



Product Ownership

Q3 2020

Contents

1.	New	Products	6
	1.1	HOPEX IT Business Management	
		1.1.1. Strategy and Transformation Roadmap definition	
		1.1.2. Business Architecture	
2.	Prod	luct Improvements 1	0
	2 1	HOPEX for the ArchiMate® Framework	
	2.1	HOPEX Business Architecture 11	
	2.2	2.2.1 "Boy in Boy" reports improvement 11	
		2.2.1. Box in Box reports improvement 11	
		2.2.2. New Glagranis	
	2 2	LODEX Business Drosses Analysis	
	2.3	AOPEA Business Process Analysis	
		2.3.1. Updated BPA Desktop	
		2.3.2. Diagramming improvements	
		2.3.3. Methodology simplification	
		2.3.4. Business Capabilities Maps	
		2.3.5. New Value Stream Diagram	
		2.3.6. Customer Journey Tabular Entry Improvement	
		2.3.7. APQC Framework	
		2.3.8. Reporting	
		2.3.9. Import / export	
		2.3.10. Other Various Improvements	
	2.4	HOPEX Integrated Risk Management	
		2.4.1. Key Risk Indicators	
		2.4.2. UCF integration	
		2.4.3. Profiles cleanup	
		2.4.4. Data Access Rules Review	
		2.4.5. IRM Functional Administrator – CRUD Policies	
		2.4.6. User Menu	
		2.4.7. HOPEX IRM – Contributor	
		2.4.8. HOPEX IRM – Internal Audit	
		2.4.9. Stored Risk Attributes	
		2.4.10. MS Excel Import/Export Template	
	2.5	New Questionnaire Builder	
		2.5.2. Questionnaire and Questions' Properties	
		2.5.3. Answering a Questionnaire	
		2.5.4. Existing Clients & Data Conversion	
		2.5.5. Unsupported Features & Manual Data Conversion	
		2.5.6. How to install the new module	
	2.6	HOPEX Privacy Management76	
		2.6.1. DPIA & Reusable Risks	
		2.6.2. Updated Record of Processing & DPIA Word Reports	
		2.6.3. GDPR Acronym Cleanup	

	3.1	Drag & dro	op Multiple Business document	. 137	
3.	UX II	mprovem	ents	137	7
		2.11.9.	Removal of Business Person	. 130	
		2.11.8.	Personal of "Purchase Person"	176	
		2.11./. 2 11 Q	Migration of Application Design features in IT Architecture	136	
		2.11.0.	Technical Architecture	. 136	
		2 11 6	Business Canability Diagram	. 136	
		2.11.4.	Profiles	. 136	
		2 11 4	Renorting	. 135	
		2.11.2. 2 11 2	Pronerty Dages	134	
		2.11.1.	Modeling Canability	12/	
	2.11.	. TUPEX II /	Diagramming Improvement	12/	
	2.10.		Architactura	12/	
	2 10	HODEA V	inlication Design	133	
		2.9.10	Itilities	. 131	
		2.9.9. IIX In	nprovement	. 130	
		2.9.8. Reno	nrts	. 122	
		2.9.7. Dash	board	. 121	
		2.9.6. Oner	rational Assurance	. 116	
		2.9.5. Polici	ies and Bules	.114	
		2.9.3. Dusin	Architecture	. 109	
		2.9.2. Dusin	ness Roles	107	
		2.9.1. Deski	ness Roles	. 106	
		2.9.1. Deski	top Improvement	. 106	
	2.9	HOPEX Inf	ormation Architecture	106	
		2.8.16.	Data Glossary	93	
		2.8.15.	Change MetaAttribute calculation process	93	
		2.8.14.	Improvement of lifecycle handling	92	
		2.8.13.	Menus and desktop	90	
		2.8.12.	Colors review	90	
		2.8.11.	New reports based on chord diagram	88	
		2.8.10.	Excel Import Template	88	
		2.8.9. Funct	tionality Treemap	88	
		2.8.8. Busin	ness Capability Treemap	87	
		2.8.7. Appli	ication Graph	86	
		2.8.6. Funct	tionality Breakdown	86	
		2.8.5. Time	d Business Capability Breakdown	86	
		2.8.4. Busin	ness Capability Breakdown	86	
		2.8.3. Com	pleteness Dashboard	85	
		2.8.2. Tech	nical Functionality Tree	85	
		2.8.1. UX In	nprovement	84	
	2.8	HOPEX IT I	Portfolio Management	84	
	2.7	HOPEX IT S	Strategy	84	
		2.6.8. Othe	r Minor Improvements and Modifications	82	
		2.6.7. Searc	ch Results	82	
		2.6.6. World	dwide Regulations and Regulatory Requirements	80	
		2.6.5. Actio	on Plans	78	
		2.6.4. User	Profiles – New Names	78	

MEGA

	3.2	Full text se	earch to refine your search results 140	
		3.2.1. Full s	search with dynamic filters 144	
	3.3	Autosaved	145 Indicator	
	3.4	Diagramm	ing improvements145	
		3.4.1. Abilit	ty to maximize/Minimize diagram panel145	
		3.4.2. Abilit	ty to insert a new activity within a sequence147	
		3.4.3. Add	or remove empty space in the Diagram147	
		3.4.4. Auto	matic Page Add149	
		3.4.5. In pla	ace edit on diagramming objects149	
		3.4.6. Drag	& drop objects from the toolbar 150	
		3.4.7. Selec	t link popup is only shown after dropping an object151	
		3.4.8. Diagr	ram grid152	
		3.4.9. Diagr	ram creation wizard153	
		3.4.10.	Intelibar on links are simplified154	
		3.4.11.	Gateway predicate on diagram edition mode	
		3.4.12.	Color selection of diagramming objects is simplified155	
	3.5	Floating to	bolbar icons	
	3.6	Calculated	l attributes UI157	
		3.6.1. Colui	mns with calculated attributes in Lists	
		3.6.2. Prop	erty page with calculated attributes157	
	3.7	New centr	alized color palette158	
		3.7.1. Upda	ated color palette of the desktop159	
		3.7.2. Upda	ated color palette of reports	
		3.7.3. Indic	ator type colour palette	
	• •	3.7.4. Auto	matic Conversions	
	3.8	Home pag	e tiles improvement	
	3.9	Simplified	Excel Import UI	
	3.10.	.Universal	desktop stylesheet with New UI165	
	3.11.	.Explorer d	esktop is now inherited from V4 desktop	
	3.12.	.Display filt	ters on top of the lists by default171	
	3.13.	.Other imp	rovements172	
		3.13.1.	Reports	
		3.13.2.	Autosaved Message	
		3.13.3.	Filters on lists	
		3.13.4.	Ungroup default groups on lists	
		3.13.5.	I ags & Favorites list view	
		3.13.6.	Minor platform improvements	
4.	Repo	orts Impro	ovements	3
	4.1	Default co	lors	
	4.2	Pie Chart .		
	4.3	Tables and	d Matrices	
	4.4	Bar Charts		
	4.5	TreeMap.		
	4.6	Graphs		
	4.7	Sticky Hea	der 182	
	4.8	One Butto	n "Refresh"	

 4.10. Empty Reports		4.9	One Chapter Report	18	83
 4.11Instant Report Table 4.12RTF Export 5. HOPEX Customizer 5.1 Report Studio Desktop 5.1.1. Central Container 5.1.2. View Property Pages 5.1.3. Report DataSet, GraphSet, TreeSet Characteristics 5.1.4. Folder of Report DataSet are available 5.2. Report Styles 5.2.1. Styles 5.2.2. Conditional Styles 5.3. Report Parameters 5.3.1. Use Tree for Parameter Input. 5.3.2. Limits of the Reports are fixed 5.4.1. Graph Report. 5.4.2. More Styles 5.4.3. Conditional Style is available 5.5. Box-In-Box 5.5.1. Interactivity 5.5.2. Features 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio. 5.8. Static Website 5.8. Static Website 		4.10.	Empty Reports	18	34
 4.12. RTF Export 5. HOPEX Customizer 5.1. Report Studio Desktop 5.1.1. Central Container 5.1.2. View Property Pages 5.1.3. Report DataSet, GraphSet, TreeSet Characteristics 5.1.4. Folder of Report DataSet are available 5.2. Report Styles 5.2.1. Styles 5.2.2. Conditional Styles 5.3. Report Parameters 5.3.1. Use Tree for Parameter Input 5.3.2. Limits of the Reports are fixed 5.4.1. Graph Report 5.4.2. More Styles 5.4.3. Conditional Style is available 5.5. Box-In-Box 5.5.1. Interactivity 5.5.2. Features 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7.0. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.1. Tree Reports in Studio 5.8. Static Website 		4.11.	Instant Report Table	18	34
 5. HOPEX Customizer		4.12.	RTF Export	18	85
 5.1 Report Studio Desktop	5.	НОР	PEX Customizer		185
 5.1.1. Central Container		5.1	Report Studio Desktop	18	85
 5.1.2. View Property Pages			5.1.1. Central Container	18	35
 5.1.3. Report DataSet, GraphSet, TreeSet Characteristics			5.1.2. View Property Pages	18	86
 5.1.4. Folder of Report DataSet are available			5.1.3. Report DataSet, GraphSet, TreeSet Characteristics	18	86
 5.2 Report Styles			5.1.4. Folder of Report DataSet are available	18	39
 5.2.1. Styles		5.2	Report Styles	18	39
 5.2.2. Conditional Styles. 5.3. Report Parameters 5.3.1. Use Tree for Parameter Input. 5.3.2. Limits of the Reports are fixed 5.4. Graphs 5.4.1. Graph Report. 5.4.2. More Styles. 5.4.3. Conditional Style is available 5.5. Box-In-Box 5.5.1. Interactivity 5.5.2. Features 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio. 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.2.1. Styles	19	90
 5.3. Report Parameters			5.2.2. Conditional Styles	19	91
 5.3.1. Use Tree for Parameter Input		5.3	Report Parameters	19	91
 5.3.2. Limits of the Reports are fixed			5.3.1. Use Tree for Parameter Input	19	91
 5.4 Graphs			5.3.2. Limits of the Reports are fixed	19	92
 5.4.1. Graph Report		5.4	Graphs	19	93
 5.4.2. More Styles			5.4.1. Graph Report	19	93
 5.4.3. Conditional Style is available 5.5. Box-In-Box 5.5.1. Interactivity 5.5.2. Features 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8.1. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.4.2. More Styles	19	94
 5.5. Box-In-Box 5.5.1. Interactivity 5.5.2. Features 5.6. TreeMap 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.4.3. Conditional Style is available	19	94
 5.5.1. Interactivity 5.5.2. Features 5.6. TreeMap 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8.1. Static Website 5.8.1. Dynamic Reports available in Static WebSite 		5.5	Box-In-Box	19	95
 5.5.2. Features 5.6. TreeMap 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.5.1. Interactivity	19	95
 5.6. TreeMap 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.5.2. Features	19	95
 5.6.1. Interactivity 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 		5.6	TreeMap	19	96
 5.6.2. Features 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7. Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.6.1. Interactivity	19	96
 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable 5.7 Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8 Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.6.2. Features	19	96
 5.7 Chord Diagram 5.7.1. Renderer Chord Diagram 5.7.2. Tree Reports in Studio 5.8 Static Website 5.8.1. Dynamic Reports available in Static WebSite 			5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable	19	€7
 5.7.1. Renderer Chord Diagram		5.7	Chord Diagram	19	99
5.7.2. Tree Reports in Studio 5.8. Static Website 5.8.1. Dynamic Reports available in Static WebSite			5.7.1. Renderer Chord Diagram	19	99
5.8 Static Website			5.7.2. Tree Reports in Studio	19	99
5.8.1. Dynamic Reports available in Static WebSite		5.8	Static Website	20	00
			5.8.1. Dynamic Reports available in Static WebSite	20	00

1. New Products

1.1.. HOPEX IT Business Management

A new solution which includes ITPM and complete it with Strategy Planning and Business Architecture modelling capabilities.

1.1.1. Strategy and Transformation Roadmap definition

- Simplification of Business Architecture/IT Strategy concepts and handling
 - No more use of work environment, events, drivers and SWOT matrix
 - No more distinction between Business and IT Stages: only Transformation Stage now
 - A single Business Capability Map is defined for the whole enterprise and contextualized in stage via exhibited capabilities
 - o Mission and Vision are captured as different texts for Enterprise
 - Goals and Strategies are limited to Enterprise (for global target definition)



• Objectives and Tactics are limited to Transformation Stage

- Possibility to link a Business Capability fulfillment to a Transformation Stage (to indicate when an application is used to cover which business capability).
- New Report Data Set to compare content of Transformation Stages This allows to produce this kind of report:

) MEGA

	S	9	5
	As I	Step	Step
🔶 Demand Management		🛃 HelpDesk IT	🛃 HelpDesk IT
🔶 Enterprise Architecture		Hopex IT Architecture	Hopex IT Architecture
🔶 Incident Management	🛃 HelpDesk IT	🛃 HelpDesk IT	🛃 HelpDesk IT
🔶 IT Service Building		SoftwareFactory 3.2	SoftwareFactory 3.2
🔶 IT Service Consumption Management		🛃 HelpDesk IT	🛃 HelpDesk IT
🔶 IT Service Design		Hopex-UML	Hopex IT Architecture
		Hopex IT Architecture	
🔶 IT Service Portfolio Management		Hopex ITPM+	Hopex ITPM++
🔶 IT Service Release	🚰 VulcanForge v4	VulcanForge v4	🚰 VulcanForge v4
Physical Reception	🛃 Borne Interactive +	Portail CG Public	🚰 Portail CG Public
🔶 Project Management	🚰 Global PlanIT	🚰 Global PlanIT	🚰 Global PlanIT
🔶 Relations with Partners		Portail CG Pro	🛃 Portail CG Pro
🔶 Relations with populations		Portail CG Public	Portail CG Public
Relations with Providers		Portail CG Pro	🛃 Portail CG Pro
🔶 Request management	🚰 HelpDesk IT	🛃 HelpDesk IT	🚰 HelpDesk IT
🔶 Sustainable Growth			🛃 GovAll

Or :

	Is 😌	- -	5
	As	Step	Step
🛃 Borne Interactive +	Physical Reception		
🛃 Global PlanIT	🔶 Project Management	🔶 Project Management	🔶 Project Management
🛃 GovAll			🔶 Sustainable Growth
		🔶 Request management	🔶 Request management
	🔶 Request management	🔶 Incident Management	🔶 Incident Management
📲 HelpDesk IT	🔶 Incident Management	🔶 Demand Management	🔶 Demand Management
		IT Service Consumption Management	IT Service Consumption Management
Honey IT Architecture		🔶 Enterprise Architecture	🔶 Enterprise Architecture
TOPEX IT Arcintecture		🔶 IT Service Design	🔶 IT Service Design
🛃 Hopex ITPM+		🔶 IT Service Portfolio Management	
🛃 Hopex ITPM++			🔶 IT Service Portfolio Management
🛃 Hopex-UML		🔶 IT Service Design	
Portail CC Pro		Relations with Partners	Relations with Partners
		Relations with Providers	Relations with Providers
A Portail CC Public		🔶 Relations with populations	Relations with populations
		Physical Reception	Physical Reception
SoftwareFactory 3.2		🔶 IT Service Building	🔶 IT Service Building
🛃 VulcanForge v4	🔶 IT Service Release	🔶 IT Service Release	🔶 IT Service Release

Page: 7 / **200**

- New wizard to initialize a Transformation Stage by duplication of an existing one ("from a baseline to target")
- New wizard to initialize projects from a Transformation Stage (creation of projects linked to Transformation Stage with their deliverables and impacted Business Capabilities).

