



# **Grace ADOIT EA Journey**

Built on **talent, technology, and trust**, Grace, a Standard Industries company, is a leading global supplier of catalysts, engineered materials, and fine chemicals.

The company's two industry leading business segments—Catalyst Technologies and Materials Technologies—provide innovative products, technologies, and services that enhance the products and processes of our customers around the world.

- 4,300 employees in 30 countries
- Customers in 60 countries
- 27 acquisitions since 2003
- Over 1,100 patents worldwide; almost 600 pending
- Headquarters: Columbia, Maryland USA
- Founded in 1854
- Standard Industries finalizes acquisition of Grace Sept. 2021



# #1

- FCC Catalysts
- Hydroprocessing
- Hydrocracking
- Polyolefin Catalysts
- Independent Polypropylene Process Technology Licensing
- Specialty Silica Gel

## 70%

Sales Outside the US

## 80%

#1 or #2 Business Positions

## Polyolefin Catalysts and Licensing

Grace's worldwide polyolefin catalysts and process technology licensing business has assumed a global leadership position over the past decade. We offer our world-class customers the broadest and most technically advanced portfolio of poly-olefin catalysts technologies that enable them to produce high-value, in-demand resins.

## ART<sup>®</sup> Hydroprocessing Catalysts

Our ART<sup>®</sup> Hydroprocessing catalysts technologies, provided through our joint venture with Chevron, are in high demand as the world moves to cleaner-burning fuels. A world-scale, state-of-the-art hydroprocessing catalysts manufacturing facility in our Lake Charles, LA complex opens in 2020.

## FCC Catalysts and Additives

Our Fluid Catalytic Cracking (FCC) catalyst customers—world-class refiners delivering fuels and petrochemical feedstocks—value Grace innovation as they seek to maximize their profitability, meet their sustainability objectives, and adjust their product mix to meet the demands of today and tomorrow.

## Specialty Silica and Pharma Fine Chemicals

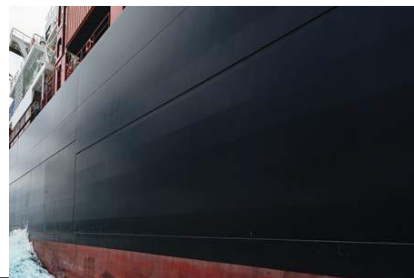
A global leader in specialty silica, our Materials Technologies business delivers silica-based and silica-alumina-based materials to world-class companies to improve their products and processes. This year, Grace acquired the Fine Chemistry Services business of Albemarle, which significantly strengthened Grace's existing pharma portfolio.

**Polypropylene Catalysts**  
**Polypropylene Process Technology Licensing**  
**Polyethylene Catalysts**  
**Chemical Catalysts**

**Hydroprocessing Catalysts and Additives for Clean Fuels**

**FCC Catalysts and Additives for Traditional Fuels and Petrochemical Feedstocks**

**Pharma/Nutra Ingredients, Processing Aids, and Fine Chemicals**  
**Coatings Ingredients**  
**Industrial Additives and Processing Aids**  
**Consumer Ingredients and Processing Aids**





