

# Quality process design to change radiodiagnostic equipment to minimize the impact on waiting lists in a public health imaging diagnostic provider

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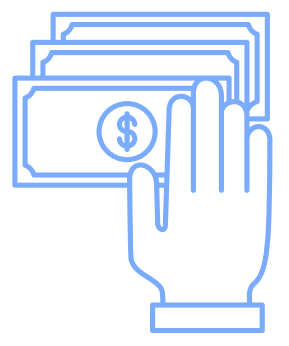
**Generalitat  
de Catalunya**

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# Introduction

## 2021



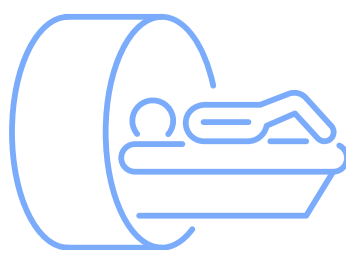
Spanish INVEAT plan to reduce obsolescence of the National Health System image technological park

## 2022

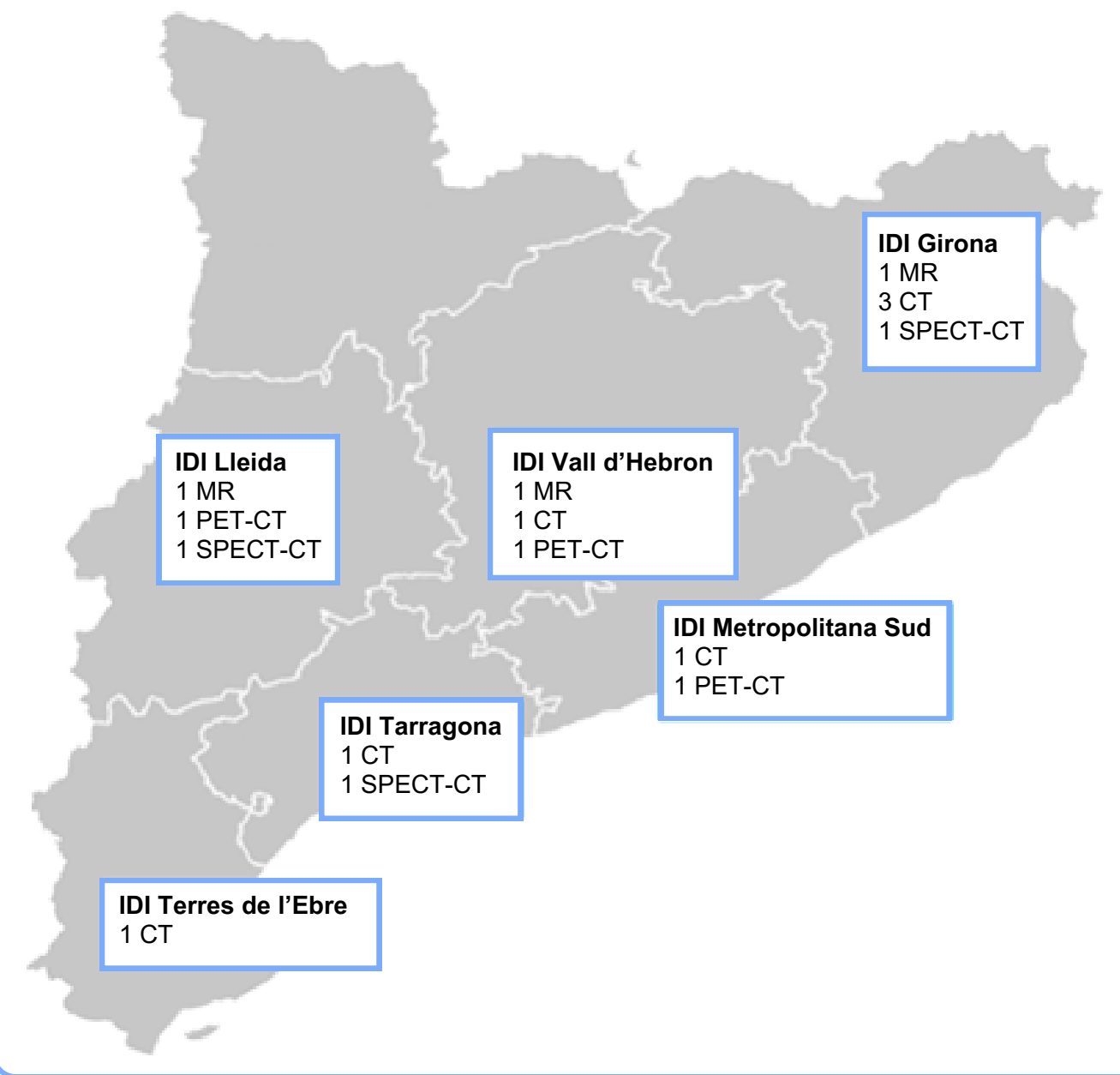
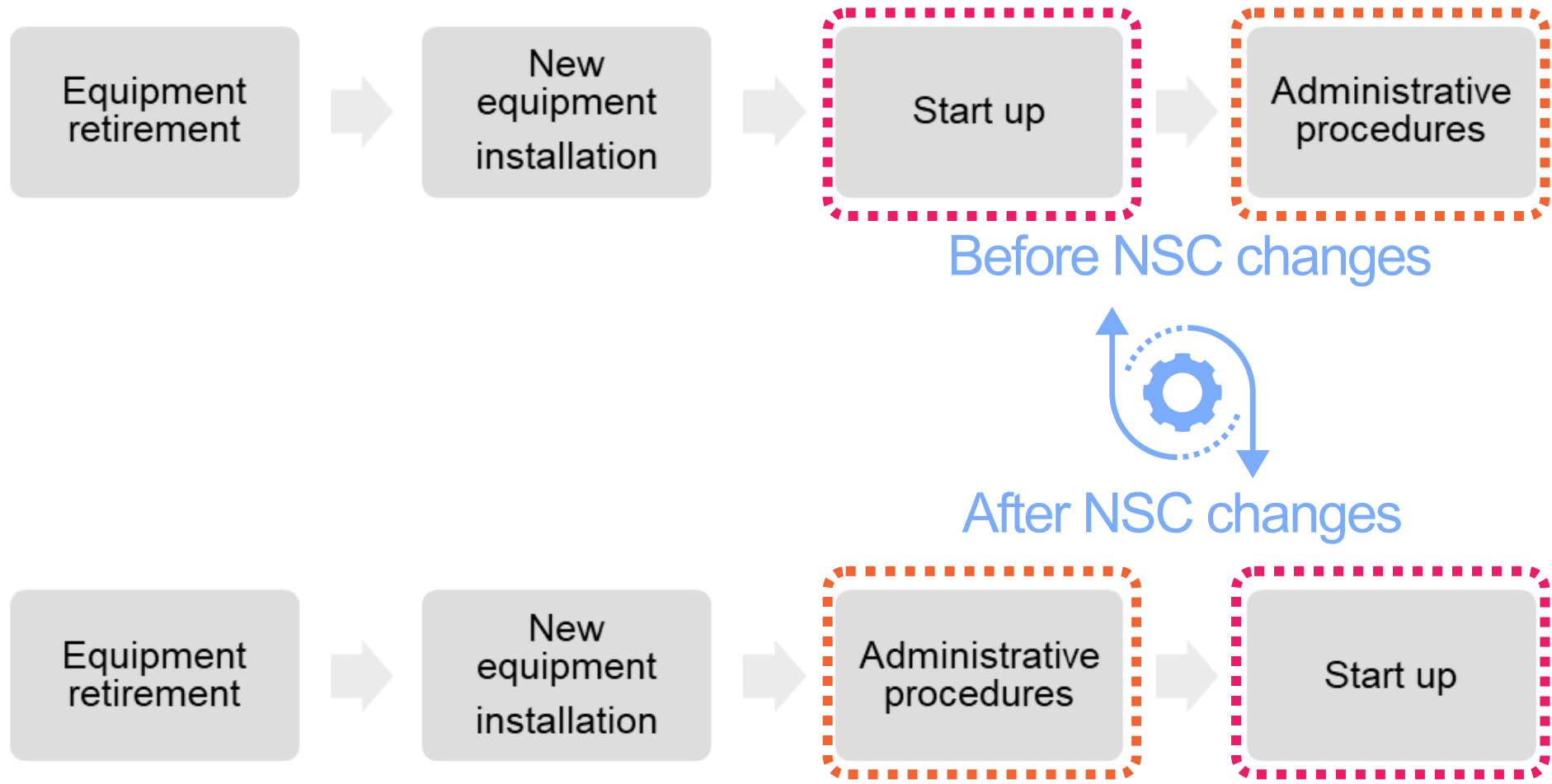


