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ENSAR2

European Nuclear Science and Application Research 2

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D14.5 – Chart of beams

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	Contributors:	M. Fadil, GANIL
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REFERENCES AND APPLICABLE DOCUMENTS

[1] https://**symfony**.com
[2] https://u.ganil-spiral2.eu/cribe/

LIST OF ACRONYMS AND ABBREVIATIONS

LAMP	Linux Apache Mariadb PHP

EXECUTIVE SUMMARY

The dedicated website “Chart of beams” has been developed using LAMP technology and the Symfony framework. The application contains two main parts : the chart of beams itself and an administration tools dedicated to specific users that give them the possibility to upload data of their facility.

INTRODUCTION

The CRIBE application was developped using standard technologies and infrastructure. Users can pick up elements in the “Mendeleiev view” or in the “N-Z chart” to access the data linked to the beam.

SECTION 1 CHART OF BEAMS

The menu allows user to choose a specific facility, a type of beam or a type of view. The central frame, depending of the user’s choice shows the elements which the user can select to reach the data.

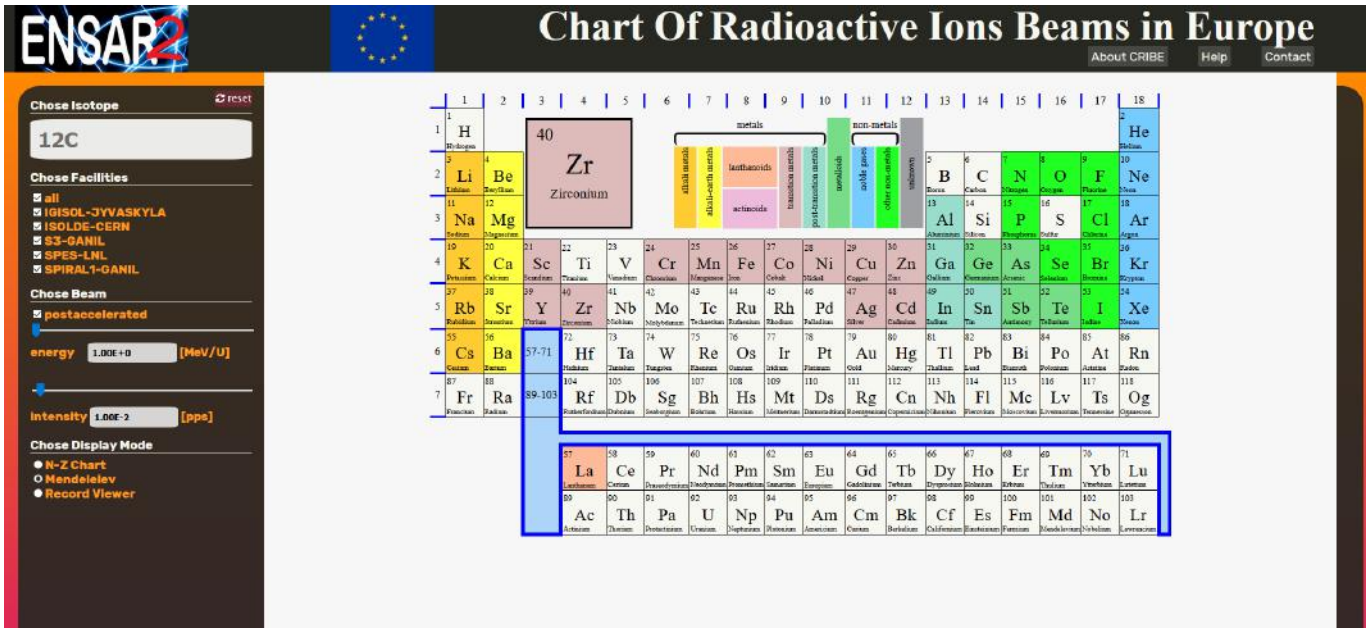


Figure 1 : chart of beams : Mendeleiev view

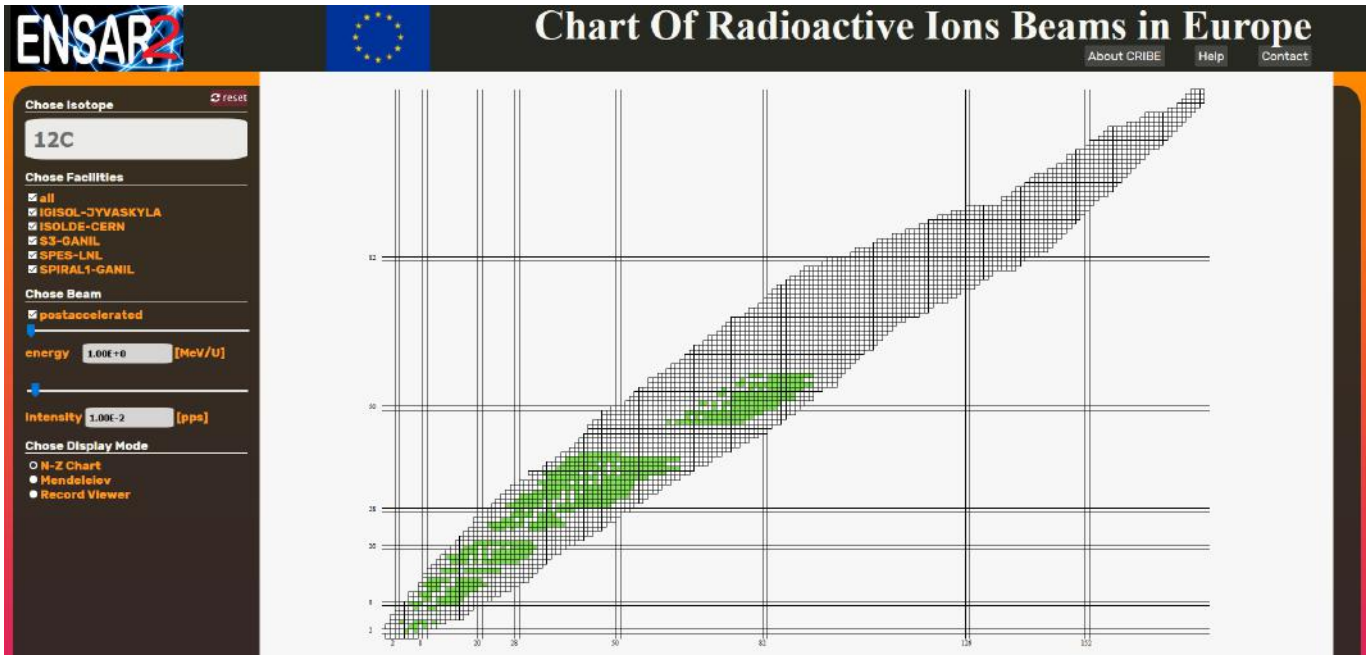
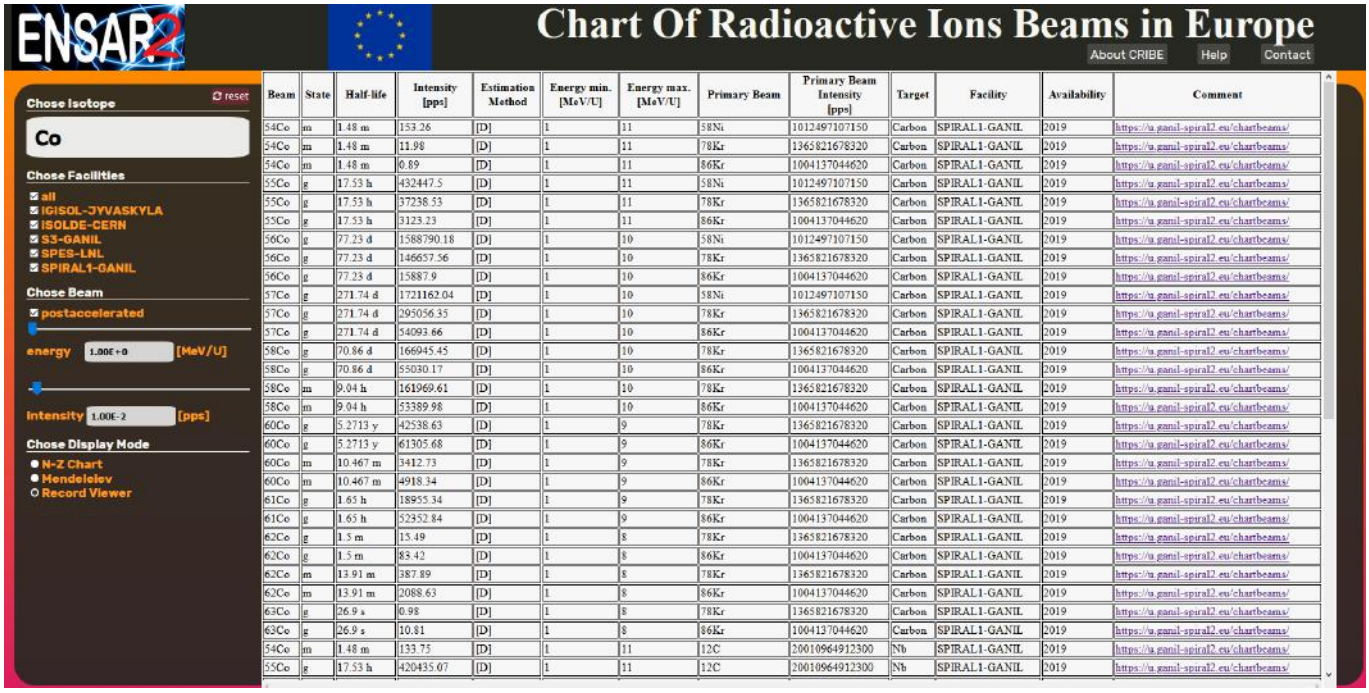


