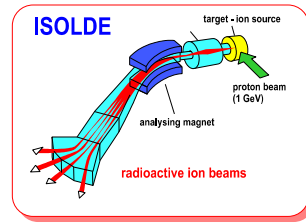
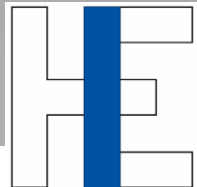


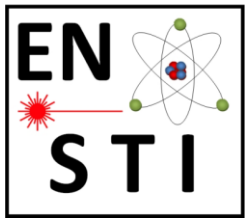
# ISOLDE WORKSHOP AND USERS MEETING 2010



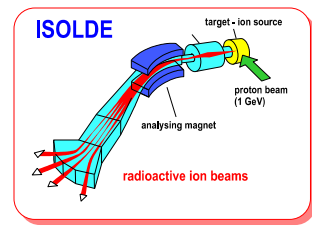
## Safety at ISOLDE

Ana-Paula Bernardes/EN-STI-RBS  
ISOLDE WORKSHOP 09 december 2010

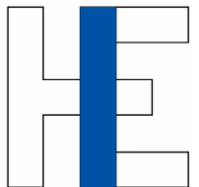


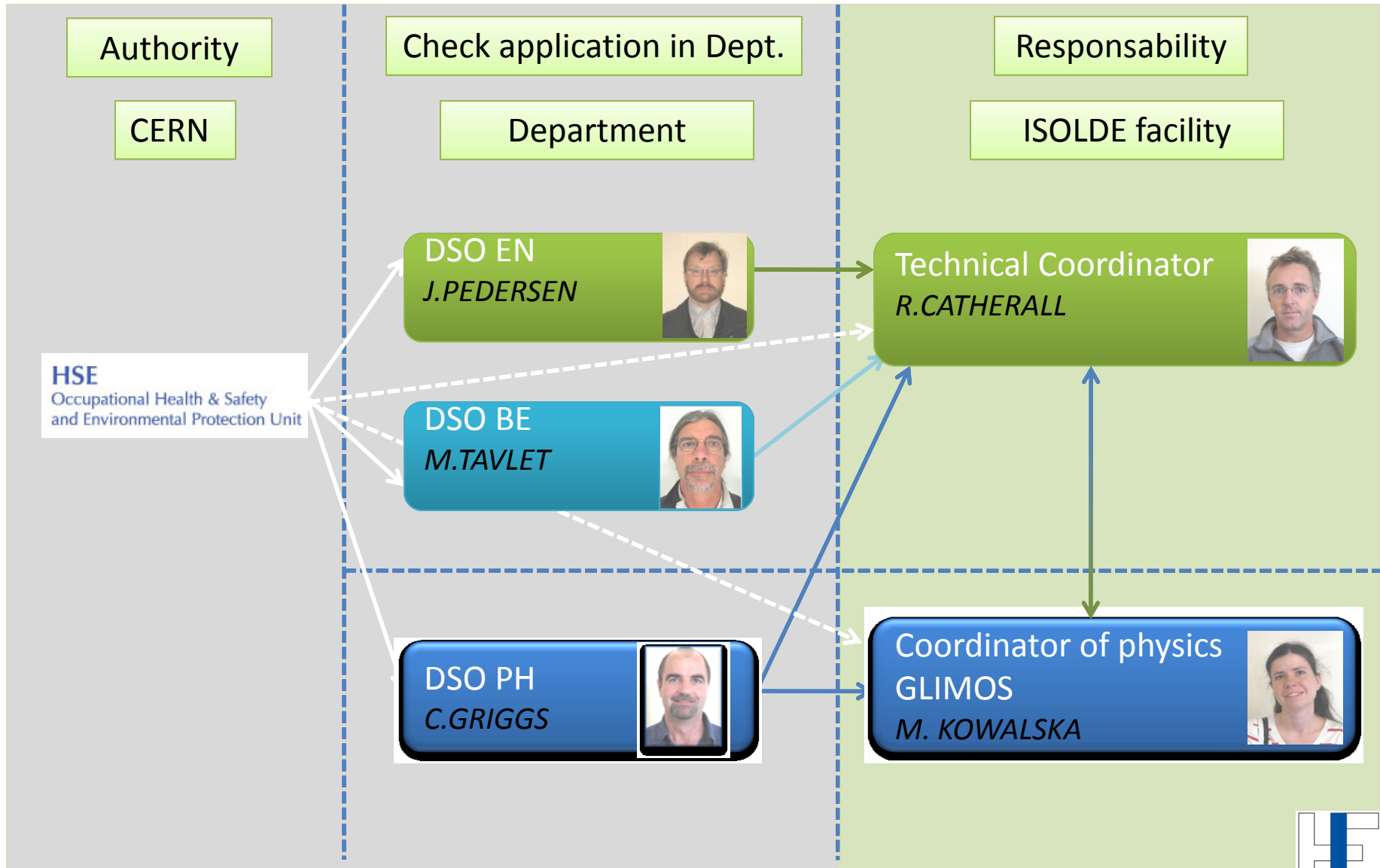
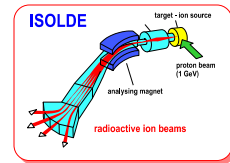