MEGA

Projects Initialization From Business Transformation Stage	
Project Domain* GOVT Projects for IT Roadmap	>
Exhibited Capabilities	
Select sub-elements Expand the selected items	
	Project Transf
Physical Reception	^
🗈 🗋 🌌 Borne Interactive +	
🖬 🗹 🋃 Portail CG Public	
🛾 🗋 🧼 Planning Centres	
🗖 🗭 🧶 Project Management	
🗈 🗹 🏜 Global PlanIT	
🖸 🗋 🧶 Public Assistance	
🖸 🗋 🧶 Public Contracts	
🛛 🗋 🧶 Reception Options	
Relations with Partners	
🖬 🗌 🎽 Portail CG Pro	
E 🗹 🧶 Relations with populations	
🗳 🗹 🏄 Portail CG Public	
	~
	OK (Cancel)

	EX ≓ Select an object type ♥ Fil	object -> Q ~	Autosaved 🔖 🛞 🝞 🕞
≡	Transformation / Project Portfolios / GOVT Projects for IT Roadmap / Step 1-Por	I CG Public CG -	5×l∂× 💉 📮 Υ 🖡 🚨 🖫
^	🔓 All Projects Portfolios 🗸 🔞 💩 📳	Step 1-Portail CG Public	×
»	Local name †	\Xi Business Case 🗸	
	Digital transformation portfolio	· · · · · · · · · · · · · · · · · · ·	
4	🗆 🍃 Domaine @Cloud - Candidates + Ongoing Projects Portfolio (FR)	Transformation Purpose	^
\$.	🗆 🍃 Domaine @Cloud - Demands Arbitration Portfolio (FR)		T
~	🗹 🊔 GOVT Projects for IT Roadmap - Candidates + Ongoing Project	Transformation Purp Transformed Capability	
	🗌 🚔 GOVT Projects for IT Roadmap - Demands Arbitration Portfolio		
<u>ez</u>	🗌 🊔 Portefeuille Open Data et Ecosystème (FR)	** Relations with populati	
4	🗆 🚔 Portefeuille Refonte Offre (FR)		
٢	🗌 🍃 Project Domain-1 - Candidates + Ongoing Projects Portfolio		
P	🗌 🊔 Project Domain-1 - Demands Arbitration Portfolio	≪ < Page 1 of 1 > ≫ 🞜 Show 50 🗘 elements	Displaying 1 - 2 of 2
_	Project Domain-MSS TEST - Candidates + Ongoing Projects Portfolio		
(9	🗆 🎍 Project Domain-MSS TEST - Demands Arbitration Portfolio	Project Deliverables	^
- 🖽 🔅			т
2		Local name Impact Type Delivering Milestone	Delivered Capability
/84		Portail CG Public Reli	ations with populations, Physical Recepti
7			

- New report to expose state of capabilities in a specific transformation stage (As Is, To Be or intermediary)

p 1 Reporting V										
age Capability Overvie	w ¥									
Local Economy				7	ے در ا		\$	☆ Public Contracts		
🛠 🤙 Agriculture	Short Supply Circl	☆ cuits 🔶 Social and C	☆ ommunity Economy	☆ 🔶 Tourism	★ On Line Services	☆ ~ Subsidies	☆ 			
Relations						☆ 🗉 🔶 Sport / Lei	sure		ጵ	*
Physical Reception	n 🔶 R	슜 Relations with Partners	Relations with point	☆ opulations	E 🕏	र - Events	☆ → Initiations	★ ♦ Leisure Camps	☆ Sites and Itineraries	
 4 item(s) Public Portal Interactive Termina 2020 		item(s) ofessional Portal	2 item(s) 2 item(s) Public Portal O Improve knowledg of user population	e	I item(s) Professional Portal)				
 Improve knowledge of user population Achieve 70% satisfaction in the annual reception 	e									

- New report for project deliverables alignment with Transformation Stage

€ C Scale step: year	r									
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	As Is									
				Step 1						
	Step 1	1-SoftwareFactory 3.	2							
	Step 1-	HelpDesk IT								
	St	tep 1-Professional Po	ortal							
	s	Step 1-VulcanForge v	4							
	S	tep 1-Global PlanIT								
	S	tep 1-Interactive Ter	rminal 2020							
							Step 2			
				Step 2-HelpDesk IT						
				Step 2-GovAll						
				Step :	2-Public Portal					

GOVT- IT Transformation Projects Deliverables Planning and Impact

- Value Stream description inherits all improvements provided by HOPEX Business Process Analysis, especially the new diagram (see dedicated chapter).
- New report for Value Stream/Business Capability assessment synthesis

	Business Value	Capability Effectiveness	Capability Efficiency	Financial Impact
🗆 🍛 Consumer Bank Loan				
📖 🗆 ⊃ Attract Customer				
💷 👌 Operational Marketing		3 - Somewhat Effective	3 - Somewhat Efficient	3 - Moderate
💷 👌 Contact Management		1- Extremely Effective	4 - Slightly Efficient	2 - Low
📖 🗆 ⊃ Quick Rate Quote				
💷 👌 Offer Management		5 - Not Effective	2 - Very Efficient	5 - Very High
🗽 🗆 ⊃ Complete Loan Application				
💷 👌 Loan Management		2 - Very Effective	2 - Very Efficient	3 - Moderate
📖 🗆 ⊃ Eligibility Decision and Underwritting				
💷 🔶 Loan Management		2 - Very Effective	2 - Very Efficient	3 - Moderate
💷 🔶 Regulatory Compliance		2 - Very Effective	2 - Very Efficient	3 - Moderate
🗽 🗆 🔁 Award Loan				
💷 🔶 Loan Management		2 - Very Effective	2 - Very Efficient	3 - Moderate
🗆 🗆 🏷 Setup Payment Terms and Manage Repayment				
🖢 🛛 🔶 Bank Account Management		3 - Somewhat Effective	3 - Somewhat Efficient	4 - High
🗽 🗆 ⊃ Close Loan				
💷 🔶 Loan Management		2 - Very Effective	2 - Very Efficient	3 - Moderate

1.1.2. Business Architecture

MEGA

- Business Architecture concepts that are not implied in Strategy definition can be activated via an option. Activating this option allows to handle:
 - Business Architecture environment
 - Business Functional Area and Business Function
 - Business Partner Group and Business Partner

2. Product Improvements

2.1.. HOPEX for the ArchiMate® Framework

- New embedded graph impact analysis reports
 - $\circ~$ At model level, displaying the whole model contents
 - $\circ\;$ At element level, displaying the incoming and outgoing relationships and neighboring elements

The displayed relationship types can be filtered

ArchiMate Model 👻		
		A
1. ArchiMate Model Graph		
🝸 Relationship Type 🛭 🖝		3D 🔍
Flow ×	M	
Access	Auto	Cad
Aggregation		
Assignment	ooking Management	
Association	<i>i</i>	
Composition	· · · · · ·	
Influence	Autocad in APPCO of	000
Realization	APPC0.com -> Booking Management	
Serving		
Specialization	`````	() A
Trigger	· · · ·	O

2.2.. HOPEX Business Architecture

MEGA

HOPEX Business Architecture is now deprecated and superseded by HOPEX IT Business Management new offering.

2.2.1. "Box in Box" reports improvement

Breakdown as well as Assessment report templates have been redesigned to integrate the new 'box in box' renderer (see corresponding section in HOPEX Customizer>Reporting below); they now support:

 Multiple criteria rendering thanks to user-defined pictograms as well as color fill of boxes

Cintena							
Shape		Object Type		Criterion			
O circle	~	Business Capability	~	Business Value	~	×	
\wedge triangle	~	Business Capability	~	IT Support	~	8	4

- Automated legend computation
- In-report depth of reporting selection
- In-report unfolding of all fulfilling solution building blocks

2.2.2. New diagrams

Existing DoDAF diagrams are made available in Business Architecture

- Org-chart Structured Diagram, for Org-units
- Business Capability (Map) Tree Decomposition Diagram, for Business Capability Map and Capability, enabling free depth diagramming of Business Capability Maps, when a specific layout and many levels of capability is desired

MEGA

• Note: the legacy Capability Tree Diagram is protected by the legacy diagram option, and can be reactivated if necessary

2.2.3. New Reference Models

2.2.3.1. Business Architecture Guild Reference Models

The Capability Maps from the Business Architecture Guild <u>https://www.businessarchitectureguild.org/</u> Reference Models are provided as solution pack on the HOPEX Store.

Note: to be able to install this solution pack, you'll need to be a Business Architecture Guild Member.

2.2.3.2.BIAN Capability Maps conversion toolkit

• A BIAN capability map conversion toolkit <u>has been made available on the</u> <u>HOPEX Store</u>, to help with the translation of BIAN Framework in ArchiMate format into the HOPEX Business Capability Map format, usable with HOPEX Business Architecture or IT Portfolio Management

BIAN Capability Maps in HOPEX for ArchiMate® Framework

	nin / win / home laden later (kines)					0	 * - B G R
* • •	Autors table Autors table Bell Standard Bell Stan	1000 1000	And the Lorent and Lor	IIIA V S C Q charanteriti mengen Bernanteri Researcher	A State of S	Promoter Pr Broughers Broughers Product Roog Product Roog Product Roog Product Roog	Anton Tools Anton A
	-d Anna handa	5			Payment Wanapment &		

BIAN Capability Maps in HOPEX IT Portfolio Management



		_								ч р Ш	- Q.D
🛱 Cost	C Portfolio: Business Capability Map: Filter For Realization:	Busines	s Capabilities Top Lev	el View							
B Application	Depth:	3	0								
Technology	Refresh the report										
	E 1. Composite	Xassifier I	Box in Box								\$
					🔶 Dusine	a Capabilities Top Level	tes.				
			Bank Operations			+ Channels			Customer and Sales		
	Culture	ÐC	Physical Cash Management	Workflow Management	Channel Managere	et Pat	er Management	Customer Managemen	e Matering	Sales Management	
			Enterprise Enabling		+ Exterpris	Management and Contr	oling	*	Product and Service Enable	n .	
	Facility Equipment Mar	and aperment	Human Capital Management	identity & Access Management	Dusiness Direction Management	Dusiness Entity Management	Finance Management	Agreement Management	Financial Instrument Management	Financial Plan Management	
	- Intern Managem	ier (Legal Support Management	Ventor & Supplier Management	Fraud Management	Investor Management	Poley Management	Inestnest Portisio Management	Issued Devce Management	Money Movement Management	
					Risk Management			Order Management	Payment Management	Product Management	

2.3.. HOPEX Business Process Analysis

Various improvements have been delivered in this update, as part of a simplification effort, aiming at an easier-to-use product, especially for new or casual users.

2.3.1. Updated BPA Desktop

- Non-explorer viewer and contributor legacy profiles have been removed, as well as process risk designer profile (merged into the "Process Manager" profile)
- The HOPEX Business Process Analysis Desktop is updated with latest stylesheet
 - The HOPEX Business Process Analysis Desktop has been migrated to the new UI/UX HOPEX standard with updated UI and icons.
 - New diagram / New tabular diagram tile enables 'one click' new process diagram creation
 - Less tiles on the desktop pointing to modernized lists with combo (e.g. 'all org process', 'my org process' merged into one tile and landing listview)



- Improved menus / options consistency
- Tree views have been converted to tree list views, so that the floating toolbar is now available on the standard tree views
- The BPA Property Pages have been updated to the latest UI/UX standard (e.g. buttons instead of drop boxes for low values lists, Multiple combo boxes controls for types instead of lists, etc.)

2.3.2. Diagramming Improvements

2.3.2.1.New Shapes & Icons

• The process diagram shapes set has been updated

MEGA

- Lighter vs. V1R3 shapes
- Empty shape vs. full shapes
- \circ Borders in color vs. borderless
- Black text vs. white text
- \circ More readable



2.3.2.2."Easy diagramming" tabular entry various improvements

- Simplified UI with a focus on the 'simple' use case
- Auto sequencing of objects (operations, gateways) when adding new objects
- Reviewed columns setup and header with more intuitive names (e.g. What ? Who ? How ?)
- The former "ad-hoc" picker to create or reuse objects has been replaced by more standard and leaner "multiple combo box" control with autocomplete

	~			2 Auto Refres
My Org Process				
Processing Stream Oper	ations \rightarrow Sequence Flow \mapsto	Message Flow		
• New ■ Multiple Add ■				T
What ? 1	Who?	How ?	Previous item	Event Natu
Start	My Org Unit			○ Start
Operation-1	My Org Unit ×	~	Start	
Operation-2			Operation-1	
O End	Hy Org Onic		Operation-2	O End
<pre></pre> < < < < < Page 1 of 1	> >> 🔁 Show 50 🗘 ele	ements		Displaying 1 - 4 of 4
Q Q 🚼 🖨 🖂				
My Or	g Process			

2.3.2.3. Graphical Editor Improvements

- Stretchable objects toolbar with multiple sections & columns now enable to have a lot of objects in the toolbar while keeping it manageable
- Simplified toolbar buttons

MEGA

- \circ $\,$ Focus on the most useful types for events, gateways and participants to lighten the UI
- Additional means to quickly change the 'typing' in properties (events) or right click (gateways, participants), so that the more exotic types can be easily selected when needed

+ + 57 #		
→ ×		
	Gateway	
•	Diagrams containing the object	
	Gateway type	> 🔽 (None)
	Documentation	> Exclusive (Instantiate)
Gateway 1	🖺 Сору	Parallel (Instantiate)
Exclusive	🖉 📀 Remove	Exclusive
← ↔ Parallel _ G	tew Explore	Exclusive (Event)
	Manage	
		Complex
	Properties	Parallel



• Diagramming toolbar buttons (horizontal style / vertical style) allowing to reorganize drawing automatically, using the same layout algorithm as in tabular entry



