

Contributions to PC2 - What remains of containment?

Evolution of artifact ecologies in civil security organizations

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as part of **PePR eNSEMBLE**

RESEARCH QUESTION

How and why have the practices and uses of collaborative tools **(Ecologies of artifacts)** evolved in **civil protection** with and since **containment**?

Axe 1: understanding emerging and future forms of long-term collaborative practices



Fig 2. Photo of a French civil security operation (77) in Seine-et-Marne, France, by Bordier (2023) for Le Parisien.

LITERATURE REVIEW

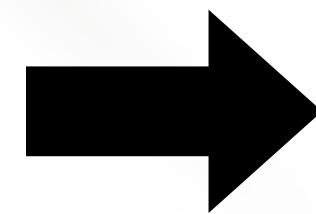
methodological framework for long-term collaborative practices understanding

Link with other PhD Thesis (*i.e.* Yann, Anastasya, Romain, Sidonie, Antoine)

Concept: Ecology of Artifacts (EoA)



Fig 3. Example of a collective ecology of artifacts from Rossitto, Bogdan and Severinson-Eklundh (2014)



2 theoretical frameworks:

Activity theories + Distributed Cognition

RELEVANT NEW CASE STUDY

Observation of **practical inter-services training** sessions

Semi-directive explanatory interviews with members of the civil security sector, partners of SDIS 57



Fig 4. Official photo of an inter-service training session, found at <https://www.facebook.com/sdis57Officiel>

Empirical field description

Understanding users
perspective

R1: EOAS DENSITY

Understand inter-service
long-term collaboration & uses

- EoAs are **dense, differentiated** from one service to another, partially **redundant** and **inter-connected** ;
- Unstable EoAs, constantly **changing** ;



Fig 5. Schematic representation of civil security's non-exhaustive digital collaborative tools

R2: MOVEMENTS

Prepare future digital collaborative tools introduction

- 7 movements inside civil security's EoA **evolutive dynamics**, grounded on observed and reported cases :
 - 4 introduction movements;
 - 1 decommissioning movement;
 - 1 replacement movement;
 - 1 realignment movement.