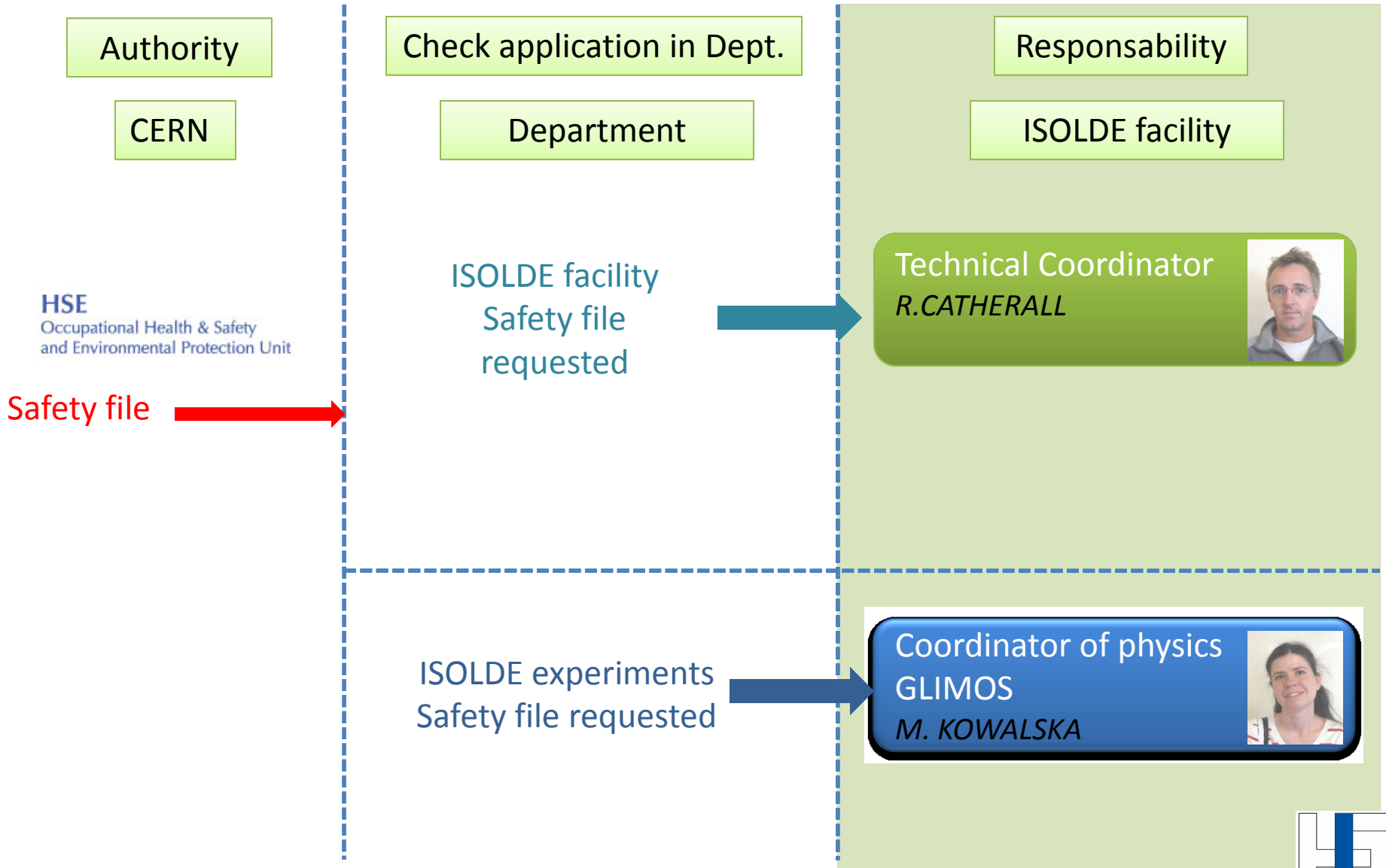
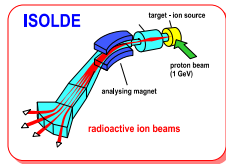
# ISOLDE WORKSHOP AND USERS MEETING 2010