- Silent creation of objects as been activated where applicable (e.g. creation of operations), so as to ease intellibar usage and reduce number of clicks
- Autocomplete combo boxes in creation wizard, where applicable (e.g. Systems Used > Applications, Participants > Org-Units, Data Objects > Contents)

Creation of F	Creation of Participant - Assignment								
Local name:									
Org-Unit:	cust	~							
	Customer								
	Customer Satisfaction Department								
	Customer Service Representative								
	Customer System Department								

- In place edition
 - Of participants assignations to org -unit through the multi-combo box control, for quick reuse of org-units in inventory, directly from the diagram

My Org Unit Start My Org Unit Add an assignment My Org Unit Another Org Unit Operation-1

 Of sequence flows predicates, for easy 'in diagram' definition of the processing stream



• Possibility to insert an activity within an existing sequence (see also dedicated UX improvement section)



- "On-load" incremental update of the diagram consistent with repository updates, and associated diagram initialization update
 - \circ $\;$ Note: this can be deactivated via a compatibility option

2.3.3. Methodology simplification

MEGA

- Value Streams & System Processes are deactivated by default and can be activated by a user option
 - Note: System Processes now have their own menu entry (hidden by default according to the option)
- RACI feature is deactivated by default
- Enhanced cross product compatibility with HOPEX Information Architecture through a new 'Data Stores' implementation.
 - A compatibility option is defined for the legacy Data Store implementation.
 - This new Data Store implementation has been integrated to BPMN import / export

2.3.4. Business Capabilities Maps

• Business Capability Maps, Business Skills Maps and Functionality Maps are made available in HOPEX Business Process Analysis



• Business Capability Maps look-and-feel has been updated:



2.3.5. New Value Stream Diagram

• New simplified diagram Value Streams (BIZBOK style) with easy data entry and automated rendering

) M E G A



• Tabular entry ONLY and automated diagram generation

T and another and T	h-2 - Valoe ,		🗓 🖉 🐵 🕏 🛃 Auto Refre
Value Stream-1			
New Multiple Add			T
	what? T	Previous item	Required Capabilities
Value Stage1			Collaboration, Allow custo
value Stage2		Value Stage1	Collaboration
Value Stage3		Value Stage2	
Value Stage4		Value Stage3	Content Management, Com
	Insurfage1 Insurfage2 Insurfage2 Material constraints to material constraints to material constraints @Critikowanic @Critikowanic	na fopa) // veva fospa @crumentation Bearting @compose Atomption @compose Atomption @compose Atomption	

- Primarily targets Business Architects (in IT Business Management), but is also made available in HOPEX BPA since this is a popular entry point
- The more comprehensive BPMN Value Stream diagram remains available for more expert / detailed usage

2.3.6. Customer Journey Tabular Entry Improvement

• The Customer Journey tabular entry UI is updated to meet new standard with modern / standard controls (e.g. multiple combo box)

	😑 💿 🎜 🛛 Auto Refresh	0 0 🗱 🖨 🖂		
Customer Journey-1				
22 Phases Steps				
🕙 New 🕒 Multiple Add	0			
Local name 1	TD - Expected Results	😓 Customer Journey-1	F	🔍 test
Step-2	× test × test 2 ×		Expectations	
Step-3	Ŭ			
				Step-2

2.3.7. APQC Framework

The APQC <u>https://www.apqc.org/</u> Framework has been updated and is now available on the <u>HOPEX Store</u>

It provides the 19 APQC process frameworks (cross industry and industry specific frameworks)

- Level 1 and 2 APQC processes are available both as HOPEX Business Processes or Value Streams
- Indicators (metrics) are now also provided



Figure 1 - APQC processes hierarchy in HOPEX BPA desktop

2.3.8. Reporting

• Minor improvements of existing reports (look and feel, consistency with methodology updates)

2.3.9. Import / export

- Various BPMN Import / Export improvements
- New excel import template, to bulk load inventory and description of orgprocesses
 - Similar-to the 'tabular entry' setup:

1	Organizational Process	Process Name	What	Туре	Event Nature	Comment	Who	Previous Item	Previous Item Typ	Sequence Label	Sequence Type
3		My Org Process	Start	Event	Start						
4		My Org Process	Operation A	Operation		blah bla blah	Org Unit 1	Start	Event		
5		My Org Process	Operation B	Operation		bli bli bli	Org Unit 1	Operation A	Operation		
6		My Org Process	OK ?	Gateway			Org Unit 1	Operation B	Operation		default
7		My Org Process	Operation C	Operation			Org Unit 1	OK ?	Gateway	OK	
8		My Org Process	Operation D	Operation			Org Unit 2	OK ?	Gateway	NOK	
9		My Org Process	OR	Gateway			Org Unit 1	Operation C	Operation		conditioned
10		My Org Process	OR	Gateway			Org Unit 1	Operation D	Operation		
11		My Org Process	End	Event	End			OR	Gateway		
12		My Org Process 2	Start	Event	Start						
13		My Org Process 2	Operation 1	Operation			Org-unit 3	Start	Event		
14		My Org Process 2	Operation 2	Operation			Org-unit 3	Operation 1	Operation	next	default
15		My Org Process 2	Operation 3	Operation			Org-unit 3	Operation 2	Operation	next	
16		My Org Process 2	End	Event	End			Operation 3	Operation	next	

 Data can be bulk loaded and then diagrams completed using tabular entry



2.3.10. Other Various Improvements

- Process Fulfillments links between Value Streams and Organizational Processes are now included in HOPEX Business Process Analysis and not only HOPEX Business Architecture / IT Business Management
 - They supersede the legacy "contextualization" concept, now available through a compatibility option



- Various usability improvements
- Removal of the following legacy reports :
 - $_{\circ}$ Org-unit Job Description
 - Business Process Catalog
 - _o Business Process Exchange Balance
 - Business Process Functional Analysis
 - Organizational Process Exchange Balance
 - Impacts of IT Services on Business Processes
 - 。 Business Process Automation
 - Geographical Process Support Map

- 。 Process Support Map
- 。 Site Analysis
- Org-Unit Risk Matrix
- 。 Site Risk Matrix
- Activity exchange balance
- Business Function Exchange Compliance
- Functional Process Exchange Balance
- $_{\circ}$ System Process Exchange Balance

2.4.. HOPEX Integrated Risk Management

2.4.1. Key Risk Indicators

Key Risk Indicators (KRI) are metrics used by organizations to provide an early warning of increasing risk exposures in various areas of the enterprise.

KRIs are managed through a dedicated meta-model, designed around the meta-class called "Key Indicator". The functionalities developed around the KRIs are very flexible and can apply to different use cases, therefore the terminology "Key Indicators" is usually preferred to "Key Risk Indicators". Other types of indicators that can be addressed using the functionalities described in this chapter are the Key Performance Indicators (KPIs) and the Key Control Indicators (KCIs).

2.4.1.1.Product License and Profiles Accessibility

To use KRIs functionalities one of the following product licenses is required:

- ERM
- Internal Control

Every profile associated to either of the above-mentioned product licenses, will automatically have access to all KRIs in the environment.

In this first version every user has access to the full list of KRIs, i.e. no KRIs filtering mechanism has been implemented by default.

2.4.1.2.New Key Indicator Wizard

When creating a new Key Indicator, a wizard is displayed, as shown below.

New Key Indicator	∠* × New	ey Indicator			2 ×
Name*	Name*				
Key Indicator-1	Key In	icator-1			
Lower Threshold* Higher Threshold* 0 \$	Lower	Threshold* Higher	r Threshold*		
Do not aggregate Key Indicator values Aggregation Period* Aggregation Operation*	Do Aggres	not aggregate Key Ind ation Period*	icator values	Aggregation Operation*	
Monthly V Sum	Categ	y pry	~	Sum	~
Standard Reverse Accepted Values Rejected Val	es Key In Rever	Indard Revers	e Bigic*	J Values Rejected Values	Ŷ
	Cancel				OK Cancel
Standard Wizard, with Aggregatic only one Interpretation Logic ava	n and A ilable	dditional f indicato Interpre	field app or has m etation l	pearing whe nore than or logic availab	n the ne ole

The user is asked to provide the following information for the Key Indicator to be created:

• Indicator name

MEGA

- Lower Threshold
- Higher Threshold
- **Do not aggregate Key Indicator values** A checkbox selected by default, defines whether the indicator's values should be interpreted as is, or if they have to be aggregated over a given timespan. If the user unselects it, two additional fields are displayed:
 - Aggregation Period Defines the timespan of indicator's values that are to be aggregated. Possible values: Yearly, Half Yearly, Quarterly, Monthly, Half Monthly, Weekly. "Monthly" selected by default.
 - Aggregation Operation Defines the mathematical operation to be used when aggregating multiple indicator's values. Possible values: Sum, Average. "Sum" selected by default.
- Category Defines the way the indicator's values are interpreted and holds the logic used to automatically compute the indicator's status. Possible values: Standard, Reverse, Accepted Values, Rejected Values. "Standard" selected by default.
- **Key Indicator Interpretation Logic** Every indicator category is associated by default to one single Key Indicator Interpretation Logic. This is an intermediate object which contains:
 - $\circ~$ A macro to automatically compute the indicator's status and
 - $\circ~$ A set of pre-defined possible statuses the indicator can be in.

The user can freely extend the default behavior and create a new interpretation logic, which means a new indicator's status computation macro. In this case, this field allows to select the interpretation logic to be used. If only one logic is available this field is hidden, and the standard one is used by default.

Every KRI has an associated "State" that can be either "Active" or "Inactive". The newly created KRI has an "Active" State by default.

Warning! The KRI category, aggregation period, aggregation operation and KRI interpretation logic cannot be changed once the KRI is created.

2.4.1.3.Key Indicator's Property Page

The property page of a Key Risk Indicator is made of four tabs:

- 1. **Characteristics** It contains overview information about the indicator and it allows to edit some of its parameters
- 2. **Notifications** It allows to setup and activate indicator's automatic notifications
- 3. **Values** It contains the history of all the indicator's past measurements, and it also allows to add new ones
- 4. **Indicator Graph** It displays the indicator measurements evolution over time via a line chart
- 5. **Remediation** It allows to create/link action plans to the indicator

Details on the meta-attributes and meta-associations available in each tab are provided in the image below.

Tab	Section	Field	Mandatory	Туре	Value Type	Default Val	Values	Rules
Characteristics								
	Overview							
		Name	YES	Text	Manual			Initialized with "Key Risk Indicator - #" where # is an increasing number. Can be edited.
		Indicator Status	NO	Drop down	Auto		Unknown (grey), Operational (green), Warning (yellow), Unsatisfactory (orange), Critical (bright red), Failed (dark red)	Status automatically computed based on a macro
		Measurement Freshness	NO	Text	Auto			Time past since the last measured value (defined in terms of Days/Weeks or Months based on the KRI steering calendar)
		Time to Failure	NO	Text	Auto			Number of days (integer) before the forecasted KRI status is "Failed". If no available measurement, then it's "Unknown"
		Indicator State	YES	Drop down	Manual	Active	Active, Inactive	,
		Current Value	NO	Value	Auto			If Aggregation Period is not defined, it is the last KRI valule. Otherwise it considers the last completed aggregation period and its aggregated value.
		Measurement Unit	NO	Text	Manual			It is used as a label for the indicator graph y axis
		Details	NO	Text area	Manual			
	Advanced							
		Category	YES	Drod down	Manual	Standard	Standard, Reverse, Accepted Values, Rejected Values	Cannot be edited after KRI creation
		Indicator Interpreation logic	YES	Drop down		Default intepr. Logic associated with category		Cannot be edited after KRI creation
		Aggregation Period	YES	Drop down	Manual	Monthly	Yearly, Half Yearly, Quarterly, Monthly, Half Monthly, Weekly	Cannot be edited after KRI creation
		Aggregation Operation	YES	Drop down	Manual	Sum	Sum, Average	Cannot be edited after KRI creation
		Lower Threshold	YES	Number	Manual			
		Higher Threshold	YES	Number	Manual			
		Nb of values used to compute Time to Failure	YES	Number	Manual	12		Number of past KRI aggregated values required to compute the Time to Failure
	Scope							
		Entities	NO	Org (n)	Manual			
		Business Processes	NO	Business Process (n)	Manual			
		Org Processes	NO	Org Processes (n)	Manual			
		Applications	NO	Applications (n)	Manual			
	Attachments							
		Documents	NO	Business Documents (n)	Manual			
		External Reference	NO	External Reference (n)	Manual			
Notifications								
		Indicator New Value Notification	NO	Boolean	Manual	FALSE		
		Indicator Responsible Person	NO	Person System	Manual	Indicator Creator		Initialized with the KRI creator. Can be edited
		Indicator Status Notification	NO	Boolean	Manual	FALSE		
		Indicator Status Notification Values	NO	Multi combo	Manual	Failed	Unknown, Operational, Warning, Unsatisfactory, Critical, Failed	KRI statuses for which a notification is sent
		Last Measurement Notification	NO	Boolean	Manual	FALSE		
		Last Measurement Notification Value	NO	Number	Manual	90		
		Notification Persons	NO	Person System	Manual			
Values	Measurement Frequency							
		Measurement Frequency	NO	Steering Calendar	Manual	Monthly		Steering calendar used to trigger the notifications to be sent to the KRI owner in order to provide a new value for the KRI. Cannot be emotied.
	Values							
		Date	YES	Date	Manual	Today's date		Initialized with the date when the value is created. Can be edited.
		Value	YES	Number	Manual			Can never be edited
		Details	NO	Text area	Manual			

Figure 2 - KRI property page structure

2.4.1.4.Characteristics Tab

a) Key Indicator's Dashboard

Every Key Indicator has a dashboard which provides the following information:

🔵 MEGA

- Indicator Status Status automatically computed
- Measurement Freshness How old the last indicator measurement is
- **Time to Failure** Forecasted figure consisting in the number of days before the KRI fails



i. Indicator's Status

The Indicator's status is automatically computed considering the last KRI values, eventually applying the selected KRI "aggregation period" and "aggregation operation".

The status computation is triggered in the following circumstances:

- New KRI value is added
- Existing KRI value is deleted
- KRI thresholds are edited
- The KRI state is changed

The table below provides a few practical examples to better understand how the indicator status computation works when a new measurement is added to the KRI.

ID	Current KRI Status	Future KRI Status
01	KRI goes in status failed if the sum of its values over a month is higher than 30.	<u>New Measure</u> : 10 the 20-03-2020
	Otherwise it is operational.	New Current Value: 27+10=37 New Status: Failed
	Existing Measures Current Month: 12, 15 Current value: 12+15=27	
	Current Status: Operational	
02	KRI goes in status failed if the average of its active tickets over the month is higher	<u>New Measure</u> : 15 the 20-03-2020
	than 10. Otherwise it is operational.	New Current Value: (10+8+15)/3=11
	Existing Measures Current Month: 10, 8 Current value: (10+8)/2=9	<u>New Status</u> : Failed
	Current Status: Operational	

The tables below provide the adopted logic based on the KRI category (in the formulas Low and High are respectively the Lower and Higher Thresholds, while M is High+Low/2).