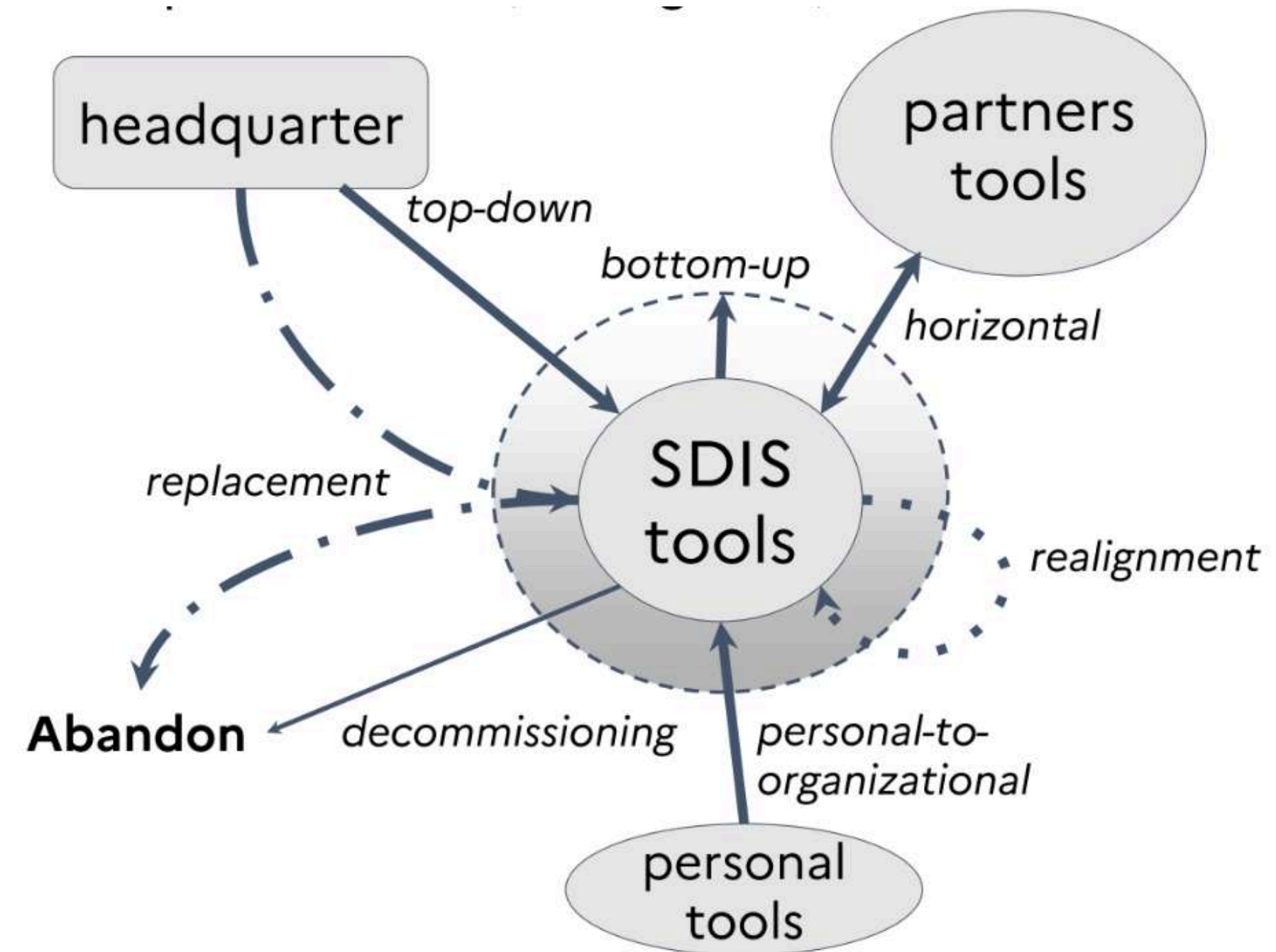


Figure 2. Schematic representation of the main movements in the evolution dynamics of civil security's EoAs. Round shapes represent organizational EoAs, oval shape represents personal EoA and square shapes represents non-EoAs. Each style of arrow represents a different kind of movement.

