

CARLO
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accenture



final report

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Supermarket of the Future

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Executive summary

To improve user experience and demonstrate how the consumer will buy food in the future, MLA has engaged CRA to explore the feature of two interactive tables modules, one refrigerated and one standard, similar to the ones installed in Supermarket of the Future in Bicocca, Milan.

The project explores how data could change the way that we interact with the food that we eat, informing us about its origins and characteristics and promoting more informed consumption habits. Every product has a precise story to tell: today, this information reaches the consumer in a fragmented way. But in the near future, we will be able to discover everything there is to know about the steak we are looking at: its origin, its nutrition values, the CO2 it produced, the chemical treatments it received and its journey to the supermarket shelf. As people browse different products, information will be visible on suspended mirrors augmented with digital information.

It is a truly innovative project, offering visitors the chance to try out possible future scenarios for the food supply chain and to explore a wide variety of products. Its goal is to expose new forms of interaction with food to the visitors, who can in turn provide their feedback.

The project has been developed by CARLO RATTI ASSOCIATI, in collaboration with Makr Shkr and Accenture.

The completed works are intended to be mobile, as MLA aims to move them from Australia to other countries, in order to get feedback from consumers about Australian meat through the digital information displayed on the tables' screens.

The first event where the Interactive tables have been presented to the public is Red Meat 2018, held on 20-23 November in Canberra, Australian Capital Territory. Australian red meat producers and stakeholders are invited to attend the event. The program includes producer tours, the latest research, innovation and marketing insights, a tradeshow and technology demonstrations and networking opportunities.

The main benefits that will arise from the work are:

- improve user experience when buying meat products
- consumers can be aware of what they buy and choose the products according to their specific needs
- farmers and breeders will see the point of spending some of their time on data collection
- data can be collected to meet the consumers' requirements or to focus production on some specific categories.

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1 Background and objectives

The project aims to improve user experience and demonstrate how the consumer will buy food in the future and therefore, intrigued by the Future Food District and Supermarket of the Future in Milan, developed by CRA for the Italian supermarket chain COOP, MLA has engaged CRA to explore the feature of two interactive tables modules, one refrigerated and one standard, similar to the tables installed in Supermarket of the Future in Bicocca, Milan.

2 Methodology

The project has been developed through the following steps.

2.1 Feasibility study

The Feasibility study has explored the following themes:

- identification of MLA needs related to the development of two mobile interactive table units of about 100x200 cm
- evaluation and assessment of the modifications to be made for the disassembly ability and mobility of the units
- evaluation and assessment of the modifications to be made for the implementation of the data-visualization system displaying aggregated values and interaction, based on the chosen products
- construction budget and timeline

2.2 Design development

During the Design Development phase the following elements have been detailed:

- definition of the overall strategy and evaluation of the punctual interventions on the host architecture, in order to make the product dismountable
- layout configuration, according to the mobility feature of the interactive table units
- narration of the user experience inside the installation, including diagram, storyboards and text
- wireframe of the principal interfaces and visualizations
- the design of the technological support needed to implement the Final Design inside any desired demonstration space, with a sufficient level of detail to be implemented by a third general contractor
- technical specifications of the abovementioned technologies and system architecture, both hardware and software.

2.3 Construction and delivery

CRA and MLA have identified the general contractor, provided a cost estimate and confirmed the construction and delivery supply to Makr Shagr srl.