Nuclear Safety Council (NSC) new regulations affects IDI INVEAT implementation process

## 2022-2023



IDI implements 17 new high-tech equipment in 7 hospitals throughout Catalonia



## How do these changes affect the INVEAT implementation process?



### INVEAT deadlines

- Operational equipment by 30th september, 2023
- Possibility of delay waiting for administrative authorization



### Waiting lists

- The equipment is ready for use but no medical activity can be performed
- Backlog of tests and longer waiting time for appointments



### Patient Care

- Discomfort due to delays in tests scheduling
- Referral of tests to external centers



## Redesign IDI INVEAT plan to minimize its impact on care performance



### Radiological Protection Area

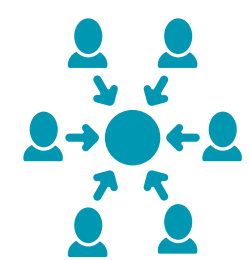
- Acceptance tests
- Radiation level control
- Installation conformity certificate
- NSC administrative procedure

The plan involves



### Infrastructure Area

- Works planning design
- Uninstallation, works and installation follow-up

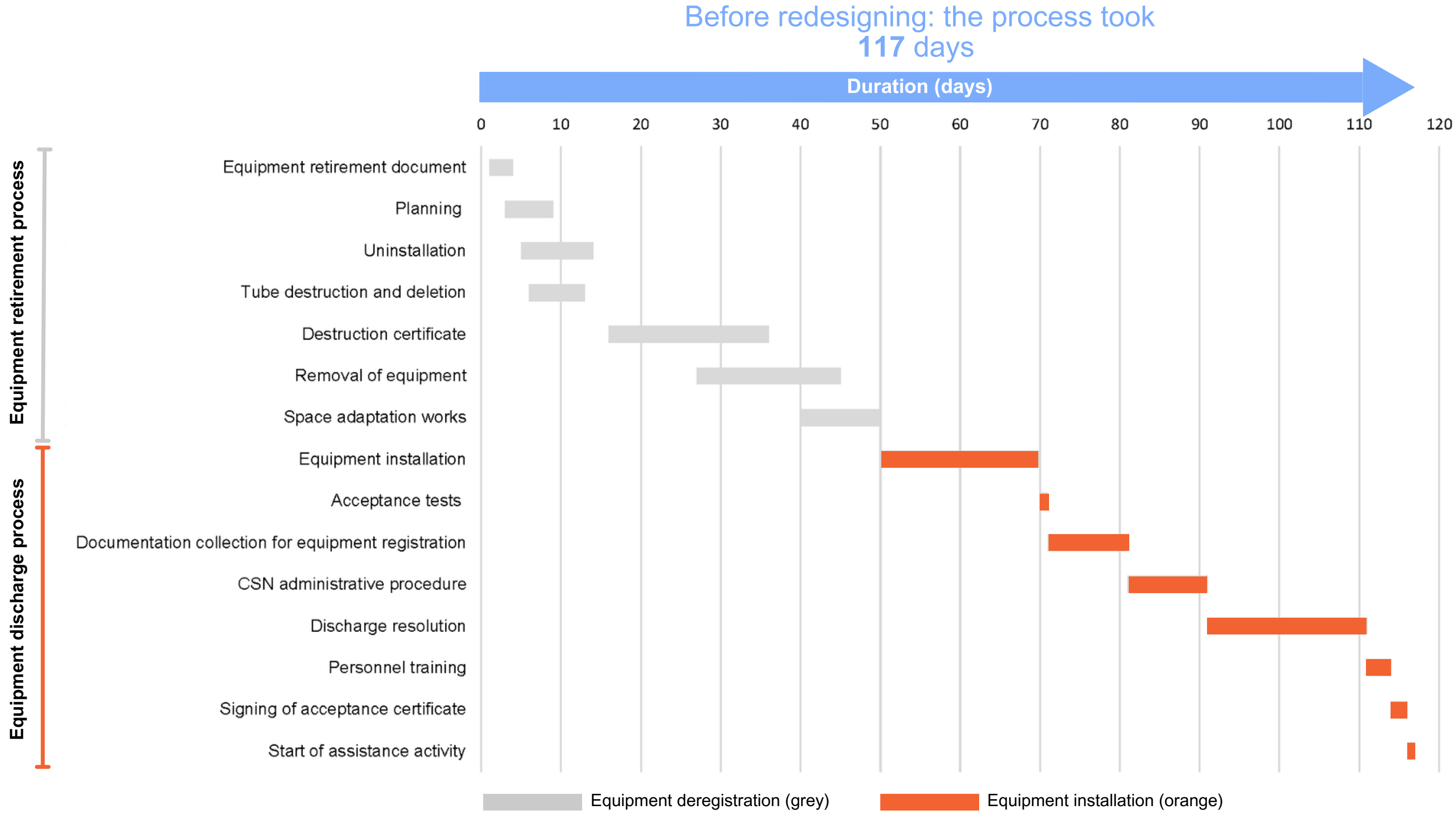


### External stakeholders

- Old equipment uninstallation
- Premises adaptation and works
- Equipment installation
- Equipment registration paperwork
- Staff training

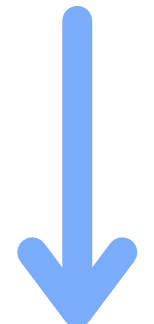


# Before redesigning: equipment retirement and installation process



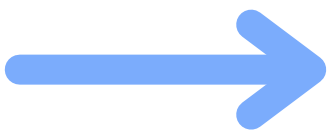