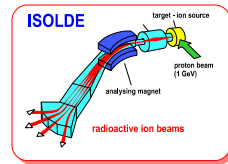


- ISOLDE Safety Structure
- Safety file
- Safety and Physics
- Conclusion



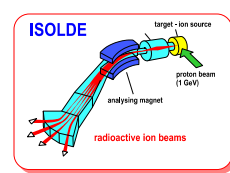






## Safety file for experiments

- Has been requested for all existing experiments
- Will be requested for all future experiments through INTC
- Will be examined during INTC Technical Advisory Committee
- A safety report to guide the users is available and has been distributed by HSE unit ([EDMS 1095136](#))



## Safety file for experiments



**HSE**  
Occupational Health & Safety  
and Environmental Protection Unit

### SAFETY REQUIREMENTS AND SAFETY FILE

**From:** HSE Unit  
**To:** [type project leader name]  
**CC:** [type name]  
**Date:** [Click here to enter a date.](#)  
**EDMS:** [type EDMS number]  
**Subject:** Safety requirements and Safety file of [type name of experiment/equipment]

#### PURPOSE OF THIS TEMPLATE

The purpose of this document is to provide project leaders with the Safety requirements applicable to experimental apparatus/equipment. The Safety requirements are defined on the basis of the CERN Safety rules, Host States regulations, European Directives, international standards and best practices.

This report also defines the contents of the Safety file of experimental apparatus/equipment. The Safety file is a set of documents that the project leader needs to keep during the life cycle of the experimental apparatus/equipment in order to demonstrate compliance of the experimental apparatus/equipment with the Safety requirements.

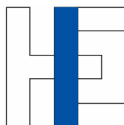
For each experimental apparatus/equipment the following procedure applies:

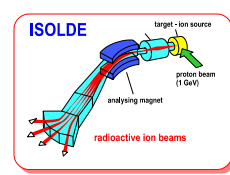
- 1- The project leader shall fill in chapters 1 to 3.
- 2- The project leader shall submit the document to the HSE Unit.
- 3- The HSE Unit shall fill in the chapters 4 to 6.
- 4- The HSE Unit shall submit the document to the project leader.

**Purpose of this template**

**How to use this template?**

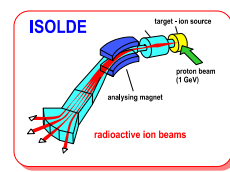
Thanks to J.Batista.Lopes/DGS-HSE





## Safety file for experiments

- **Chapter 1 to 3 : Description of experiments during operation, installation, maintenance phases and hazards identification**
- Chapter 4 and 5 : From description HSE unit will define safety rules applicable and **Safety file content** (list of documents)
- Chapter 6: Based on these documents the experiment will be authorized by HSE unit and PH DSO