2.4 Fine tuning on site

The IT team from Accenture has provided:

- MLA requirements collection and scope definition
- Supermarket of the Future Software Customization (mainly, pictures, logos and product info)
- Hardware assessment and testing
- Local test and fine tuning of the confirmed solution
- Setup of the showcase in the final location (Canberra, Australia)

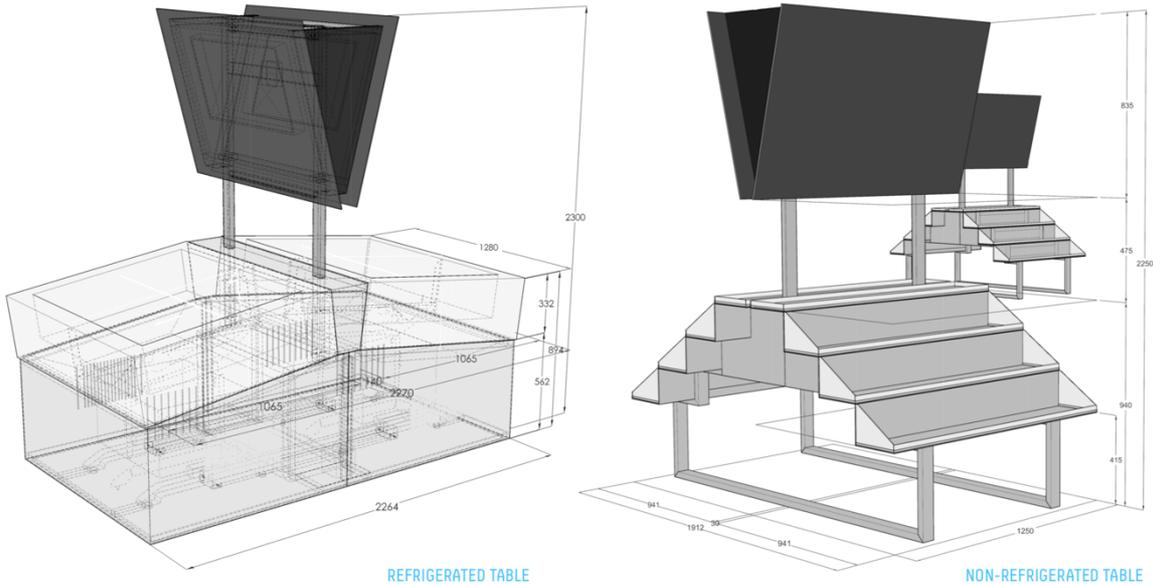
3 Results

3.1 Design

The interactive tables consist of two units, one refrigerated for meat products and one non-refrigerated for wines.

The refrigerated one includes two *Arneg Sendai2 – 85 Island units* in the lower part, clad by a unique stainless steel protective case.

The non-refrigerated unit is made up of four stainless steel shelves with plexiglass thin boundaries.

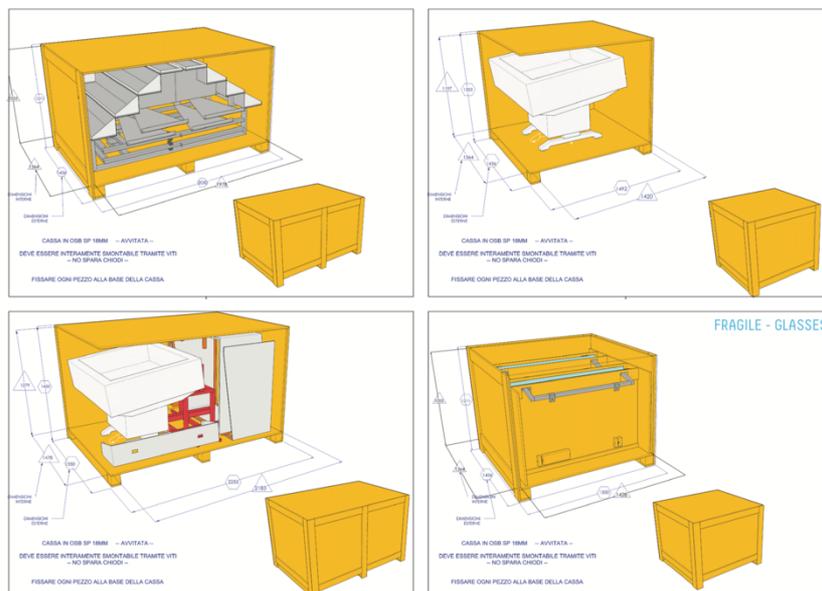


REFRIGERATED TABLE

NON-REFRIGERATED TABLE

3.2 Package and delivery

In order to deliver the interactive tables to Australia and to make sure they are easily and safely transportable, CRA provided 4 wooden cases, specifically designed for this purpose.