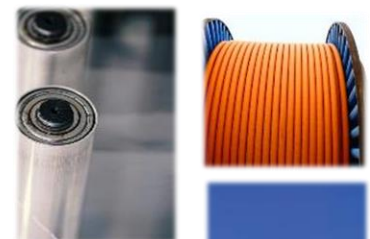
## Catalysts Technologies

## Materials Technologies

Petrochemical and Chemical

Refining

Coatings, Consumer/Pharma  
and Chemical Process



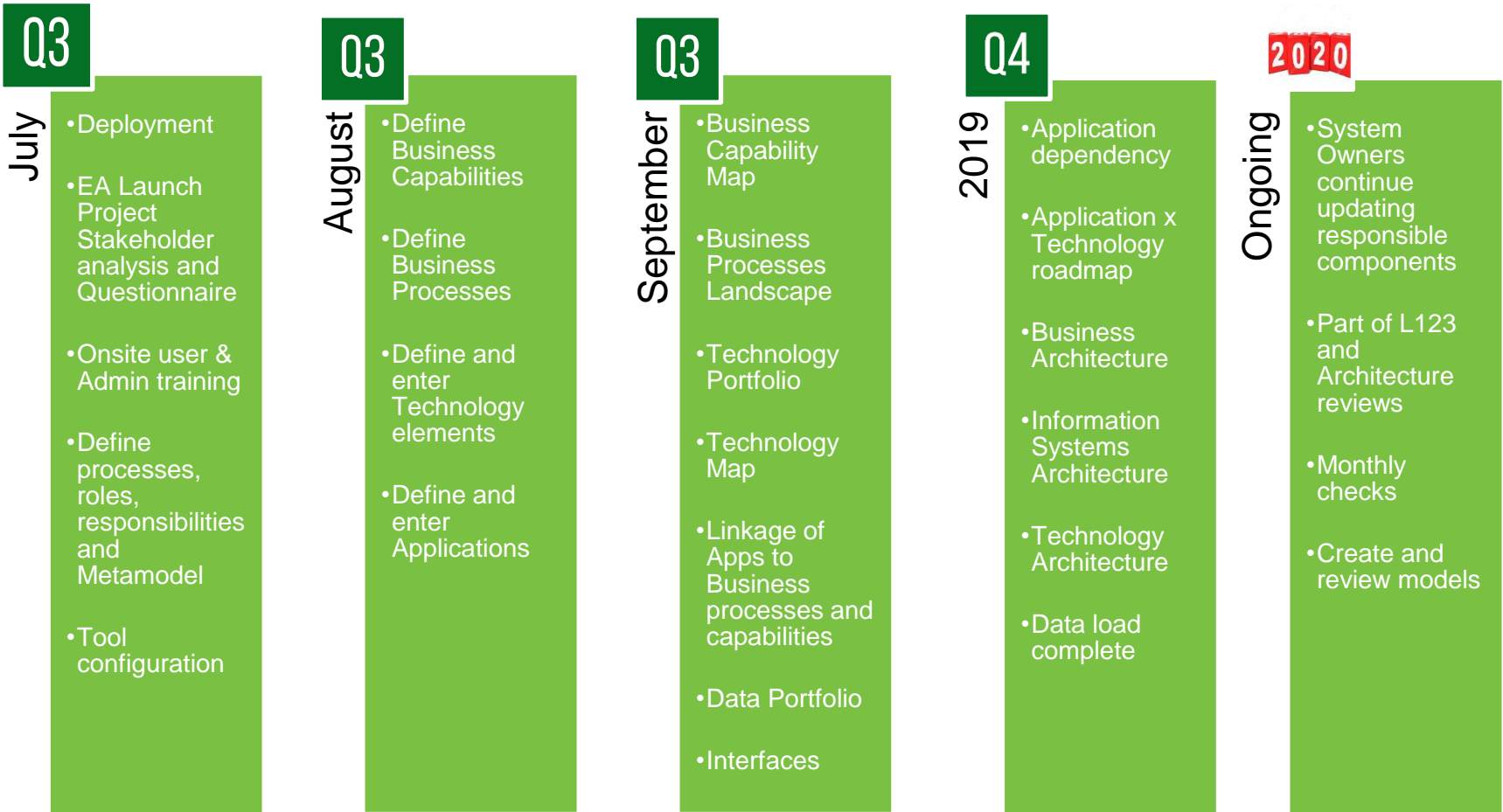
Specialty  
Catalysts

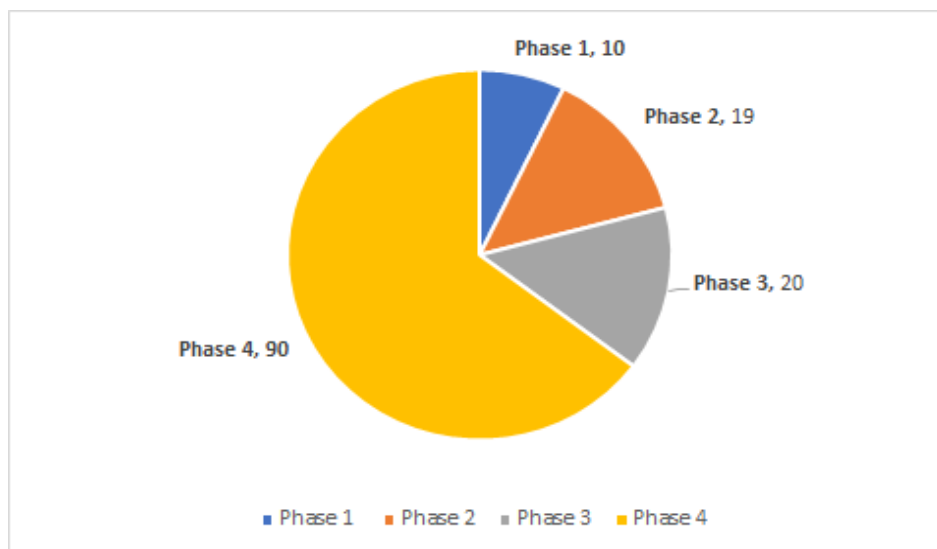
FCC  
Catalysts

Hydroprocessing  
Catalysts (ART)

Silica-based and  
Silica-Alumina-based Materials

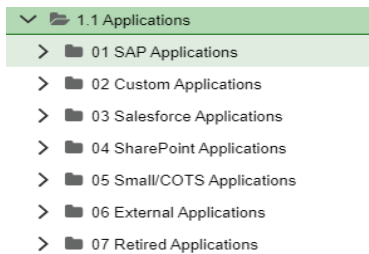
- Grace maintains information on Applications, Technology landscape in different places like SharePoint, ppts, visio, excel etc. and there is no standard for documenting interfaces between applications
- No standardize process to document dependencies between Business Capabilities and processes with Applications
- Lack of visibility for business or functional team to see which applications support what processes and capabilities
- Lack of standardize process for development of roadmap for applications and technology infrastructure
- No proper architectural reviews of Applications with current vs future state





- Offshore team-built Application and Business Architecture models for 139 Applications in the four phases of the project.
- Mapped Application, technology and Business objects for 139 applications.
- Generated out of box reports like Application Roadmap, Technology Roadmap, Application Portfolio, Business Portfolio, CRUD Matrix, & many more.
- Team has also created web view of the Home page called "**GRACE EA Home Page**" for Application Owners to easily access the Models and Reports.

- Daily data cleanup by the offshore team.
- Folder structure created in the tool for easy identification by App owners. New objects are moved to relevant folders