KRI Category: Accepted Values

Status	Predefined Formula
Unknown	No available values OR No available thresholds
Failed	KRI > High OR KRI < Low
Operational	KRI >= M - 0.5*(High-M) AND KRI <= M + 0.5*(High-M)
Warning	KRI > M + 0.5*(High-M) AND KRI <= M + 0.75*(High-M)
	OR
	KRI < M - 0.5*(High-M) AND KRI >= M - 0.75*(High-M)
Unsatisfactory	KRI > M + 0.75*(High-M) AND KRI < M + 0.9*(High-M)
	OR
	KRI < M - 0.75*(High-M) AND KRI > M - 0.9*(High-M)
Critical	KRI > M + 0.9*(High-M) AND KRI <= High
	OR
	KRI < M - 0.9*(High-M) AND KRI >= Low

The image below shows an example of KRI of category "Accepted Values". In all the examples which follow, the High Threshold is set to 10, the Lower to 2, thus M is equal to 6.





KRI Category: Rejected Values

Status	Formula		
Unknown	No available values OR No available thresholds		
Failed	KRI <= High AND KRI >= Low		
Operational	KRI < Low - 0.5*(High-M) OR KRI >= High + 0.5*(High-M)		
Warning	KRI < High + 0.5^{*} (High-M) AND KRI >= High +		
	0.25*(High-M)		
	OR		
	KRI >= Low - 0.5*(High-M) AND KRI < Low - 0.25*(High-M)		
Unsatisfactory	KRI < High + 0.25*(High-M) AND KRI >= High +		
	0.1*(High-M)		
	OR		
	KRI >= Low - 0.25*(High-M) AND KRI < Low - 0.1*(High-M)		
Critical	KRI > High AND KRI < High + 0.1*(High-M)		
	OR		
	KRI < Low AND KRI >= Low - 0.1*(High-M)		

The image below shows a practical example of KRI with category "Rejected Values".





KRI Category: Standard

Status	Formula			
Unknown	No available values OR No available thresholds			
Failed	KRI < Low			
Operational	KRI >= Low + 1.5*(High-M)			
Warning	KRI < Low + 1.5*(High-M) AND KRI >= Low + 0.75*(High-			
	M)			
Unsatisfactory	KRI < Low + 0.75*(High-M) AND KRI >= Low +			
	0.25*(High-M)			
Critical	KRI < Low + 0.25*(High-M) AND KRI >= Low			

The image below shows a practical example of KRI with category "Standard".

10	OPERATIONAL	High
8	OPERATIONAL	
6	WARNING	М
	WARNING	
4	UNSATISFACTORY	
2	CRITICAL	Low
	FAILED	



KRI category: Reverse

Status	Formula
Unknown	No available values OR No available thresholds
Failed	KRI > High
Operational	KRI <= High – 1.5*(High-M)
Warning	KRI > High – 1.5*(High-M) AND KRI <= High – 0.75*(High-
	M)
Unsatisfactory	KRI > High – 0.75*(High-M) AND KRI <= High –
	0.25*(High-M)
Critical	KRI > High – 0.25*(High-M) AND KRI <= High

The image below shows a practical example of KRI with category "Reverse".

10	FAILED	High
	CRITICAL	
8	UNSATISFACTORY	
6	WARNING	М
4	WARNING	
2	OPERATIONAL	Low
	OPERATIONAL	

ii. Measurement Freshness

It considers the time passed since the last KRI value was recorded, rounded to the closest integer. The attribute value is always computed in "days", however the value displayed in the dashboard follows a logic based on the KRI measurements frequency.

The Measurement Frequency parameter is defined via a Steering Calendar. There are three possible pre-defined steering calendars (monthly, weekly and daily), each one of which has an associated Steering Date. The Steering Date has a parameter "Recurrence Type" whose possible values are: daily, weekly and monthly.

Reminder: Internal Con	ntrol - Execution Campaign Scheduler Job		a	*		
Steering Date: 📀 🔗 🌬 📮 🙁 💱 🔗 🔣 📟			General Steering Date S	Scheduling Texts		
Local name	Notification	Email I	Start Relative Date Start date (absolute): Start hour: Date Recurrence Recurrence Type: Recurrence End Type: Recurrence End Type: Recurrence End Type: Recurrence Type Recu	6/ 3/2013 V aekly V ne mday V ad Date OK Cancel	 Арріу 	

Based on the value of "Recurrence type" the Measurement Freshness' value will be presented in the KRI dashboard as follows:

- Count the days for "Daily" recurrence type (i.e. Daily Steering Calendar)
- Count the weeks for "Weekly" recurrence type (i.e. Weekly Steering Calendar)
 The value is obtained dividing the number of days by 7
- Count the months for "Monthly" recurrence type (i.e. Monthly Steering Calendar) – The value is obtained dividing the number of days by 30

The following rules are applied to define the Measurement Freshness value and color coding:

- No existing measurement Grey text "No Values"
- Last value 0 to 3 units old Green text. Possible values are, "Today", "This Week" or "This Month", "1 Day/Week/Month", 2 Days/Weeks/Months", "3 Days/Weeks/Months".
- Last value 4 to 6 units old Orange text.
- Last value 7 or more units old Red text.

iii. Time to Failure

This value is an estimate computed by a linear interpolation algorithm. The algorithm takes into consideration previous KRI, eventually aggregated, values and it computes the time it would require for the KRI to move into the "Failed" status. The objective of such value is to provide an early warning in case of dangerous behavior of the KRI.

If the KRI is already in Failed status, this attribute value is "0 days".

The algorithm to compute the Time to Failure depends on the KRI category.

Possible values of Time to Failure are defined in the table below.

Dashboard	Numeric	Details
value	value	
Unknown	Empty	If not enough data available
Unforeseen	9999	The algorithm computation shows that the KRI value is evolving in a way that makes it impossible to reach the Failed status
0 days	0	When the KRI status is Failed
# days	Number	When the algorithm estimates that the KRI will go into the Failed status after # days

The following rules are applied to define the Time to Failure value and color coding:

- Unknown Grey
- Unforeseen Green
- # days Orange
- **0 days** Red

) M E G A

b) Overview Section

The overview section contains the following attributes:

- **KRI name** Name provided at KRI creation time
- **State** It defines whether the KRI is active or inactive.
- Value If no Aggregation Period is defined, is the last KRI value, otherwise it is the value obtained by applying the "Aggregation Period" and "Aggregation Operation" to the KRI values of the <u>last completed</u> aggregation period (e.g. for a KRI with monthly aggregation period, being in May, the indicator value is computed by aggregating all existing KRI values dated April)
- **Measurement Unit** It is a free text field. It represents what is being monitored by the indicator. The value is also used as a label for the y-axis of the indicator graph.
- Details An open text to further describe the KRI

• Indicator State

The indicator's state is used to distinguish between indicators which are Active, thus evolving over time (i.e. for which users are still recording new values) and those which are Inactive, thus have reached their final stage and must only be kept in the archive, while they will no longer evolve.

The indicator's state is initialized by default to "Active" at KRI creation phase. If the user changes its value to "Inactive" the following happens:

- A new computation of KRI value and status are triggered (according to notifications setting a notification can be sent as a consequence of a change in the KRI status)
- If the KRI has any pending jobs in the scheduler to send notifications these are deleted, and the notifications are also disabled
- It will be no longer possible to edit anything in the advanced, notifications and values sections

c) Advanced Section

This section allows to:

• Redefine KRI thresholds and the number of KRI values, eventually aggregated, used for the Time to Failure computation

It contains the following fields, all in read-only mode:

- Indicator Category It is the category selected at indicator creation time
- **KRI Interpretation Logic** It is the logic used to compute the KRI status, associated to the KRI category, selected at KRI creation time
- **More Info** A button which allows to access to additional details in read-only mode about the indicator category and associated interpretation logic and available indicator's statues
- Higher Threshold It is the higher threshold defined at indicator creation time
- Lower Threshold It is the lower threshold defined at indicator creation time

MEGA

- **Aggregation Period** It is the indicator Aggregation Period selected at indicator creation time. If not defined, it is hidden.
- **Aggregation Operation** It is the indicator Aggregation Operation selected at indicator creation time. If not defined, it is hidden.
- Number of values used for Time to Failure computation Read only, set by default to 12. It is the number of KRI, eventually aggregated values, considered by the interpolation algorithm to compute the Time to Failure
- **Edit Parameters** A button which allows to edit Higher and Lower Thresholds and the number of values used for Time to Failure computation.

• Aggregation Period Interpretation

Based on its value, the "Aggregation Period" parameter requires to aggregate multiple KRI values considering their date. In particular, the KRI values to be aggregated, based on the Aggregation Period are:

- Yearly From Jan 1st to Dec 31st
- Half Yearly From Jan 1st to June 30th, from July 1st to December 31st
- **Quarterly** From Jan 1st to March 31st, from April 1st to June 30th, from July 1st to September 30th, from October 1st to December 31st
- Monthly All days of each month
- **Half-Monthly** From 1st to 15th included for all months but February for which we stop at the 14th, from 16th (15th for February) to the end of the month
- Weekly From Monday to Sunday included

d) Scope Section

Standard Scope section, allowing to link Applications, Entities (Org-Units) and Processes (Business and Organizational).

2.4.1.5.Values Tab

a) Measurements Frequency Section

This section allows to specify a steering calendar which defines the frequency used to:

- Define the logic used by the KRI notifications, whenever activated
- Define the logic used to color code the Measurement Freshness parameter in the KRI dashboard

By default, this section is initialized with the Monthly steering calendar. The user can edit this field and select a different steering calendar (monthly, weekly and daily are available by default).

Upon modification of this field, if the KRI has pending jobs, these will be deleted and replaced with the new one.

b) Values Section

This section allows to:

 Add new measurements to the KRI and delete existing ones (edit is not allowed),

Access to all past measurements

When clicking on the "New" button to add a new KRI value, a wizard with the following fields is displayed:

- Two mandatory fields
 - o Indicator Value
 - **Measurement Date** Initialized with today's date
- One optional field
 - Details To provide any useful information regarding the indicator measurement

2.4.1.6.Notifications Tab

This section allows to define what notifications should be enabled and on which conditions.

All notifications are disabled by default.

The following notifications can be enabled:

- 1. Periodic notification (specified by the attribute measurements frequency) to the user responsible for providing the indicator measurements (initialized with Key Indicator creator)
- 2. When an indicator moves in a given status
- 3. When Measurement Freshness is older than a given number of days

For notifications 2 and 3, a table allows to list the users the notifications should be sent to.

2.4.1.7.Indicator Graph Tab

This tab contains a line chart report displaying the indicator behavior over time.



The report takes as y-axis label the value of the field "Measurement Unit", if provided.

Lower and higher thresholds are colored based on the indicator category:

- **Standard** Lower threshold red, higher threshold green
- **Reverse** Lower threshold green, higher threshold red
- Accepted values Lower and higher thresholds green
- **Rejected values** Lower and higher thresholds red

2.4.1.8.Remediation Tab

This tab allows to create/link action plans to the key indicator.

2.4.1.9.Home Page Tiles

A new tile is available on the home page, called "All Key Indicators". It takes the user to the list of all existing indicators.

2.4.1.10. Menu Entries

Three additional menu entries are available on the IRM desktop:

- Libraries -> Indicators It contains two tiles, one to access to a flat list of all existing KRIs, and a second to access to a three structure of org-units and linked KRIs
- 2. **Analysis -> Indicators** It contains 3 pre-defined indicators report templates
- 3. **Administration -> Indicators** Only available to admin users, it contains all elements required to customize the default behavior of Key Risk Indicators.

2.4.1.11. Reporting

The indicators have three predefined reports, accessible from the Analysis->Indicators section. These are:

- 1. **Indicator Comparator** To be used to compare two indicators on the same line chart
- 2. Multi Gauges To be used to display several comparators on several gauges
- 3. Multiline Charts Like multi gauges but using line charts



2.4.1.12. Indicators Administration

A new section has been added to the administration menu, to let users customize the default rules and behavior of Key Indicators. From Administration->Indicators, users can:

- Define a new macro to compute the Time to Failure of a given KRI category
- Define new Aggregation Operations
- Define new Aggregation Periods
- Define new KRI statuses
- Define new KRI status computation rules

2.4.2. UCF integration

In order to respond to the IRM market demand and provide content as a starting point and reference to IRM users, a new importing wizard is made available to IRM customers with a valid UCF subscription.

A UCF subscription gives customers access to UCF's Common Controls Hub which contains not only Regulatory Frameworks, complete with explicited legal obligations (or Regulation Articles), but also the Control Directives (or best practices to implement to achieve compliance as redacted by UCF). Users need to select the Regulatory Frameworks from UCF's workspace prior to import into Hopex.



Hopex's UCF Importer is then set in motion to import the previously selected Regulatory Frameworks and its subsequent Regulation Articles and corresponding Control Directives.

UCF's Regulatory Frameworks, Regulation Articles and Control Directives are managed through a dedicated meta-model, designed around the meta-class called "Control Framework". Hopex's already existing Controls are then used to indicate their implementation of Control Directives.

NOTE: The already existing concepts of Regulation Framework and Requirements inherited from the deprecated Regulatory Compliance solution and currently in use in IRM are not to be confused with the new concepts imported from UCF.

2.4.2.1.Product License and Profiles Accessibility

To use the UCF importer and subsequent Concepts accommodating the imported content, the following product licenses is required:

- IRM
- Internal Control (at least)
- + UCF (as an option)

Every profile associated to both IRM/IC + UCF licences, will automatically have access to the UCF Importer and relevant concepts in the environment.

In this first version, once an import is completed, every user has access to the full list of imported Regulatory Frameworks, Regulation Articles and Control Directives.

2.4.2.2.New Metaclasses/Concepts

- Control Framework: englobes all of the regulatory concepts along with their association to Control Directives as they are defined by UCF.
- Regulatory Framework: corresponds to UCF's Authority Document, can also be described as regulations, principles, standards, guidelines, best practices, policies, and procedures.
- Regulation Section: corresponds to UCF's Citations, a passage or expression in an Authority Document that is quoted or cited BUT holds no legal obligation and subsequently has no Mandated Controls. These Citations are imported into Hopex as mere chapters grouping legally binding Regulation Articles/Citations.
- Regulation Article: corresponds to UCF's Citations, a passage or expression in an Authority Document that is quoted or cited AND to be enforced by at least one Mandated Control.
- Control Directive: corresponds to UCF's Common Controls, The specific steps or actions within a compliance mandate that must be met to fulfill a compliance
requirement. There 3 different enforcement levels to a Common Control/ Directive:

- Mandated: the Control Directive enforces at least one Citation/Regulation Article
- Implied: the Control Directive does not enforce a Citation/Regulation but has a parent relationship to a Mandated Control that supports it
- Implementation: the Control Directive does not enforce a Citation/Regulation directly but has a child relationship to a Mandated Control it supports.