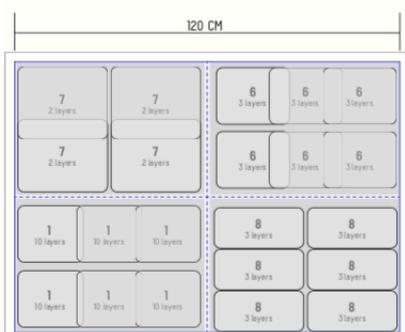
FRAGILE - GLASSES

3.3 Product to be displayed

MLA and CRA have chosen 12 Australian products: 8 meat packages - from Coles, Cleaver's, Richmond Valley - and 4 augmented reality wine types – all from 19Crimes.

The following meat products have been displayed on the refrigerated interactive tables:

MEAT PRODUCTS REFRIGERATED UNIT



PRODUCT	MAX PIECES	PRODUCT	MAX PIECES
1 Rump Steak	60 pieces	5 Ox Tail	12 pieces
2 T-Bone	60 pieces	6 Diced Beef	18 pieces
3 Sizzle Steak	16 pieces	7 Forequarter Chops	8 pieces
4 Scotch Fillet	36 pieces	8 Lamb Loin Chops	18 pieces



1 RUMP STEAK



2 T-BONE



3 SIZZLE STEAK



4 SCOTCH FILLET



5 OX TAIL



6 DICED BEEF



7 OX TAIL



8 DICED BEEF

Eight different kind of packed meat products will be displayed in the refrigerated units.

The following wines have been displayed on the interactive tables:

RED WINES

NON-REFRIGERATED UNIT



1 CABERNET SAUVIGNON



2 SHIRAZ



3 THE UPRISING



4 RED BLEND

The wines need to be placed in quadrants, as well as for the meat products. The shelf dimensions are approx. 22x120 cm, therefore 24 bottles are needed for each shelf (2 rows, 12 columns). Altogether 24x8 = 192 bottles, which means 48 bottles for each type of wine.

Four different kind of wines from the same producers will be displayed in the non-refrigerated units.

3.4 Installation at Read Meat 2018

At Read Meat 2018 the *Supermarket of the Future* installation has been a great success and all the people who passed by the exhibit area were immediately engaged to interact with them.









3.5 Colophon

A huge panel with colophon data and user instructions has been placed next to the installation, in order to make the visitor aware of the interactions they can engage with the counter display units. It is made of 1x2PartDrop - each drop 1200x2000 mm printed on 160 g/sqm silk finish paper then mounted on 5mm foam board.

SoTF
**SUPERMARKET
OF
THE FUTURE**

Designed by Italian innovation firm Carlo Ratti Associati, together with MLA-Meat & Livestock Australia Limited, "SoTF-SHOP OF THE FUTURE" at Red Meat 2018 – explores how data could change the way that we interact with the food that we eat, informing us about its origins and characteristics and promoting more informed consumption habits.

We invite you to explore the interactive tables, browse the different products simply by hovering your hand over them. Corresponding information will be visible above on suspended screens augmented with digital information. Learn about point of origin, recipes and wine pairings through the mere gestures of your hand.