## Experiments

Fill in Chapters 1 to 3 of  
EDMS 1095136

Read EDMS 1095136  
completed

Collect information  
requested on chapter 5  
= Safety file of  
experiment

Safety file of  
experiment

## HSE unit and DSO PH

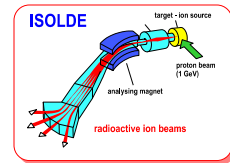
Complete Chapters 4  
and 5

Assess Safety file of  
experiment

Give authorization

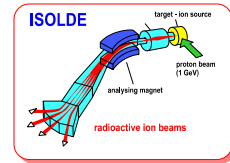
Contact person [J.Batista.Lopes/DGS-HSE](mailto:J.Batista.Lopes@DGS-HSE) or [C.Griggs/PH](mailto:C.Griggs@PH)





## Safety file for facility

- Will be mandatory for all primary areas – A list of facilities to be defined soon
- Will be requested for all future projects like HIE-ISOLDE
- No template is available – ISOLDE primary area chosen as “guinea pig”



<https://espace.cern.ch/isolde-mgt-zoneprimaire-securite/default.aspx>

Safety File - Production des cibles ISOLDE

Welcome Ana-Paula Bernardes |



## Safety File - Production des cibles ISOLDE

This Site: Safety File - Produc

[Home](#) | [Inventaire des dangers](#) | [Analyse de risque](#)

[Site Actions](#)

View All Site Content

### Descriptions Générales des Installations

Implantation et Infrastructures  
Principaux équipements

### Inventaire des dangers

#### Mesures préventives existantes

Moniteurs radiation  
Alarmes niveau 3  
Hotte de laboratoire

#### Elements importants pour la sûreté (EIS)

Contrôle d'accès  
ALARA

#### Accidents ou événements dangereux

Inventaire des accidents/incidents  
Moyens de secours

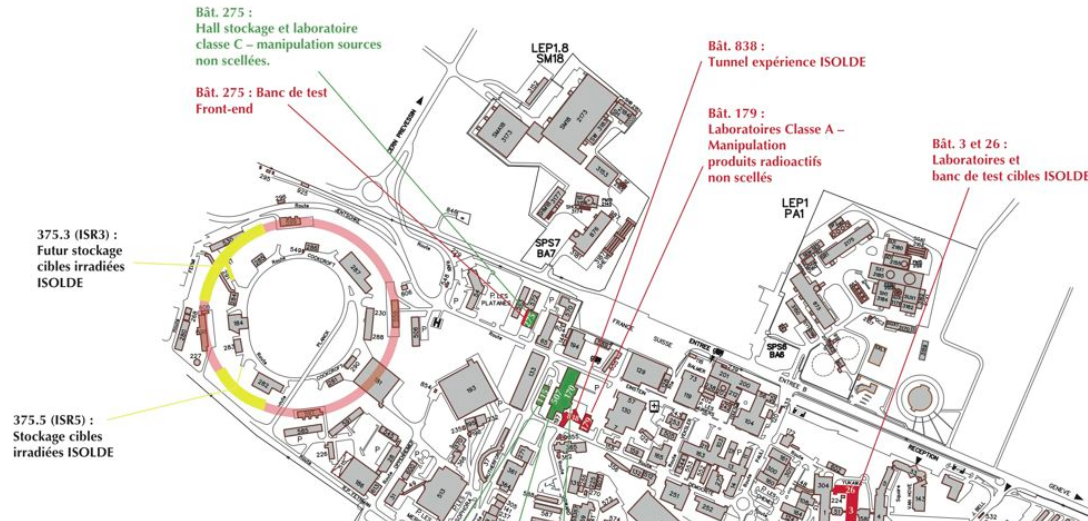
#### People and Groups

[Recycle Bin](#)

Ce site présente uniquement les informations de sécurité concernant les zones de production, de tests et d'exploitation, des cibles ISOLDE.

Ces zones sont visualisées en rouge sur le plan.

Les liens et états des autres "Safety files" concernant ISOLDE sont synthétisés dans la liste située à droite de cette page.