INSERT CONCEPTUAL MODEL HERE

2.4.2.3.UCF Importer

a) User Options

All UCF specific Concepts and associations described in the section above as well as the following:

- their association to Implementing Controls (already existing in Hopex IRM)
- their association to elements subjected to Compliance (Business Process, Organizational Process, Entities)
- The new Menus & subsequent lists and treelists (Environment -> Control Framework, Libraries -> Control Framework)
- UCF Import wizard

Should be hidden with the relevant user option. The user option should only be available to users holding a UCF licence key.

INSERT SCREENSHOT HERE

b) UCF Authentication

OAuth authentication needs to be setup for the user from the User Options. Identification will be based on the Get.Account query provided by UCF. 2 fields need to be populated by the user to set up communication with UCF's Common Controls Hub:

- /cch-account/{account-id}/details where account-id is the user's account number with UCF
- API key: as generated by the users from their UCF account

INSERT SCREENSHOT HERE

c) UCF Importer

The Importer wizard should be available to IRM Manager/Control Director who hold a UCF licence AND have activated the aforementioned UCF User Options. Navigation path is Home => Environment => Regulations => Control Framework.

Users would have to search for and select the Shared Lists they have previously created in their UCF Workspace and enter the corresponding API key prior to import.

Hopex Importer will also remind the users if an Authroity Document/Regulatory Framework was previously imported and compare the last import date to the UCF's last update date. This is to enable users to make an informed choice concerning the Regulatory Frameworks worth importing.

Upon completion fo the import, Users are encouraged to use the Control Framework tree to indicate which Regulation Articles the organization has to comply with.



		KF Import - Introduction		1	
Control Framework Sector Regulatory Framework Section Article Enforcing Directive	F E C C	You are about to import Regulatory Frameworks, complete with Regulation Sections, Articles and subsequent Mandated Control Directives from the UCP's Common Controls Hub. 2 pre-requisites to this import are: • to have creaded at least one Shared List in your Common Controls Hub's workspace, and • to hold its API key. After setting up the Shared List, Hopex will present you with a list of Regulatory Frameworks cor therein Based on UCP' Lost modified date' and the last import date into Hopes, you can select will Regulatory Frameworks to include in this import. Once import starts, a progress status bor will be displayed. You are encouraged to review the newly imported Regulatory Frameworks and indicate wich Regu- Articles you deem relevant to your Orgnization after import. Cancel	Non Non Next	ictives	Number of Supporting Directives
Supporting Directive Article	Ľ			1	
Enforcing Directive	1	0 2			2
Supporting Directive	Ľ				٤
Supporting Directive					
Article		3 6			
I Section		5			

	UCF Import - Shared List			
Control Framework	Please select the Shared Lis you wish to import. Q. search	t from your Common Controls Hub containing	the Regulatory Frameworks	
Import UCF Content	F Please enter the Shared List	's API Key here.		
Select sub-elements				
S Expand the selected items	_F	Bo	k Concel Next Cliv	es Number of Supporting Directives
Regulatory Framework				
Section	d	·		
Article		0	4	
Enforcing Directive				1
Supporting Directive				
Article		0	2	
Enforcing Directive				2
Supporting Directive				
Supporting Directive				
Article	0	3	6	
Section	0	5	Ť	
L				

		Selecting Shared List		
Control Framework	UCF Import - She Please selec you wish to it	Nome Privacy List CyberSecurity List Accounting List	Framework	
Import UCF Content Select sub-elements Select sub-elements Sexpand the selected items	F Please enter		ОК	Number of Supporting Directions
Regulatory Framework Section	<u> </u>		Bock Cancel Ne	ictives includer of Supporting Directives
Article		0	4	
Enforcing Directive				1
Supporting Directive				
Article		0	2	
Enforcing Directive				2
Supporting Directive				
Supporting Directive				
H Article	0	3	6	
⊞ Section		5		

	UCF Import - Shared	List		
Control Framework Import UCF Contant Select sub-elements	Pieces select the you wish to impor Privacy List p Pieces enter the 3	Shared List from your Common C t. Shared List's API Key here.	Controls Hub containing the Regulatory Frameworks	
Expand the selected items	,F		Bock Concel Next	tctives Number of Supporting Directives
Regulatory Framework				-
Section	d	ů.		
Article		0	4	
Enforcing Directive				1
Supporting Directive				
Article		0	2	
Enforcing Directive				2
Supporting Directive				
Supporting Directive				
Article		2	e	
Section		3	°	
L	<u> </u>	5		

	L.	UCE Import - Regulatory Frameworks						Ъ	
		The Regulatory Frameworks contained in the previously selected Shared List are displayed below. Please select the Regulatory Framework(s) you wish to import into Hopex.						1	
		Common Name		Already Present i	n Hopex?	Lost Imported Date	Lost UCF Mode	fication Date	
Control Framework		GDPR		۲		23/05/2018	16/05/2020		
Import UCF Content	F	IM Guidance Update: Cybersecurity (Guidance	۲		17/03/2017	20/07/2020		
		ISO 27005 Information technology	Security techniques	N			20/04/2020		
Select sub-elements	4	AICPA/CICA Privacy Framework		Y		20/03/2019	30/07/2011		
Expand the selected items	F								upporting Directives
B Regulatory Framework						Book	ancel Imp	ort Selection	
Section	4								
Article	d.				-				
Enforcing Directive								1	
Supporting Directive									
Article		0			2				
Enforcing Directive								2	
Supporting Directive	_								
Supporting Directive									
Article					e .		-		
Section	-	3			6				
		5							

	t,	ICF Import - In progress]			
		Importing Regulation Sections, Articles and Control Directiv					
		Common Name	Already Present in Hopex?	Lost Imported Date	Lost UCF Modify	cation Date	
	4	ODPR	Y	23/05/2018	16/05/2020		L
Control Framework	-	IM Guidance Update: Cybersecurity Guidance	Y	17/03/2017	20/07/2020		
Import UCF Content	F	ISO 27005 Information technology Security techniques	N		20/04/2020		
Select sub-elements	e						
Expand the selected items	F						upporting Directives
Regulatory Framework	н.						
Bection			Concel				
Article	d.,		_				
Enforcing Directive	րբ						
Supporting Directive							
Article		0	2				
Enforcing Directive						2	
Supporting Directive							
Supporting Directive					_		
Article							
Section		3	6				
		5					

	L.	JCF Import - Completed					
		Import of the following Regulatory Frameworks is now comp	lete.				
		Common Name	Already Present in Hope	ex? Lost Imported Date	Lost UCF Medification Da	te i	
		ODPR	Y	07/05/2020	16/05/2020		
Control Framework	4	IM Guidance Update: Cybersecurity Guidance	Y	07/05/2020	20/07/2020		
Import UCF Content	F	ISO 27005 Information technology Security techniques	Y	07/05/2020	20/04/2020		
Select sub-elements	6	To review all corresponding Regulation Sections, Articles a Regulatory Frameworks. You can then indicate which Regu	nd Control Directives, ple lation Articles are relevan	ease select OK to go back at to your Organization.	k to the hierarchy of		mantine Distations
Regulatory Framework	1		OK				apporting Directives
ESection	Ľ						
Article		0	4				
Enforcing Directive					1		
Supporting Directive							
Article		0	2				
Enforcing Directive					2		
Supporting Directive					_		
Supporting Directive							
Article							
Section	-	3	6				
		5					

2.4.2.4.New Menus & Lists

a) Environment/Regulations/Control Framework

Displays all content imported from the UCF's Common Controls Hub in a tre strucutred around the Organization's Control Framework, starting with Regulatory Frameworks, their Regulation Articles and the Control Directives enforcing them.

Control Framework									
Filter by Regulatory Framework									
Select sub-elements	Select sub-elements								
Expand the selected items	Relevant to organization?	Number of Regulatory Children	Number of Enforcing Directives	Number of Supporting Directives					
Regulatory Framework	1	2							
ESection		3							
Article		0	4						
Enforcing Directive				1					
Supporting Directive									
Article		0	2						
Enforcing Directive				2					
Supporting Directive									
Supporting Directive									
Article	0	3	6						
Section		5	-						
		·							

b) Libraries/Control Framework

iv. By Control Directives

Displays all Control Directives contirbuting to the enforcement of any Regulation Article your Organization has to comply to. Control Directives are presented in a tree based around their support structure.

Each implementing Control's Execution Rate and Pass Levels are displayed to inform users of their perceived efficiency.

By Control Directives							
Filter by Root Control Directive •							
Select sub-elements							
C Expand the selected items	Enforcement Level	Number of Supporting Directives	Number of Implementing Control	Execution Rate	Control Pass Level		
Boot Control Directive	Implied	2					
Supporting Control Directive	Implied	2					
Supporting Control	Implied	1					
Supporting Control	Mondated		1				
Implementing Control				67%	75%		
Supporting Control	Implied	1					
Supporting Control	Mondated		2				
Implementing Control				98%	100%		
Implementing Control				91%	50%		
Supporting Control	Mondated	3	2				
Supporting Control Directive	Implied	4					

v. By Regulatory Frameworks

Displays all Regulation Articles your organization has to comply to in a tree starting from Regulatory Frameworks structured around the Control Directives enforcing them and their implementing Controls.

Each implementing Control's Execution Rate and Pass Levels are displayed to inform users of their perceived efficiency.

By Regulatory Fromework				
Filter by Regulatory Framework				
Select sub-elements				
S Expand the selected items	Guidance	Number of Implementing (Control Execution Rate	Pass Control Level
Regulatory Framework				
Policy Code	Blah Blah blah blhab			
Enforcing Directive		0		
Supporting Directive		2		
Implementing Control			67%	75%
Implementing Control			83%	50%
Policy Code	Simon says you shouldn't do this			
Policy Code	All work and no play makes you a very			

vi. By Regulatory Articles

MEGA

Displays all Regulation Articles your organization ahs to comply to in 2 flat lists:

• One presenting Regulation Articles implemented by Controls, and



• The other where implementing Controls are absent.

🖬 Reorganize 📮 🛅				
Policy Code	Guidance	Regulatory Framework	Effective Date	No of Control Directives
FAF8A3F7-DDD7-4A6F-9FF0-008ACA67AA7A	Configure the \"MSS: (DisableIPSourceRouting) IP source routing protection level	ISO 27001	22/08/2017	3

2.4.2.5. Amended Hopex Concepts

a) Controls

Under a new Regulatory Enforcement section, the following 2 UCF concepts are available:

- Implemented Control Directives: as a direct association to UCF's Control Directives
- Enforced Regulation Articles: as an indirect link to the Regulation Articles enforced by the aforementioned implemented Control Directives.

b) Entities, Business Process and Organizational Process In order to reflect that they are subject to compliance, the Regulation Article concept will be added to the Scope sections of Entities, Business Process and Organizational Process properties pages.

2.4.3. Profiles cleanup

This release officially changes the name of HOPEX GRC into HOPEX IRM where IRM is the acronym for Integrated Risk Management.

According to this new name, the existing profiles "GRC Functional Administrator", "GRC Manager" and "GRC Contributor Lite" where renamed in:

- IRM Functional Administrator
- IRM Manager
- IRM Contributor

A certain number of existing profiles have been defined as Not Assignable* and Inactive** since the delivery of the new IRM desktop.

*makes the profile not available when trying to assign it to an existing user

** even if the profile has been assigned to a user, at connection time, it's not shown as an option to login

These are:

- Application Owner (GDPR) -> Introduced by HOPEX GDPR but no longer used
- Auditor (Not Leader) -> From now on a Lead Auditor is a user with profile "Auditor" which is assigned as leader for an audit mission. No need to have a specific profile
- Auditor/Controller -> Auditor with both Internal Audit and Internal Control license
- Auditor/Controller/Compliance Cor -> Auditor with Internal Audit and Internal Control licenses
- Business User Compliance -> No longer existing
- Business User ERM -> IRM Contributor with ERM license
- Business User IC -> IRM Contributor with IC license
- Compliance Controller -> No longer existing or IRM Contributor with IC license
- Compliance Functional Administrat -> No longer existing
- Compliance IC and Audit Director -> IRM Manager with IC and Internal Audit license
- Compliance Manager -> No longer existing
- Compliance Tester -> No longer existing
- Control Executer -> IRM Manager with IC license

) M E G A

- Control Tester -> IRM Manager with IC license
- IC and Audit Director -> IRM Manager with IC and Internal Audit license
- IC and Audit Functional Administrat -> IRM Functional Admin with IC and Internal Audit license
- IC Audit and Compliance Functiona ->IRM Functional Admin with Audit license
- Incident Approver ->IRM Manager with LDC license
- Incident Declarer -> IRM Contributor with LDC license
- Local Risk Manager -> IRM Manager with ERM license
- Recommendation Correspondent -> IRM Contributor with IA license
- Recommendation Owner -> IRM Contributor with IA license
- Regulatory Manager -> No longer existing
- Requirement Assessor -> No longer existing
- Risk Functional Administrator -> IRM Functional Admin with ERM
- Risk Manager (light) -> IRM Manager with ERM license
- Risk Stakeholder -> IRM Contributor with ERM license
- As a result of this cleanup, the profiles having access to the new IRM desktop are:
 - Audit Director
 - Auditor
 - Incidents and Losses Administrator
 - Internal Control Director
 - Internal Controller
 - IRM Functional Administrator
 - IRM Manager
 - Risk Manager

2.4.4. Data Access Rules Review

Existing data access rules where review in order to consider the new broader profiles that can be used for several products (such as IRM Manger and IRM Functional Administrator). Functionality wise nothing was changed apart for the three existing DARs for plans that were merged into one.

2.4.5. IRM Functional Administrator – CRUD Policies

The IRM Functional Administrator inherits its CRUD policies from the other Functional Administrator profiles. As a result, it has full CRUD rights over all IRM meta-classes.