- New requests for specific reports or amalgamation of objects in a report is created by the offshore team.
- Search is created to track changes or missing links in the objects. The same is completed with the help of App Owners.

ID	Name	Equipment	Description	Vendor	Responsible Person	Responsible Person (Email)	Responsible Person (Phone)	Responsible Organizational	Referenced Organizational	Expected Business Capital	Expected Business Function	Expected Business Process	Referenced Business Object	Physical Interface	User Interface	Database	User Technology	Deployment Environment	Location	Category	Costs
10	AP Site Year Tax &	On Premise	Application to track and manage assets that a	[1] Grace Internal	[1] [Chicago Work Mktg.]	[1] [Tara Kopy (Kopy Tara)]	[1] [Linda Coate]	[1] [Cortina App]	[1] [None]	No entry	No entry	No entry	[1] [East, Business, East, Co.]	No entry	[1] [AP Site Year Tax]	[1] [AP Site Year Database]	[1] [Visual Basic .Net]	[1] [SQL, ACCESS]	[1] [New Ridge Lake Dist.]	Custom Ba	Low
11	ART Hydro Passes	On Cloud	ART Hydroprocessing® (ART) is a Chloro-an-	[1] [Cleveland]	[1] [Beverly/Donna Engert]	[1] [Kurti Vavra (Vavra Kurt)]	No entry	[1] [Cortina App]	[1] [Advanced Refining Subc-]	No entry	No entry	No entry	[1] [Customer Contacts, Leads]	[1] [All Hydro ART BP/SCP]	No entry	No entry	[1] [Advanced Composites -]	[1] [Admin Cloud (Subslove)]	[1] [Global]	Standard B	Medium
12	Art Manufacturing L	On Premise	ART manufacturing blocks are necessary prod-	[1] [Grace Internal]	[1] [Chicago Work Mktg.]	[1] [Tara Kopy (Kopy Tara)]	[1] [Natalie Pitt]	[1] [Cortina App]	[1] [Advanced Refining Subc-]	No entry	No entry	No entry	[1] [Product Labels]	No entry	No entry	[1] [Art Manufacturing Labels]	[1] [Visual Basic .Net]	[1] [SQL, ACCESS]	[1] [Chicago, Clark Bay, East]	Custom Ba	Low