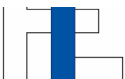
### Nouveautés

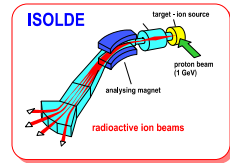
Ouverture du site à des membres extérieurs à la section EN/STI/RBS 30/09/2010 06:52 PM  
by Ana-Paula Bernardes

[Add new announcement](#)

### Liens vers "Safety file" concernant ISOLDE

Edit	Safety file	Bât.	Status	Coordination	Lien vers Safety file
	Safety files pour les EXPERIENCES ISOLDE	170, 115, 507, 275	En cours	PH	Accès aux fichiers Safe
	Safety file pour le projet HIE-ISOLDE		Non existant	EN	
	Safety file pour le Hall ISOLDE	170	Only REX safety file exist	EN/BE?	Lien vers REX Safety file
	Safety file pour les laboratoires ISOLDE	179	En cours	EN	Actuel site
	Safety file pour le tunnel ISOLDE	838	En cours	EN	Actuel site
	Autres installations ISOLDE	3, 26, 275 (uniquement installations EN/STI/RBS)	En cours	EN	Actuel site
	Safety file pour le stockage cibles ISOLDE	ISR3, ISR5	Non existant	DGS	





## Safety

Protecting people against hazards such as radiation or contamination

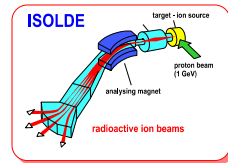
## Physics

Good beam time for physics

**Technical incident requesting access to target or separators area**

ALARA procedure : Delay intervention  
Exposing people to dose

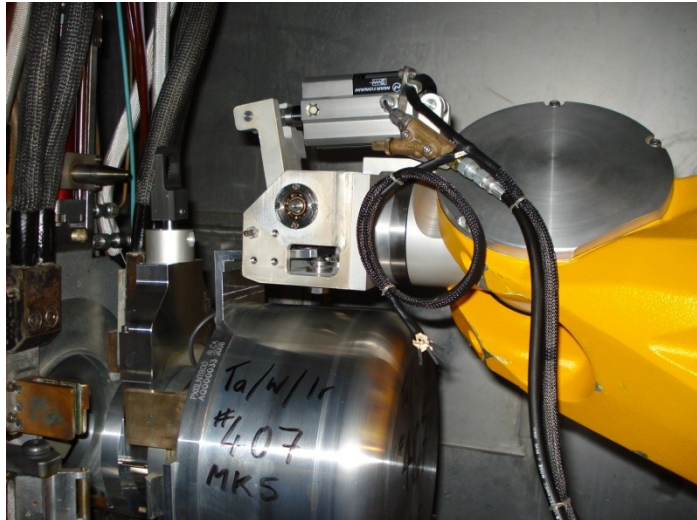
Delay on physics  
Physics program canceled



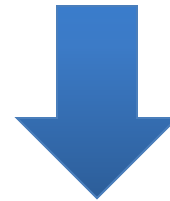
- Increase number of situations where an ALARA procedure will be requested
- Increase target cooling time before accessing to area
- Increase dose rate exposure if access needed

**Need to invest more time on Safety to reduce the number of situations which could delay physics and/or expose people to hazards**

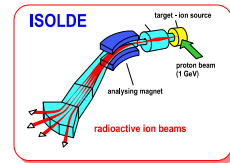
## Incident Feed-Back and follow-up:



- Find the root cause and take action
- Complete risk analysis – Safety file
- Use it for future robot specifications
- Document



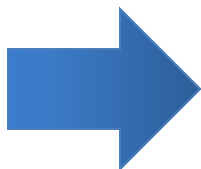
Reduce exposure to radiation  
Reduce delay on physics



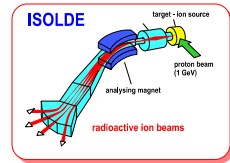
## Incident Feed-Back and follow-up:

Extended progressively to all important items such as:

- Alarm level 3 events
- ALARA feed-back
- Ventilation events
- Access control events...



Reduce exposure to radiation  
Reduce delay on physics



To improve Safety and reduce future delay on physics:

- Invest time and resources on Safety now
- Increasing Safety level progressively to fit with increase of intensity and energy for HIE-ISOLDE
- Learn from your experience

**THANK YOU FOR YOUR ATTENTION**

**QUESTIONS?**