# Actions implemented (I)



**NEW**

- Real-time information of works status
- Collection of documentation during the process and not at the end of the process



| Action  |   | day reduction |
|---|---|---------------|
| Destruction certificate                             | → | 3             |
| Documentation collection for equipment registration | → | 5             |
| NSC administrative procedure                        | → | 8             |





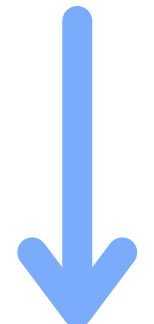


# Actions implemented (II)

 **Greater involvement of stakeholders**

**External stakeholders** 


Sales and technical assistance companies  
Radiophysics and radiation protection services



**NEW**

Commitment to reduce work time  
Less documentation preparation time after equipment installation



| Action  |  | day reduction |
|---|--|---------------|
| Uninstallation                                      | →  | 2             |
| Equipment removal                                   | →  | 4             |
| Documentation collection for equipment registration | →  | 5             |



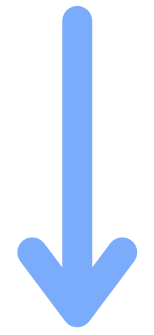


# Actions implemented (III)

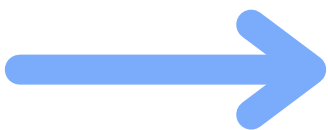
**Response time optimization** 

**Radiological Protection Area** 

**Infrastructure Area** 



- NEW**
- Work plan redesign
  - Definition of incoming documentation flow
  - Paperwork reduction and signature forms