2.4.6. User Menu

The user menu has been simplified, filtering some of the existing options. The implemented visibility rights are as follows:

First Land many	Concerned Lawrence	IRM Functional	All other	
First Level menu	Second Level menu	Admin	profiles	
Switch Profile		YES	YES	
Save		YES	YES	
Logout		YES	YES	
Import	HOPEX File	YES	NO	
	Excel	YES	YES	
	Visio	NO	NO	
	BPMN2	NO	NO	
Export	HOPEX File	YES	NO	
	Excel	YES	YES	
	Visio	NO	NO	
	BPMN2	NO	NO	
Scheduling Management	Scheduling	YES	NO	
Set Current Library		NO	NO	
Advanced Query		YES	YES	
Language		YES	YES	
HOPEX Style		NO	NO	
Settings	Modify Password	YES	YES	
	Options	YES	YES	
	Alerts Management	YES	YES	
	Reinitialize personal parameters	YES	YES	
	License information	YES	YES	
	HOPEX System Web Report	YES	YES	
	About HOPEX	YES	YES	
Community		YES	YES	

2.4.7. HOPEX IRM – Contributor

Following the modernization of the IRM products suite, there was the need to extend the perimeter of the existing GRC Contributor Lite profile, in order to account for the broader Integrated Risk Management use case. The result is a new comprehensive, powerful, yet light, profile, called IRM Contributor, providing all functionalities needed to contribute to the organization integrated risks management initiative.

Using the IRM Contributor profile, users can focus on their daily tasks without being overwhelmed by the full spectrum of information available in HOPEX, but nevertheless having full visibility on the risks' context and environment, made of organizations, business processes and IT applications.

The main use cases that the new redesigned profile can address are:

- Creating risks
- Answering to risk assessment questionnaires
- Creating controls

) MEGA

- Answering to control assessment checklists
- Creating incidents
- Following-up on action plans and recommendations

2.4.7.1.Menu Structure

The menu of IRM Contributor has been completely revisited in order to provide multiple point of entries, addressing the multitude of use cases available.



The Contributor can now quickly access to a list of pending tasks, review his working environment, with the list of existing processes, organizations, applications and requirements, create and review risks, controls and incidents.

The new menu structure and the details of the different menu items are described in the table below.

In most of the menu entries (e.g. in the section "Tasks") the word "My" was deleted to shorten the text, but the content of the section is unchanged.

1 st Level Menu Item	2 nd Level Menu item	Description	Alternate List
Home			
Dashboard			
Tasks	Questionnaires	List of all questionnaires	<u>1 - Questionnaires</u>
		assigned to Contributor	<u>2 - Delayed</u>
		as Respondent or as	<u>Questionnaires</u>
		Delegate Respondent.	Same as Questionnaires
			but where Assessment
			Session planned end date
			is inferior to current date.
	Execution Checklists	List of all checklists	
		assigned to Contributor	
		as Respondent or as	
		Delegate Respondent.	
	Action Plans	All Action Plans the	<u>1 – Action Plans</u>
		Contributor is assigned to	2 - Delayed Action Plans
		as Action Plan Owner.	Same as Action Plans but
			where planned end date
			is inferior to current date.

	Recommendations	All Recommendations the	1 - Recommendations
		Contributor is assigned to	2 - Delaved
		as Recommendation	Recommendations
		Owner	Same as
		owner.	Recommendations but
			where planned end date
			is inferior to current date
	Actions	All Actions the	1 - Actions
	Actions	Contributor is assigned to	2 - Delayed Actions
		as Action Owner	Same as Actions but
		as Action Owner.	where planned and date
			is inferior to surrent date
My Environmont	Pusinoss Processos		
	Organizational Processos		
	Applications		
	Applications		
	Business Lines		
	Entities		
	Requirements	All Requirements	
		constraining elements	
		that the Contributor is	
		Risk Assessor or Control	
		Responsible for.	
Risks		Lists all Risks the	<u>1 - Risks</u>
		Contributor is Risk Owner	<u>2 - Risks in my Scope</u>
		for.	List of all Risks the
			Contributor is Risk
			Assessor for at least one
			of the Risk Contexts.
Controls		List of all Controls the	
		Contributor is Control	
		Responsible for at least	
		one of the Entities in the	
		Context.	
Incidents		List of all Incidents	<u>1 - Incidents</u>
		declared by the	<u>2 - Incidents in my Scope</u>
		Contributor	List of all Incidents
			reported against one of
			objects within the
			Contributor's scope.

2.4.7.2.Search

The full-text search and search by meta-class have been disabled for the IRM Contributor.

2.4.7.3.Collaboration

No collaboration section is available for IRM Contributors.

2.4.7.4. Home Page & Tiles

All available tiles have been reviewed and rearranged, grouping them by topic to provide better clarity and ease of access.

M E G A



Tiles displayed by default were also reviewed in order to provide quick access to the most important and common actions, like creation of incidents and risks, execution of checklists and questionnaires and follow up of action plans.



2.4.7.5.Dashboard & Widgets

The list of available widgets has been enhanced and enriched, grouping them by topic to provide better clarity and ease of access.

The resulting structure is presented in the following table, which highlights the filtering by product license of the different folders and whether the widget was already existing or it's a new addition:

Folder	Licen se	Widget	Description
Action Plans	ALL	Action Plan Priority (already existing)	Same report of Action Plan Priority chapter from the Action Plan Follow-up report. Restricted to the Action Plans owned by the Contributor only and in the following statuses: to be started, in progress.
		Action Plan Gantt (already existing)	Same report of Action Plan Gantt overall but limited in

		1	
			parameters to the Action Plans owned by the Contributor and in the following statuses: to be
		Action Plans Dashboard (NEW)	Distribution of Actions by delayed or in time for each Action Plan 'in Progress' and owned by the Contributor.
		Action Plan by Progress (already existing)	"Action Plans by Progress' chapter of Action Plan Follow-up Report. Distribution of Action Plans owned by the Contributor by the following progress: On time, Delayed, No Deadline, Arriving at due date withinExclude other progress categories.
		Action Plan by Status (already existing)	Action Plans by Status chapter of Action plan Follow-up report. Distribution of Action Plans owned by the Contributor on a bar chart by their status. Only for statuses: To be Started, In progress, Completed
Recommendatio ns	IA	Recommendations Dashboard (NEW)	Distribution of Actions by delayed or in time for each Recommendations 'in Progress' and owned by the Contributor.
		Recommendations and Actions per Recommendation Owner (already existing) Recommendations per status and audit (already existing)	Table of Recommendations, owners, due date, Actions they own with Action owner and due date. Table of Recommendations, owners, due date, Actions they own with Action owner
		Recommendations per Status and Year (already existing)	and due date. Bar chart of all Recommendations distributed by year and colour coded by status.
Risks	ERM	Risks per status (already existing)	Same of the existing Risk per Status report but parameters limited to Risks owned by the Contributor.
Actions	ALL	Actions by Progress (NEW)	Distribution of Actions owned by the Contributor by the following status/time: Open/on time, Open/Delayed

By default, the following widgets are shown on the dashboard:

• Action Plan by Progress

- Recommendations Dashboard
- Actions by Progress

2.4.7.6.Lists & Right-click Menu

All lists have been reviewed in order to highlight the most valuable information for the end user, removing technical columns, adding useful automatically computed attributes and reducing the available buttons when selecting objects.

The right-click menu was disabled on all lists.

Tasks – Questionnaires

It has a button to switch between questionnaires which are still on time and those which are late.

For questionnaires on time

Displayed columns are:

- Name
- Assessed Object
- Assessment Planned End Date
- Assessment Session
- Progression: if the questionnaire is partially filled, then 'Started'. If questionnaire does not contain any answer, then 'Not Started'.

Grouped by: Progression

Actions available on list items are:

- No item in the list selected: <u>None</u>
- When at least one item in the list is selected: Workflow

For delayed questionnaires

It displayed only questionnaires sent to user where current date is superior to Assessment Planned End Date and in one of the following statuses:

- To be Completed
- Delegated
- Transferred

Displayed columns are:

- Name
- Assessed Object
- Assessment Planned End Date
- Assessment Session

• Progression: if the questionnaire is partially filled, then 'Started'. If questionnaire does not contain any answer, then 'Not Started'.

Grouped by: Progression

Actions available on list items are:

- No item in the list selected: None
- When at least one item in the list is selected: <u>Workflow</u>

Tasks – Execution Checklists

It displays only execution checklists sent to the user and in one of the following statuses:

- To be Completed
- Delegated
- Transferred

Displayed columns are:

- Name
- Progression: if the checklist is partially filled, then 'Started'. If checklist does not contain any answer, then 'Not Started'.
- Planned Execution End Date

Grouped by: Progression

Actions available on list items are:

- No item selected: <u>None</u>
- When at least one item in the list is selected: <u>Display Checklist</u>, Workflow

2.4.7.7.Tasks – Action Plans

For (my) Action Plans

It only displays Action Plans where user is owner.

Displayed columns are:

- Name
- Priority
- Owner Entity
- Planned End Date
- Real Begin Date

Grouped by: Status

Actions available on list items are:

- No item in the list selected: None
- When at least one item in the list is selected: Workflow

For Delayed Action Plans

It only displays Action Plans where user is owner and current date is superior to planned end date.

Displayed columns are:

- Name
- Priority
- Owner Entity
- Planned End Date
- Real Begin Date

Grouped by: Status

Actions available on list items are:

- No item in the list selected: None
- When at least one item in the list is selected: Workflow

2.4.7.8.Tasks – Recommendations

Displayed columns are:

- Name
- Priority
- Due Date
- Audit
- Planned Closing Review

Grouped by: Status

Actions available on list items are:

- No item selected: <u>None</u>
- When at least one item in the list is selected: Workflow

For (my) recommendations

It only displays Recommendations where user is owner and status is one of the following:

- Action Plan to Be submitted
- In Progress
- Action Plan Progress Rate to Be Updated

• Action Plan Progress Rate Updated

For delayed recommendations

It only displays Recommendations where current date is superior to due date AND where user is owner AND status is one of the following:

- Action Plan to Be submitted
- In Progress
- Action Plan Progress Rate to Be Updated
- Action Plan Progress Rate Updated

2.4.7.9.Tasks - Actions

Displayed columns are:

- Name
- Status
- Priority
- Planned End Date
- Owner Action Plan
- Recommendation

Grouped by: Status

Actions available on list items are:

- No item selected: None
- When at least one item in the list is selected: Workflow

For (my) Actions

It only displays Actions (from Recommendations or Action Plans) where user is owner and status is 'Open/In progress'.

For Delayed Actions

It only displays Actions where the Planned End Date is overdue.

2.4.7.10. My Environment **Business & Organizational Processes**

It displays all Business Processes that match either of the following conditions:

- All Processes having the Contributor assigned as Risk & Control Assessor
- All Processes being in the Context of an Assessment Node (assessing a Risk) associated to a Questionnaire assigned to the Contributor

Applications

It displays Applications being in the Context of an Assessment Node (assessing a Risk) associated to a Questionnaire assigned to the Contributor

Business Lines

It displays Business Lines being in the Context of an Assessment Node (assessing a Risk) associated to a Questionnaire assigned to the Contributor

Entities

It displays Entities that match either of the following conditions:

- All Entities where the Contributor is assigned as Risk & Control Assessor
- All Entities associated to a Control where the Contributor is Control Responsible
- All Entities being in the Context of an Assessment Node (assessing a Risk or Control) associated to a Questionnaire assigned to the Contributor

Requirements

Taking into account the objects displayed in the previous chapters (Business & Organizational Processes, Applications, Business Lines and Entities), it displays all requirements in the scope of those objects.

2.4.7.11. Risks

For (my) risks

It displays Risks owned by the user and in the following status:

- To be Submitted
- To be Validated
- Rejected
- Validated

Displayed columns are:

- Name
- Status
- Creation Date
- Validation Date
- Risk Assessor: query determining if Contributor is one of the Risk Assessment Respondents
- Questionnaire Awaiting: displays whether a questionnaire for Risk Assessment is awaiting action by the Contributor

Grouped by: Status

Actions available on list items are:

- No item selected: <u>New</u>
- When at least one item in the list is selected: Workflow, Instant Report, Excel

For risks in my scope

It displays the risks where user is responsible for at least one context element of the Risk (Contributor as respondent) and in the following status:

• Validated

Displayed columns are:

- Name
- Owner
- Validation Date
- Latest Assessment Date
- Questionnaire Awaiting

Actions available on list items are:

- No item selected: None
- When at least one item in the list is selected: Instant Report, Excel

2.4.7.12. Controls

It displays the list of Controls the Contributor is responsible for. There is no workflow for Controls.

Displayed columns are:

- Name
- Latest Execution Rate: only takes into account the execution or assessment performed on this Control by the Contributor
- Latest Execution Date: only takes into account the execution or assessment performed on this Control by the Contributor
- Next Planned Execution Date: only takes into account the next execution session end date for this Control if an execution checklist was sent to the Contributor
- Awaiting Execution Checklists: displays whether a questionnaire or checklist for Control is awaiting action by the Contributor as Control Responsible
- Latest Pass Control Level: only takes into account the execution or assessment performed on this Control by the Contributor
- Latest Assessment Date: only takes into account the execution or assessment performed on this Control by the Contributor
- Awaiting Assessment Questionnaires: displays whether a questionnaire or checklist for Control is awaiting action by the Contributor as Control Responsible

Actions available on list items are:

- No item selected: None
- When at least one item in the list is selected: Instant Report, Excel

2.4.7.13. Incidents

For (my) incidents

It displays Incidents declared by the user and in the following status:

- Draft/ To be Submitted
- To be Approved
- To be Validated
- Rejected
- Validated
- Closed

Displayed columns are:

- Name
- Declaration Date
- Impact
- Net Actual Loss
- Declarant's Entity
- Occurrence Date
- Last Transition By

Grouped by: Status

Actions available on list items are:

- No item selected: <u>New</u>
- When at least one item in the list is selected: Workflow, Instant Report, Excel

For incidents in my scope

It displays Incidents declared against one of the following objects:

- Business Processes
- Organizational Processes
- Business Lines
- Applications
- Entities

if object is within the Contributor's scope and in the following status:

• Validated

Displayed columns are:

- Name
- Declaration Date
- Impact
- Net Actual Loss
- Declarant's Entity
- Occurrence Date
- Number of Action Plans

Actions available on list items are:

- No item selected: None
- When at least one item in the list is selected: Instant Report, Excel

2.4.7.14. Available Report Templates

List of available report templates was cleaned up and filtered based on available product license key. These reports are available when using the tile "New Report" from the home page.

Details of the adopted filtering criteria are provided in the table below:

Report Template	License
Action Plan Gantt	ERM
	IC
	LDC
Action Plan Follow up	ERM
	IC
	LDC
Actions Gantt	ERM
	IC
	LDC
Risks per Status	ERM
Risk Context Synthesis	ERM
	LDC
Recommendations and Actions per Recommendation Owner	IA
Recommendations per Status and Audit	IA
Recommendations per Status and Year	IA

2.4.7.15. Questionnaires UX Improvement

Questionnaires UX has been improved adding pre-conditions and filtering criteria on the existing workflow transitions. Namely:

• Users can "Submit Answers" or "Close" a questionnaire only if at least one answer has been provided. Otherwise the workflow transitions are not available



• A warning message is displayed if the user is trying to finalize a questionnaire with pending questions, both mandatory and optional (this warning can be deactivated via an option in the Assessment folder "Enable warning message on assessment completion").