a project by
CARLO RATTI ASSOCIATI® for **mla** MEAT & LIVESTOCK AUSTRALIA **red meat 2018**

together with **accenture** **MAKE SHAKE**

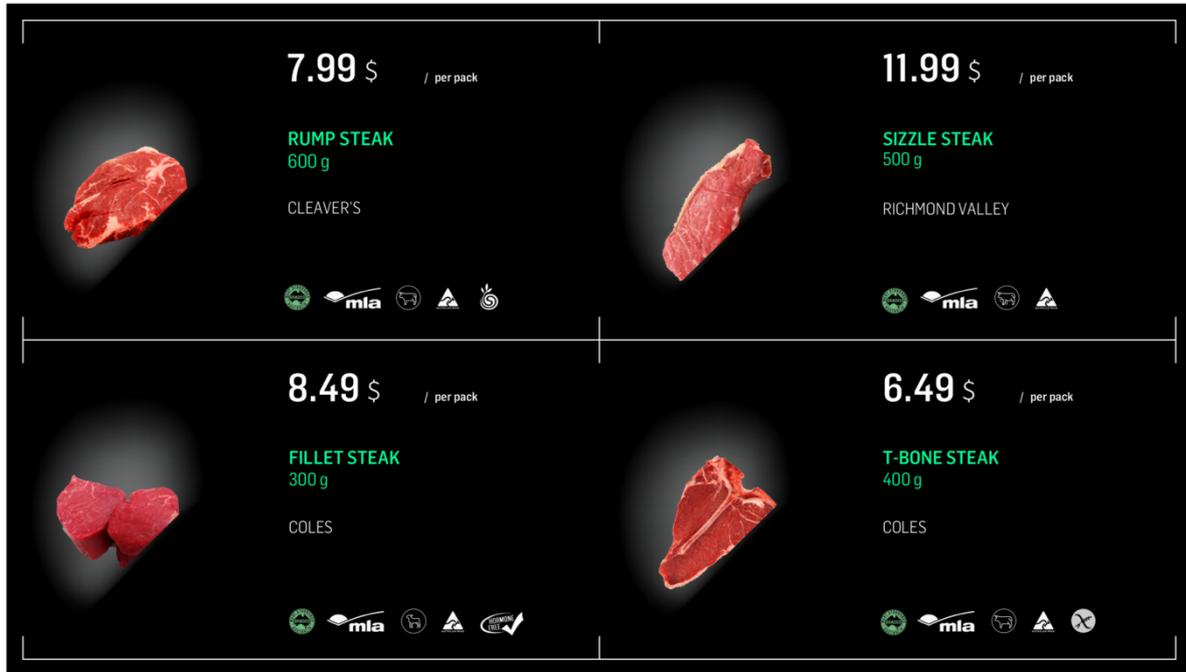
featured products from **coles** **Cleaver's** **VEAL** **19 Crimes**