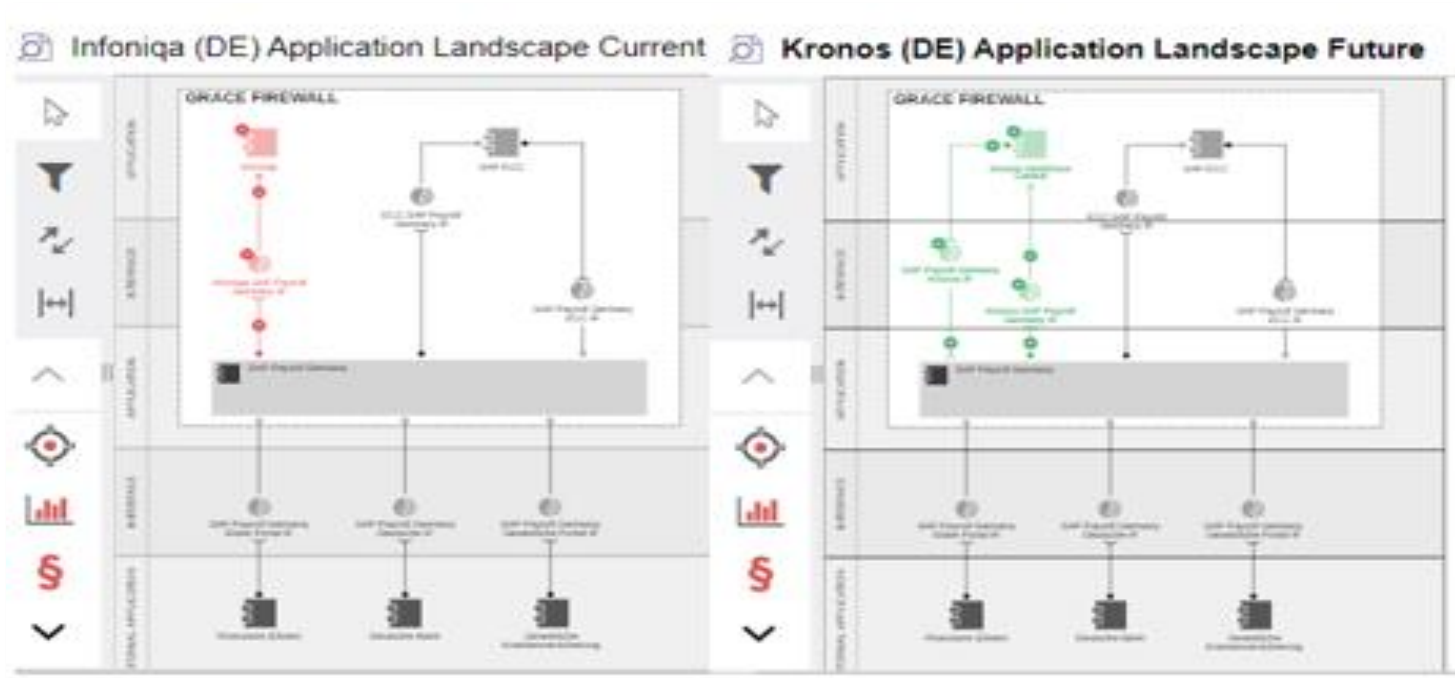
- Create new App owners or stakeholders in the tool.



- With each project at Grace, the architecture gets changed. Data Actuality is used to maintain data accuracy with continuous up-dations
- Frequency of Data Actuality,  
**4 months for Warning** alert in **Yellow**  
**6 months for Alert** in **Red.**
- Follow up by offshore team for objects in **Red** using data actuality report. The follow up action is executed till 100% adherence.
- App Owner review their objects and Confirm Data Actuality to turn the work item to **Green** Status



- Any new projects initiated in Grace, mandatorily needs to have an architecture in ADOIT tool. This is also part of the Project Plan and reviewed by Steering Committee.
- As a process , the App Owners requests ADOIT team for setting up the upcoming architecture in the tool. The Offshore team understands the objective of the project and accordingly set up architecture in the tool.