Furthermore, in the questionnaires list, a new automatically computed attribute is now displayed, to show what questionnaires are in progress and which haven't yet started. A questionnaire is considered to be in progress if at least one question has been answered.

2.4.7.16. IRM Contributor CRUD policy

The IRM Contributor profile used to inherit all CRUD permission by several obsolete GRC profiles. This inheritance has been removed and CRUD policies have been reviewed as follows:

Meta-Class	CRUD Policy
Account	R
Action	CRUD
Action Plan	CRUD
Answer/Audit	R
Application	R
Assessment Aggregation	R
Audit	R
Audit Activity	R
Audit Theme	R
Business Line	R
Business Process	R
Compliance Activity	-
Compliance Test	-
Compliance Theme	-
Control	CRUD
Control System	R
Control Type	R
Database	-
Event	-
Expense (Mission)	-
Expense Sheet	-
External Reference	CRUD
Finding	R
Folder of Assessment	R
Sessions	
Folder of Business Lines	R
Folder of Objectives	R
Folder of Organizational	R
Processes	
Folder of Org-Units	R
Gain	CRUD
General Task	-
Gross Income	-
Incident	CRUD
Incident Type	R
Indicator	-
Issue	R
Library	R
Loss	CRUD

Macro Incident	R
Objective	R
Operation	R
Organizational Process	R
Org-Unit	R
Person (System)	R
Plan	R
Product	R
Progress	CRUD
Provision	CRUD
Question/Audit	R
Recommendation	RU
Recovery	CRUD
Regulation Framework	R
Report	CRUD
Report (MS Word)	CRUD
Requirement	R
Requirement Type	R
Risk	CRUD
Risk Consequence	R
Risk Factor	R
Risk Type	R
Server	-
Site	-
Skill	-
Skill Level Value	-
Skill Type	-
Test	-
Test Activity	-
Test Item	-
Test Sheet	-
Test Theme	-
Time Sheet	-
Vacation	-
Work Paper	R

2.4.7.17. Filters by Product License

Based on the available product license, the IRM Contributor will have a limited visibility over the existing menu items. The implemented rules are resumed in the table below.

Level 1	Level 2	ERM	IC	LDC	Audi
					t
Home		Х	Х	Х	Х
Dashboard		Х	Х	Х	Х
Tasks	Questionnaires	Х	Х		
	Execution Checklists		Х		
	Action Plans	Х	Х	Х	
	Recommendations				Х
My Environment	Business Processes	Х	Х	Х	Х
	Organizational Processes	Х	Х	Х	Х
	Applications	Х	Х	Х	Х
	Business Lines	Х	Х	Х	Х
	Entities	Х	Х	Х	Х
	Requirements	Х	Х	Х	Х
Risks		Х			

Controls		Х		
Incidents			Х	

2.4.8. HOPEX IRM – Internal Audit

The Internal Audit module is now integrated in the Integrated Risk Management desktop so that users with a valid license can seamlessly carry out audit missions, managing risks and implementing controls from one single place.

2.4.8.1.Profiles

Among the existing profiles having access to the Internal Audit Module only two were kept:

- Audit Director
- Auditor

The existing administrator profile, Internal Audit Functional Administrator, was replaced with the general IRM Functional Administrator, available for all IRM products based on the available license.

2.4.8.2. Home Page & Tiles

The IRM home page now includes also pre-defined tiles for Internal Audit, such as:

- Work Program
- Ongoing Audits
- Recommendations



All available tiles are grouped under the folder "Audit".



Add tiles O
C 💼 **Generic Tiles**
🗖 🖮 IRM
🛚 💼 Risks
Controls
Compliance
🕄 🧰 Incidents
a 🖿 Audit
My Delayed Recommendations
My Recommendations
New Audit Plan
Ongoing Audits
Work Program
C 👝 Action Plans
C Environment

The table below provides details on new and existing tiles.

Tile	Status	Description
Ongoing Audits	NEW	Takes the user to Audit->Execution-> Ongoing Audits
My Recommendations	Existing	Takes the user to Task -> Action Plans -> Recommendations to
		Implement
My Delayed Recommendations	NEW	Takes the user to Task->Action Plans->Delayed
		Recommendations
New Audit Plan	NEW	Creates new audit plan and opens its property page
Work Program	NEW	Takes the user to Task->Audit which contains global work
		program, my work program and past audits as alternate lists

2.4.8.3.Menu Structure & Filters

Following the integration of Internal Audit in the new IRM desktop, the menu now contains new sections to account for the audit module. The table below provides the full list of menu items that are accessible using an Internal Audit product license, also documenting visibility rights for the different profiles:

Level 1	Level 2	Level 3	IRM FA	Audit	Auditor
Home			X	X	X
Dashboard			X	X	X
My Tasks	Audit		Х	Х	Х
	Time & Expenses	Vacation Requests	Х	Х	Х
		Timesheets	Х	Х	Х
		Expenses	Х	Х	Х
		Vacation Requests to Review	Х	Х	
		Expenses to Review	Х	Х	
	Action Plans	Recommendations to Implement	Х	Х	Х
		Delayed Recommendations	Х	Х	Х
Environment	My Organization	Entities	Х	Х	Х
		Processes	Х	Х	Х
		Business Lines	Х	Х	Х
		Applications	Х	Х	Х
	Financial	All Accounts	Х	Х	



		Products	Х	Х	
		Gross Incomes	Х	Х	
	Strategy		Х	Х	
	Regulations		Х	Х	
	Documents	All Documents	Х	Х	Х
		By Document Categories	Х	Х	Х
Libraries	HOPEX Libraries		Х	Х	
Audit	Audit Plans		Х	Х	
	Preparation	Decisional Reports	Х	Х	
		Vacation Requests	Х	Х	
		Template Question	Х	Х	
		Groups			
		General Tasks	Х	Х	
	Execution	Ongoing Audits	Х	Х	
		Others	Х	Х	
	Follow up		Х	Х	
	Remediation	Potential	Х	Х	
		Recommendations			
		Ongoing	Х	Х	
		Recommendations			
		Other Recommendations	Х	Х	
		Delayed	Х	Х	
		Recommendations			
		Recommendation	Х	Х	Х
		Reports			
		Actions by	Х	Х	Х
		Recommendation			
	Other	Reports based on	Х	Х	Х
		Datasets			
		DataSets	Х	Х	X
Admin	User Management		Х		
	Skill Management	All Skills	Х		
		All Sill Types	Х		
		Manage Skills with Users	Х		
		Audits by Auditor	Х		
	Calendars		Х		
	Tools		Х		

2.4.8.4.Dashboard

All existing Internal Audit widgets have been migrated into the new desktop. These are:

- Estimated and effective workload per audit plan
- Evolution of audit breakdown by category
- Evolution of audit scores
- Number of auditors per year
- Number of audits per audit plan

By default, the following widgets are displayed in the dashboard:

- Evolution of audit scores
- Estimated and effective workload per audit plan



2.4.8.5.My Tasks

The My Tasks section was slightly reorganized to account for the new entries coming from the Internal Audit module.

The newly introduced "Time & Expenses" menu aggregates all items regarding timesheets, vacations and expenses management that were previously in the "Test" section.

The true new addition is the "Audit" section which includes most of what an Auditor needs.

Audit Section

This menu item contains one single section with a button to switch between 3 views:

- My Work Program
- Global Work Program
- Past Audits

For the work programs, two columns have been added to display the following info:

- Status The audit status
- Activities The number of audit activities

2.4.8.6.Environment

Also the Environment section was slightly reorganized to account for the new entries coming from the Internal Audit module.

The newly introduced "Financial" section contains three items: the previously existing "Accounts" and "Gross Incomes" and the new one "Products", coming from Internal Audit.

Another new section has been introduced, called "Strategy", whose content is coming from the old "Objectives", previously replicated in Risks and Controls.

🚰 Home	" (Vour organi To create ne column To	ation's Objectives hearchy is objoined as a new bolow. • Descuer, which close on the Descuerse Todder to an any Objective and select "New" Descuering on the user postust locate, espectively the sum of Fiska p what of amont but of Fiskas and Company, again the Dispective page and go to Characteristics/Dispective/Descuers)	ostentially hindering and of Controls contributing to the realization	n of each Objective is di	spleyed in the corre
Dashboard				Sub-Objectives	Risks	Com
My Tasks		■ (> Obj	stives			
Environment	~	00	15% of Loyelty Club members in 2016	ō.	0	0
I Organization		0 🔕	19% of revenue in Asia by 2018	.0	0	0
© Financial		0 0	20% des réservations sur mobile en 2016 (FR)	0	0	0
쇼 Strategy		0 😳	30% of Loyelty Club members in 2018	0	0	0
\Lambda Risks		00	30% revenue by Internet in 2016	0	3	0
eff Controle		00	10% growth turnover by 2016	0	U	0
· Regulations		0 😝	20% de satisfaction client business en 2016 (FR)	0	۵	٥
Documents		D ()	4: Increased Revenue (Per Center & Employee) 🖬	3	0	0
Libraries		00	Accelerate Catalog Derivery	0	U	o
Assessment		00	3. Increased Market Share	0	۵	٥
Execution		0 🔕	troaden Customer Base	0	0	0
K Audit		00	By 2016 Increase Virtual Server Useage by 20%	0	0	0
iv Test		00	By 2016 Resuce Home Groom Applications by 20%	0	0	0
🛉 Favorites		0 ()	By 2017 Reduce Home Grown Applications by 40%	0	0	0
8 History		0 0	By Q1 2017 Reduce Application Usage of Retired Technology by 35%	0	0	0

2.4.8.7.Libraries

In the Libraries menu a new section "HOPEX Libraries" was added to provide a list of all existing libraries.

2.4.8.8.Audit

This section is the most important and includes all the functionalities required by an Audit Director. The structure of this menu was defined following the same approach used for the other modules (for ex. risks and controls).

Audit Plans

MEGA

It displays a tree structure with all existing plans of type Audit and Mixed (both Audit and Test). The following columns provide additional info which improve the navigation:

- Status
- Begin & End Date For both Audit Plan and Audit (planned dates)
- Audits Number of audits included in the plan
- Activities Number of activities included in the audit

In order to create a new Audit Plan, the user must right-click on the "Audit Plans" folder and select "New". Audits, instead, should be created directly within the relative Audit Plan, in the Audits tab.

Audit plans open on full screen mode in order to provide a better user experience and allow to open audits in the right panel at the same time.

Resources Assignment

From within an audit plan, the section to assign resources to an audit and define the audit leader was improved to make it much easier to assign and unassign auditors to a given audit mission.

The three existing buttons have been removed and replaced by ad hoc columns with checkboxes allowing to define the audit leader and assign or unassing auditors.

D	Μ	Е	G
---	---	---	---

Α

Audit 1	Estim. Resources	Curren 7			Leader	Assign/Unassign
udit-2		0	= ABAIN	IAGH Radouane		
			🗕 AIT M	OUSSA Mohamed		
			🗕 AIT M	Y LAHBIB Youssef		
			= AOUI	/IAR Mustapha		
		_	= AZOU	GHARH Youness		

Preparation

This section provides all info required to build an action plan and decide what audit missions are needed. It contains 4 tiles, as shown in the screenshot below.

Preparation			
DECISIONAL	GENERAL TASKS	VACATION	QUESTION GROUP
REPORTS		REQUESTS	TEMPLATES
Displays all reports you need to	Displays all General Tasks to be	Displays all Vacation Requests in a	Displays the existing templates for
have a clear vision on what audits	performed by auditors but not	list. Vacation Requests can be	Question Groups. New templates
should be planned.	specific to a particular Audit.	created and managed from here.	can be created from here.

The content of each section hasn't changed with respect to what was provided in the homonymous ones of the old Internal Audit desktop.

Execution

This section lists all existing audits, grouping them into two tiles:

- Ongoing audits Displays all audits which are either in preparation, in progress, potential, published or to be validated
- Other audits Displays all audits which are not ongoing: this includes audits which have been cancelled, closed, completed or rejected, plus all audit templates





Follow-up

This section displays the same content of the dual section for testers (which is in Test->Follow Up->TimeSheet Reports) but personalized for auditors.

Remediation

This section displays all existing recommendations, distributed in several tiles, following the logic documented in the table below.

Title	Description
Potential	Displays all recommendations which are yet to be validated. These are the
Recommendations	recommendations with statuses:
	1. To be submitted (TBS),
	2. Action plan to be submitted (PTBS),
	3. Action plan to be reviewed (PTBR),
	4. Action plan to be validated (PTBV)
Ongoing	Displays all recommendations which have been validated and are in progress. These
Recommendations	are the recommendations with status:
	1. In Progress (PROG)
	2. Action plan progress rate to be updated (PRTU)
	3. Action plan progress rate updated (PRU)
Other Recommendations	Displays all recommendations which have been closed or cancelled. These are the
	recommendations with status:
	1. Closed (CLO)
	2. Cancelled (CAN)
Delayed	Displays all recommendations where the Due Date is overdue.
Recommendations	

2.4.8.9. Analysis

In this menu two sections were added, within the "Action Plans" item, to report on recommendations and actions, both already existing in the old Internal Audit desktop. These are:

- Recommendation Reports Allows to build reports based on three pre-defined templates: "Recommendations Report", "Recommendations by Status and Audit" and "Recommendations by Status and Year"
- Actions by Recommendation

2.4.8.10. Administration

The most important addition to this menu was the "Skills Management" section which was integrally migrated from the old Internal Audit desktop.



Furthermore, the Calendars item, originally replicated in several places, was moved in this menu.

2.4.8.11. Review Notes

Thanks to the new desktop, it's now possible to add review notes to the main Audit objects, such as:

- Audit
- Audit theme
- Audit Activity
- Work Paper
- Finding
- Recommendation
- Action plan

2.4.9. Stored Risk Attributes

The following calculated Risk Attributes were re-calculated every time they were included in a list of Risks, leading to a drain in performance wen displaying lists of Risks or Controls. These are now stored at the end of an assessment session and do not require recalculation for the entire list.

- Impact
- Likelihood
- Inherent Risk
- Control Level
- Net Risk
- Forecast Risk

2.4.10. MS Excel Import/Export Template

An Excel import template is provided to facilitate the initialization of IRM repository

It includes :

- Context and Taxonomy objects:
 - o Entities
 - o Business Processes
 - Organizational Processes

🔵 MEGA

- Applications
- o Action Plans
- o Risk Types
- Control Types
- IRM objects
 - o Risks
 - o Controls
 - o Incidents

It is available for download on the HOPEX Store.