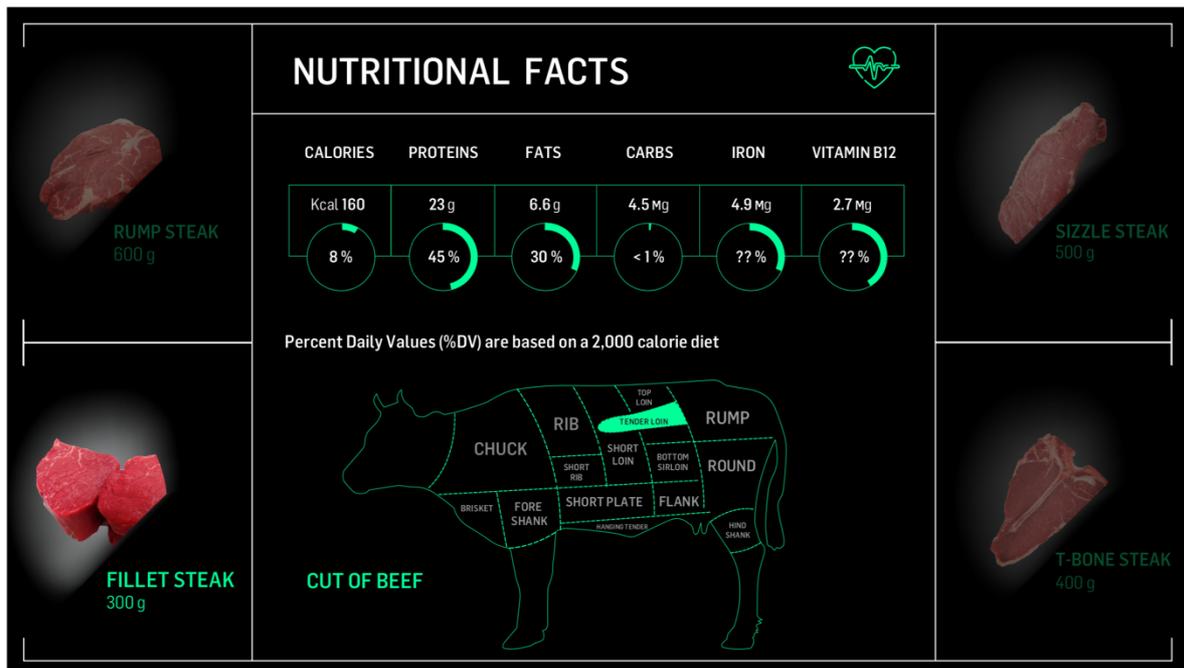
3.6 Data Visualization

The landing page includes 4 product typologies for each display and the following data:

- product id
- price per unit
- weight per pack
- specifications by icons.



After the client points at one of the four products, the corresponding first of three pages with details would show up: it includes nutritional facts and cut of beef or lamb or veal.



After approximately 6 seconds, the second page appears, showing cooking tips and wine pairing:



RUMP STEAK
600 g

COOKING TIPS



FILET AU POIVRE	COOKING METHOD	HEALTH INDEX	WINE PAIRING
	 45 min at 230 C°	 7/10	 2016 SHIRAZ 0.75 l 19 CRIMES This full and round bright red wine is the perfect accompaniment to the 3 recipes featuring the fillet steak.
	 15 min per side	 3/10	
	 Sauté on medium	 9/10	

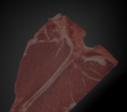


SIZZLE STEAK
500 g



FILLET STEAK
300 g





T-BONE STEAK
400 g

The third page appears after 6 more seconds and displays point of origin and breeding farm details:



RUMP STEAK
600 g

POINT OF ORIGIN





i Family owned and operated since 1985, the Miller family is proud of their hormone-free and grass fed cows



Sunny Side Farm

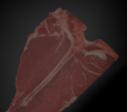


SIZZLE STEAK
500 g



FILLET STEAK
300 g





T-BONE STEAK
400 g

4 Discussion

The result has been fully satisfactory for both MLA and CRA, also in consideration of the very short time available to conclude the construction and delivery phases.

The unpredictable events that occurred, have been promptly faced and resolved, such as:

- damages procured to the box packages during transportation: boxes have been locally repaired in less than 3 days, just in time to be ready for disassembly and packing;
- overheating of fridges inside the stainless steel protective case: holes have been provided to allow hot air out and new cladding drawings will be sent to MLA.

The interactive tables could be easily implemented in local stores to engage customers and visitors in a new dimension of user experience.

5 Conclusions/recommendations

As a further development of this installation, new motion sensors could be used in order to better identify customers' intent and improve the user experience by using more sophisticated hand gesture to browse display pages.

Nonetheless, more accessible positions can be identified both for each hardware component (mainly Kinects and Nuc units), in order to speed up maintenance and data updating processes.

6 Key messages

Every product has a precise story to tell: today, this information reaches the consumer in a fragmented way. But in the near future, we will be able to discover everything there is to know about the steak we are looking at: its origin, its nutrition values, the CO₂ it produced, the chemical treatments it received and its journey to the supermarket shelf.

Through the *Interactive Tables* designed by CRA for MLA to represent their vision of the *Supermarket of the Future*, as people browse different products, every information will be visible on suspended mirrors augmented with digital information.

7 Appendix

Attached CRA Final Report - rev. 1.0