**GRACE**  
Talent | Technology | Trust™

Built on talent, technology, and trust, Grace high-performance specialty chemicals and materials improve the products and processes of our customer partners around the world.

[Click here](#) **APPLICATION ARCHITECTURE**

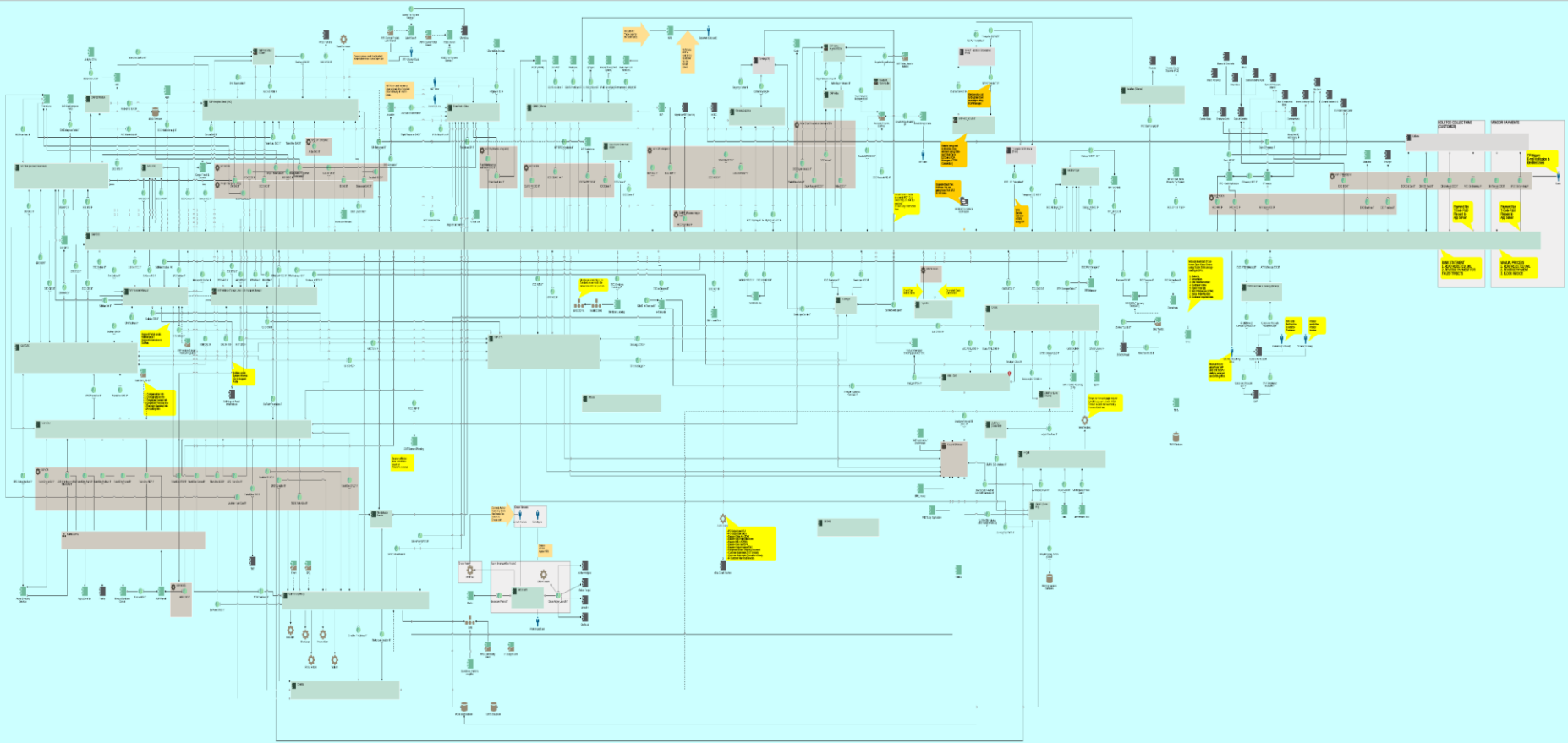
[Click here](#) **BUSINESS ARCHITECTURE**