Figure 2 : chart of beams : N-Z view



Beam	State	Half-life	Intensity [pps]	Estimation Method	Energy min. [MeV/U]	Energy max. [MeV/U]	Primary Beam	Primary Beam Intensity [pps]	Target	Facility	Availability	Comment
54Co	m	1.48 m	153.26	[D]	1	11	58Ni	1012497107150	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
54Co	m	1.48 m	11.98	[D]	1	11	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
54Co	m	1.48 m	0.89	[D]	1	11	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
55Co	g	17.53 h	432447.5	[D]	1	11	58Ni	1012497107150	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
55Co	g	17.53 h	37238.53	[D]	1	11	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
55Co	g	17.53 h	3123.23	[D]	1	11	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
56Co	g	77.23 d	1588790.18	[D]	1	10	58Ni	1012497107150	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
56Co	g	77.23 d	146657.56	[D]	1	10	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
56Co	g	77.23 d	15887.9	[D]	1	10	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
57Co	g	271.74 d	1721162.04	[D]	1	10	58Ni	1012497107150	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
57Co	g	271.74 d	295056.35	[D]	1	10	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
57Co	g	271.74 d	54093.66	[D]	1	10	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
58Co	g	70.86 d	166945.45	[D]	1	10	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
58Co	g	70.86 d	55030.17	[D]	1	10	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
58Co	m	9.04 h	161969.61	[D]	1	10	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
58Co	m	9.04 h	53389.98	[D]	1	10	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
60Co	g	5.2713 y	42538.63	[D]	1	9	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
60Co	g	5.2713 y	61305.68	[D]	1	9	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
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61Co	g	1.65 h	18955.34	[D]	1	9	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
61Co	g	1.65 h	52352.84	[D]	1	9	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
62Co	g	1.5 m	15.49	[D]	1	8	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
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62Co	m	13.91 m	387.89	[D]	1	8	78Kr	1365821678320	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
62Co	m	13.91 m	2088.63	[D]	1	8	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
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63Co	g	26.9 s	10.81	[D]	1	8	86Kr	1004137044620	Carbon	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/
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55Co	g	17.53 h	420435.07	[D]	1	11	12C	200109649123000	Nb	SPIRAL1-GANIL	2019	https://u.ganil-spiral2.eu/chartbeams/

Figure 3 : chart of beams : data view

SECTION 2 ADMINISTRATION TOOL

The administration tool allow authenticated users to upload the data of the beams of the facility for which they are administrator. Data can be entered by hand or imported from files. Several functionalities allows the administrator to select or search beams.

Figure 4 : chart of beams : the administration tool

SECTION 3 ARCHITECTURE OF THE APPLICATION

The global architecture of the application complies with the GANIL recommendations and requirements.

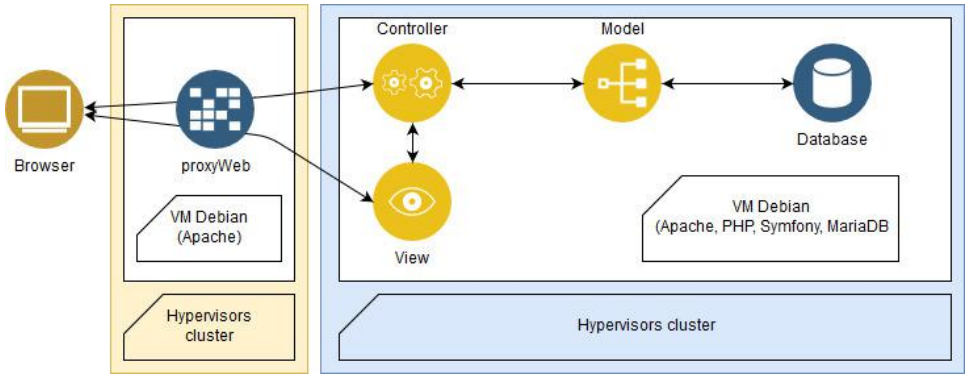

Figure 5 : global architecture of the application

CONCLUSION

The application is now running but some final tests have to be achieved, data from facilities has to be completed and eventually some visual improvements should be made.