PERSONAL- TO- ORGANIZATIONAL

Understand current
EoA's construction

Whatsapp case



REALIGNMENT

Understand the relationship between the users and their tools

Excel spreadsheet, GLPI tickets and mail cases

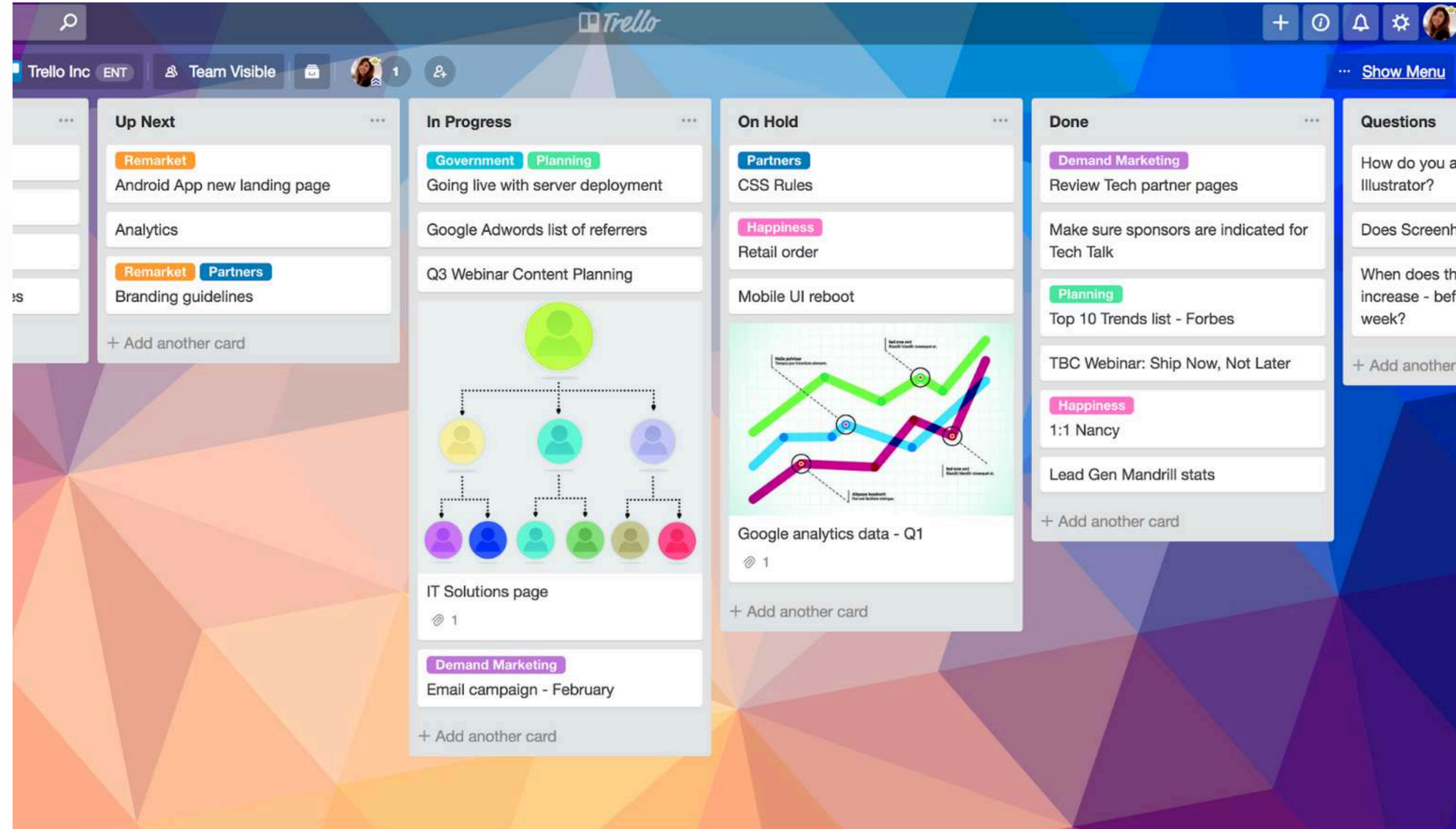


The screenshot displays two overlapping windows. The background window is an Excel spreadsheet titled 'yearly budget.xlsx' with a 'Personal Budget' sheet. It features a table with columns for months (Jan to July) and rows for various expense categories like Home, Daily living, Transportation, Entertainment, Health, Vacations, Recreation, and Dues/Subscription. The foreground window is a GLPI ticket form for 'Ticket - ID 15', showing fields for 'Date d'ouverture', 'Dernière modification', 'Temps de prise en charge', 'Type', 'Statut', 'Urgence', 'Impact', 'Priorité', and 'Acteur'. A browser window in the background shows the GLPI interface at 'http://svglpi.glpi/front/ticket.form.php?id=15'.

DECOMMISSIONING

Understand tools
adoption failures

Kanban generic
component case



R3: COVID'S IMPACT

Understand long-term COVID-19's impact on long-term collaboration

- **Influence of COVID-19 on EoAs:**
 - headquarters = no change;
 - gendarmes = radical changes;
 - firefighters = some changes:
 - **Dematerialization**
 - **Exponential tool's development**



Fig.7 Picture of firefighters during COVID taken by and for Actu Essonne, Loubet, 2020

PERSPECTIVES

- Concieve **new long-term collaborative tools** for civil security
- Open dialogue with **policy makers** for civil security's collaborative tools
- Open the door to future **projects with Grand Est's civil security** (*i.e.* Mute when no wifi)
- Make measures on **large and complex populations**

THANK YOU !



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