[Click here](#) **TECHNOLOGY ARCHITECTURE**

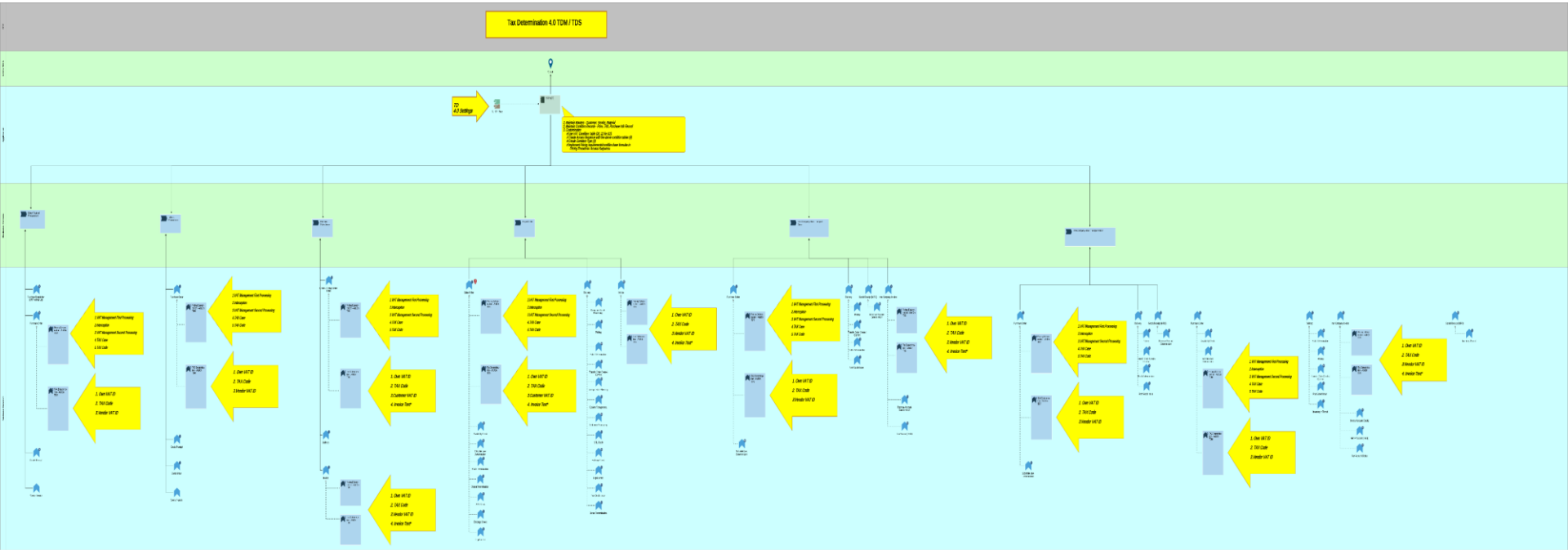
[Click here](#) **EXPLORE MORE...**

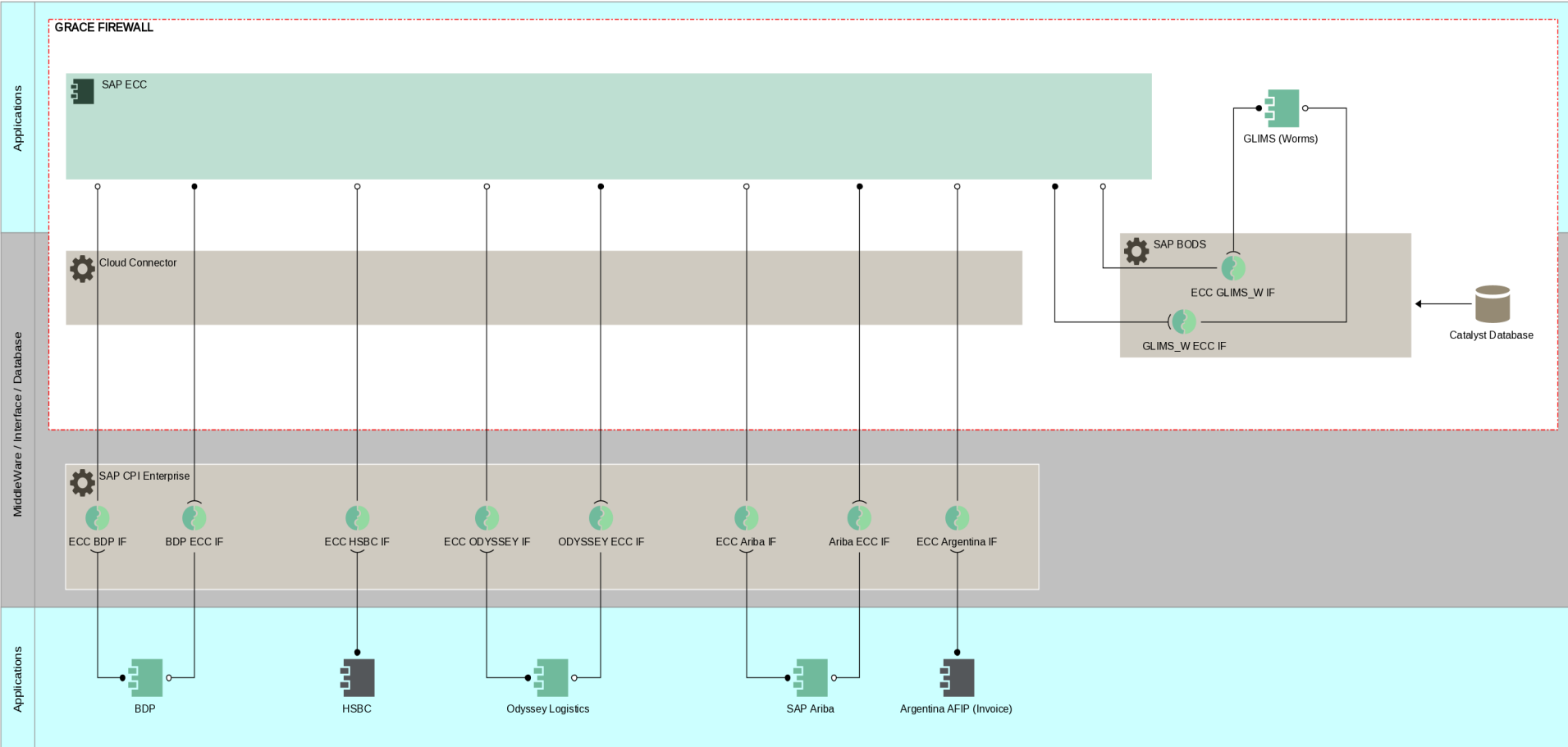
- In Application Architecture section Offshore team has created different types of models related to Applications.
- In Business Architecture section all, business-related reports are created.
- In Technology Architecture section all, technology-related reports are created.
- In Explore more section we have made some out of box models plus individual models of each applications. Below are few examples of some models.

## GRACE SAP ECC LANDSCAPE



- Legends:
- This represents the Application Area
  - This represents the Client Interface
  - This represents the Database Interface
  - This represents the External Application
  - This represents the Distribution
  - Being Done in this Area







- Grace onboarded a seasoned Project Manager at offshore to lead the project. This helped the team to map the applications appropriately and correctly in the tool.
- The BOC Team demonstrated different approaches in the ADOIT tool. They reviewed the mapped objects through out the project Lifecycle.
- Offshore Team created some of the most complex Application and Business architectures in the tool.
- The idea of the Grace EA Home page came from Offshore team. The ease and user-friendly home page is helping App owners to easily maneuver the tool.
- Created Search for easy access to different kinds of Queries for App Owners.
- Created tool acceptance with continuous presentations and trainings.

- Grace is currently using ADOIT version 11.1.1 and planned to upgrade the system to 15.0.1
- Business Architecture review and update
- 1. Presenting to senior leadership for expanding the tool potentially across all domains of Grace

**Questions?**

**GRACE**

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