**Action**

NSC administrative procedure

 **day reduction**

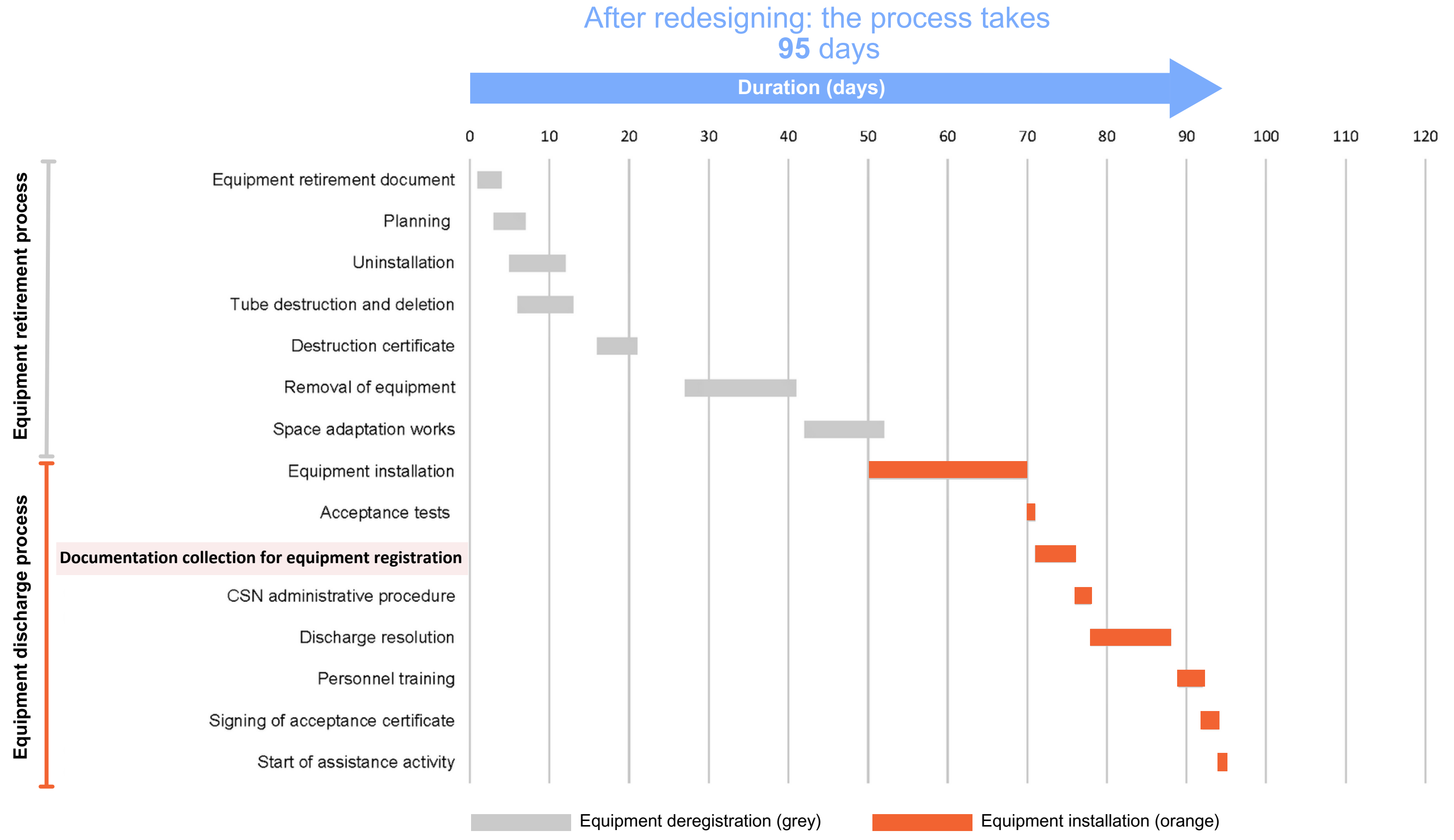








# After redesigning : equipment retirement and installation process





# Discussion



## The redesigned process:



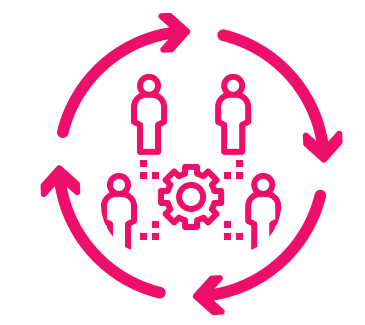
The whole process of deregistration, removal, installation and start-up was shortened by **22** days



Improved communication and team building



## Critical points that can affect the flow of the process:



Interdependence between the parts involved



Most of the documentation required depends on external companies