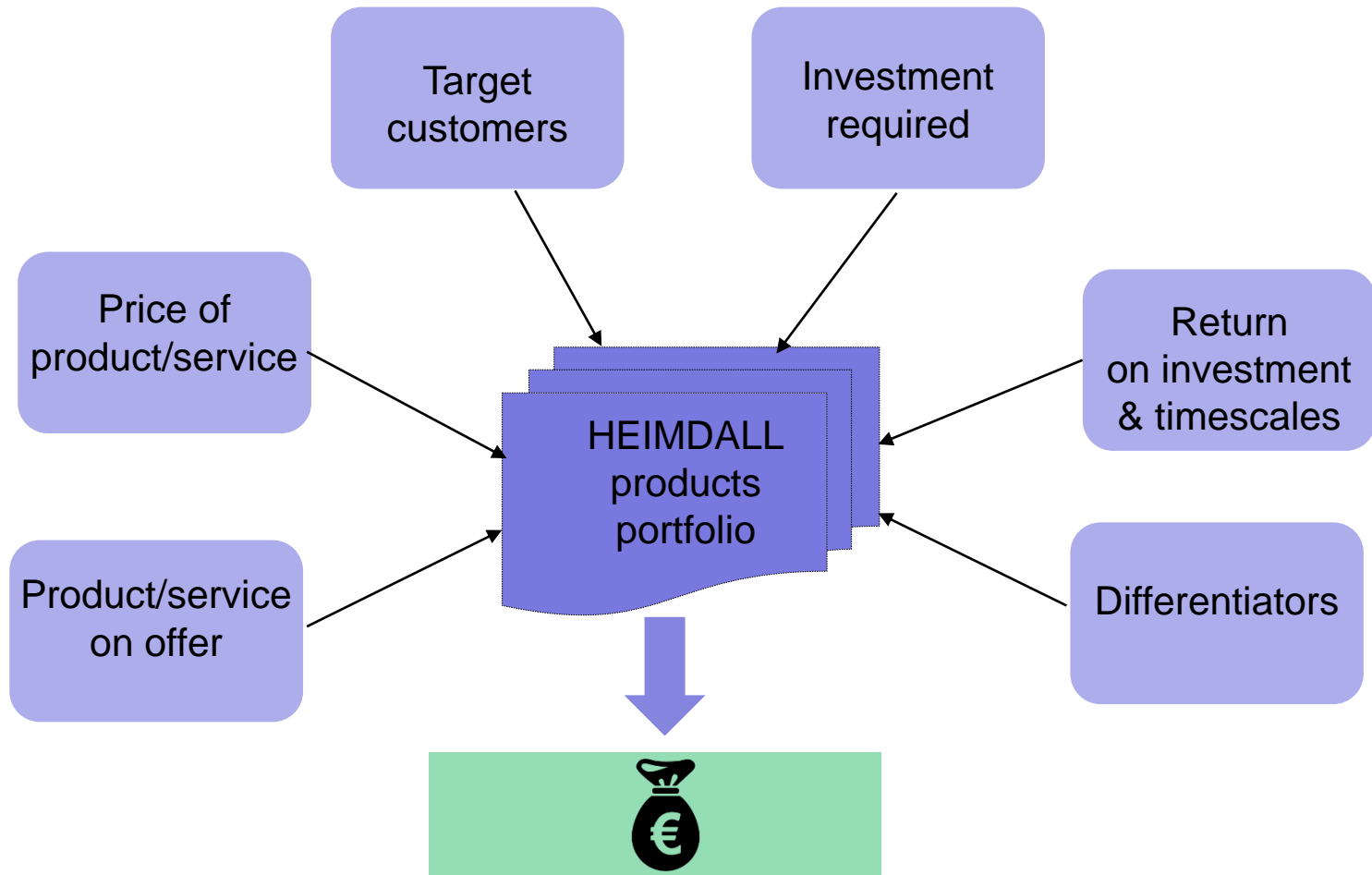
SA: Situation Assessment
 PF: Plan Formulation
 PE: Plan Execution

HEIMDALL approach

- System Engineering:
 - Use of the Vee model
 - 4 consecutive system releases
 - Iterative and incremental development



HEIMDALL Exploitation



Service Packages (example)

Service Packages	Web- based GUI	Service Platform	Data Sources	Simulator	Situation Assessment	Scenario Mgmt	Satcom/App	Data sharing/ Catalogue	Notification on new products
Data Service (* no live information)	x	x	x	x	x				x
Emergency Management	x	x	x	x	x	x	x	x	x
Response Planning (*can upload own data)	x	x	x	x		x		x	x
Communication Package	x	x					x		
Simulation Package	x	x	x	x				x	x
Training	x	x	x	x	x	x		x	x



Exploitation beyond HEIMDALL

- Requirements to move HEIMDALL from a prototype to a commercial system:
 - **Service provider**
 - Incorporation and constitution of suitable commercialization organization
 - Management of Intellectual Property
 - Location of incorporation and justification
 - Investment to sustain business whilst costs outweigh sales



Thank you for the attention!

Contact: tomaso.decola@dlr.de