2.5.. New Questionnaire Builder

Starting from version 4, HOPEX provides a brand new module with a completely renovated user experience to build and answer questionnaires. All HOPEX products will benefit from the new module's advanced and powerful functionalities.

The module is based on a JavaScript component called "SurveyJS". To see the component in action outside of HOPEX it is possible to visit <u>the following link</u>.

After integration within HOPEX, the SurveyJS component has been readapted and enriched with standard HOPEX functionalities.

2.5.1.1.Create a new Questionnaire Template

From within HOPEX IRM, in order to create a new questionnaire template using the new builder, the user must go to the section Assessment -> Preparation -> Questionnaire Templates, and click on the "New" button.

HOPEX #	0 Q ~					• 80 -
Assessme	t / Preparation / Questionnaires Templates 👒			C	n×l∂× ∧* 🖵	• 🖪 🛆 🖻
	≪ ⊕ New					т
🚰 Home	D Name 1		Mode	Delegation Allowed	Questionnaire Template P_	Post Deployment
🍨 Dashboard	1 PPM - Project Risk Assessment		Standard	Yes		
🏯 My Tasks	2 Solution Building Block Capability Realization Assessment	₽ :	Standard	Yes	Questionnaire Templa	
🥭 Environmei	t 🗘 Application Assessment		Standard	Yes	Application Evaluation	
Libraries	Application Direct Evaluation V2		Direct	Yes	Questionnaire Templa	
岸 Assessmen	Assessment on Requirement by Regulation and Processes (Direct)		Direct	Yes		
% Preparat	i- 🗘 Audit Default Questionnaire		Standard	Yes	Audit Default Questio	
🕾 Campaig	na 🗋 🗘 Capabilities Assessment Questionnaire template		Standard	Yes	Questionnaire Templa	
Direct A	- Compliance Default Questionnaire Template		Standard	Yes	Compliance Default Q	
🔍 Follow L	P Control Assessment by Application		Standard	Yes	Questionnaire Templa	
📓 Results	Control assessment Questionnaire Template		Standard	Yes	Control Assessment	
a Execution	Control Direct Evaluation		Direct	Yes		
🐇 Audit	Control Execution Questionnaire		Standard	Yes	Control Execution Que	
🗊 Test	Customer Journey Questionnaire Template		Standard	Yes	Customer Journey Qu	
🖉 Analysis	Data Quality Assessment		Standard	Yes	Questionnaire Templa	
🚯 Administra	Land Data Quality Direct Assessment		Direct	Yes	Data Quality Direct As	
 History 	≪ < Page 1 of 1 > >> C Show 50 C elements					Displaying 1 - 37 of 37

Figure 3 - Create a new Questionnaire Template

After clicking on the new button, the user is presented with a wizard where he can provide the questionnaire title before the new questionnaire builder opens in full screen mode.



The new questionnaire builder adopts a WYSIWYG (What You See Is What You Get) interface.

Building the overall questionnaire's structure is easily done via drag-and-drop of the questions from a toolbox on the left, which lists all available question types.



The new WYSIWIG interface allows to directly edit questions' content via a simple click of a button and quickly rearrange questions via drag-and-drop.

2.5.2. Questionnaire and Questions' Properties

Every element of the questionnaire has a set of properties which are accessible via a property pane, on the right-hand side of the questionnaire builder.

From the property page of a question it is possible to define things such as:

- Question unique name (used when defining any type of logic and validation rules)
- The question text itself
- An optional question description
- Whether the question is mandatory and/or can be delegated
- All the possible answers in case of questions of type checkbox, radiogroup and dropdown
- The logic to make the question mandatory and/or visible based on predefined conditions
- Any validation rule to be executed when the question is answered

2.5.2.1. Questions Logic and Validation

With the new Questionnaire Builder, it is now much easier to write the logic to conditionally make a question visible and/or mandatory, since it is no longer required to use complex meta-tests. Instead a dedicated section in the question's properties, help the user write the required logic with a few simple clicks.

General				^
lame				
question1				
itle				
What is your	favorite color?			
escription				
				/
Is rec	quired?			
Allow De	elegation			
Choices				^
Form Entry	Fast Entry			
	Value	Text	Id Abs	
Edit	Red			×
Edit	Blue			×
Edit	Yellow			×
Add New	Remove All			

Logic		•
Visible If		
${question1} = true$		•
Build Edit		
question1 🗸	equals	
Please enter/select the valu	e	-
Remove		

It is also very easy to build any type of validation expression to ensure questionnaire respondents follow a business defined logic when answering the questionnaire.

2.5.3. Answering a Questionnaire

The new module provides a renovated and improved layout when answering questionnaires.

There are two types of questionnaires:

- Standard
- Direct

2.5.3.1.Standard Questionnaires

With standard questionnaires, the floating toolbar allows to open the questionnaire via a dedicated icon. The questionnaire opens in full screen mode in order to provide the best user experience for the responder.

Questionnaire Instance				⊚
			å	₽
List of contexts	Risk			- 13
List of contexts	Risk-2 Risk Assessment I. Impat Cross Likelihood Cross Gross Cross Cross		~	8
		🌁 Save & Close	Sub	mit

The new layout is characterized by the following sections:

• A **left sidebar** which lists the elements to be assessed or upon which the questionnaire is based. Every element is followed by a colored icon which represents the status of the single questionnaire instance. Orange means that the questionnaire was never opened. Red means that the questionnaire is invalid, which is the case, for example, when the user opens the questionnaire, but he/she does not answer one or more mandatory questions. Green is when the



questionnaire is valid, which is the case when all mandatory questions have been answered.

- The **main pane** which displays the questionnaire instance related to the element selected in the left sidebar.
- The **header menu buttons** which allow to access further details of the element currently being selected in the left sidebar. In particular, the user can:
 - Browse the property page
 - Display the associated diagram.
- The **buttons** in the footer, which allow to:
 - Save all modifications done to the questionnaire and close it, in order to finish it at a later stage (button "Save & Close").
 - Launch the questionnaire workflow to either submit, delegate or transfer the questionnaire (button "Submit")

When the user tries to submit the questionnaire, a validation algorithm goes through all the elements in the sidebar, ensuring that all existing validation rules are satisfied (e.g. mandatory questions and validation expressions).

If this is the case, all elements in the sidebar will have a green squared icon and the questionnaire workflow wizard will be presented to let the user choose what transition to trigger.

Otherwise a red icon will be displayed next to the elements which are not valid. The user will have to go through these elements to respect the validation requirements (e.g. answer to mandatory questions being left unanswered, respect existing validation expressions).

The interface properly highlights in every questionnaire the elements where a validation problem was raised, helping the user to quickly identify the concerned question(s).

2.5.3.2. Direct Questionnaires

Direct questionnaires are, as usual, fully integrated in the property pages of the object to assess. The only change with respect to the old questionnaire module is the renovated layout.
MEGA .
Perform Assessment - Addon - Direct Answers
Measure Date*
5/27/2020
Change management overload
Risk Assessment
1. Impact
Choose 🗸
2. Likelihood
Choose 🗸
3. Control Level
Choose 🗸

2.5.4. Existing Clients & Data Conversion

2.5.4.1.Data Mapping HOPEX to SurveyJS and vice-versa

An automatic data mapping mechanism has been put in place for existing HOPEX users, in order to map the old HOPEX question types to the new ones.

The following tables provide a summary of the mapping, from HOPEX to SurveyJS and vice-versa. The mapping from HOPEX to SurveyJS is 1to1, while vice-versa is at times 1toN, which means that some parameters of the SurveyJS question are used to uniquely identify which HOPEX question the SurveyJS type maps to.

HOPEX	SurveyJS
Question Type	Question Type
Text	Comment
Vertical Radio	Radiogroup
ComboList	Dropdown
Multiple Answer	Depending on
Туре	content*
Date	NEW (Date)
Number	NEW (Number)
Boolean	Boolean
Multiple Values	NEW (Objects)
Short	NEW (Number)
Duration	Single Input
Object	NEW (Objects)
OK/NO/NA	Dropdown
Percent	Single Input
Signed Number	Single Input
String	Single Input
Question Group	Panel

HOPEX to SurveyJS

SurveyJS to HOPEX

SurveyJS Question Type	HOPEX Question Type
Single Input	Duration,
	Number String
Checkbox	NEW
Diagram	Presentation
	Tool
Radiogroup	Vertical Radio
Dropdown	ComboList,
	OK/NO/NA
Comment	Text
Boolean	Boolean
File	Object
Panel	Question Group

* HOPEX questions of type "Multiple Answer Type" allowed to group under one single question multiple types of possible answers. This type of questions after conversion are broken down into elementary questions, one per element defined in the original Multiple Answer Type object.

2.5.4.2.Questionning Motives

The Questionning Motive was a concept used in HOPEX to tag questions defined on specific objects, like Controls, so that they could automatically and dynamically feed a questionnaire template when the given control was in the questionnaire scope.

With respect to the controls, for example, two questionning motives allowed to define questions to be used as either Control Steps or Test Steps.

To create these types of questions now the procedure is identical to creating a new questionnaire template.

For existing clients, for example, controls with existing control steps, will now present a questionnaire template through which users will be able to edit and manage all the control steps.

2.5.5. Unsupported Features & Manual Data Conversion

A dedicate report has been implemented in order to provide existing clients with details about the impacts of the new questionnaire builder with respect to existing data.

This report can be launched in two ways:

- On the entire environment data, via the user menu, under Settings->New Questionnaire Builder Report
- On a single questionnaire template, via the right-click menu, selecting "Convert"

If the user tries to open an old questionnaire template, containing no longer supported features, via the new questionnaire builder, these elements will simply be neglected.

2.5.5.1. Questionnaire Presentation

There is now only one layout used to display questionnaires, which is applied by default for every questionnaire template.

2.5.5.2.Presentation Tool

With the new questionnaire builder it is no longer possible to define questionnaire elements of type presentation tool. Nevertheless, for diagrams, the new questionnaire layout now automatically integrates them in the interface, as described in the chapter Standard Questionnaires.

2.5.5.3.Meta-tests

All meta-tests used to manage whether a question had to be visible and/or mandatory will have to be rewritten using the new dedicated section in the concerned question property page.

2.5.5.4.Computed Questions

All computed questions must be re-created in the new builder.

2.5.5.5.Questions with Link Answered Object

Questions with Link Answered Object are no longer supported.

2.5.5.6.Question Groups populated by query

Question Groups populated via a query are no longer supported.

2.5.6. How to install the new module

The new questionnaire builder is a module which is automatically installed at HOPEX installation time.

First time clients will automatically benefit from the new module, while existing ones have the option to activate it at a later stage. This is to minimize impacts and potential disruption that might occur due to existing questionnaire templates that will require some adaptations to seamlessly work in the new builder.

2.6.. HOPEX Privacy Management

The new release includes three major features improvements:

- 1. Action Plans
- 2. Regulation Frameworks
- 3. Search results

Also, various UX improvements were addressed to better display the information in existing property pages and wizards.

2.6.1. DPIA & Reusable Risks

A new powerful functionality has been added to this new version of HOPEX Privacy Management which allows to reuse privacy risks across Data Protection Impact Assessments (DPIAs), thus helping organizations to build a centralized privacy risks register.

This functional improvement also allows to import in the organization environment a list of predefined privacy risks through a ready-to-use Excel template, so that whoever carries out a DPIA can identify applicable risks looking at the risks register.

Privacy risks are categorized into 5 types

- 1. Illegitimate Access
- 2. Data Loss
- 3. Data Integrity
- 4. Data Unavailability
- 5. Unlawful Processing



Figure 4 - DPIA risk types

_ M E G A

Every risk created via the DPIA is assigned to one of the 5 possible types and will become automatically available to any other user carrying out a DPIA.

New Risk Assessment 🦨 🗙			
Create new Risk			
○ Reuse an existing Risk			
lisk Name*			
isk Cause	, New Risk Assessmen	ıt	2
	O Create new Risk		
ata Subject Impact	 Reuse an existing R 	isk	
	Select a Risk	Comment	
ecurity Measures	= Wrong address	Personal data being posted to an incorrect address which results	
~	 Verbal Disclosure 	Verbally disclosing to or discussing personal data with someone not entitl	
k Description	 Unauthorized acc 	Any action which allows an unauthorized individual access to Company b	
	 Freely accessible 	Not locking away documents containing personal data (at home or work)	
		Figure 5 - Reuse existing risks	
Previous Next OK Cancel			

Figure 6 - DPIA: wizard to create or reuse risks

2.6.2. Updated Record of Processing & DPIA Word Reports

Both the record of processing activities and the DPIA Word reports have been updated to include some additional info about the processing activities.

2.6.3. GDPR Acronym Cleanup

With this release the product officially changes its name from HOPEX GDPR to HOPEX Privacy Management. In order to account for this new product name, the user interface went through a thorough cleanup to remove the GDPR acronym.

The cleanup of the GDPR acronym from the application involved several items. Based on the circumstances, the cleanup consisted in either deleting the acronym "GDPR" or replacing it with "Privacy", "Data Protection" or "Privacy Management".

The renaming involved mainly:

- User profiles
- Meta-classes
- Meta-attributes
- Widgets

• User options "GDPR" folder

2.6.4. User Profiles – New Names

The existing user profiles have been renamed according to the new product name, thus the acronym GDPR was removed by all existing profiles. No functional modifications were applied.

Consequently, the new profile names are:

- Chief Privacy Officer
- Data Protection Officer (DPO)
- DPO Correspondent
- Privacy Team
- Activity Owner
- Privacy Functional Administrator

2.6.5. Action Plans

HOPEX Privacy Management now includes Action Plans. A new section has been added to the burger menu to centrally manage all action plans originated from the privacy compliance initiative.

Action Plans 4					0) firldr 🖓	
~~	👳 All Action Plans 👻 🛞 New						
Home	O Name		Pnerity	Planned Degin Date	Pleased End Date	Real Degin Date	Real End Date
Dashboard	Completed (3)						
Key Elements	🔲 😾 Implementation of CO2 sensors	B :	E Medium	9/18/2014		9/18/2014	
Organization	Impove procedure descriptions		Medium	6/27/2014	9/17/2015	6/27/2014	9/17/2015
P Record of Pr	🗆 🗮 Underwriting insurance policies		Medium	4/22/2015	7/31/2015	4/22/2015	7/31/2015
Data Subject	In progress (5)						
Personal Dat	Improve control on Projects Loan Management		Critical	9/1/2015	12/31/2016		
Regulations	Annual review of accounts		Medium	1/5/2016	7/11/2016		
Action Plans	Annual Review of supplier contracts		Critical	2/5/2016	11/25/2016		
Reports	🖸 👼 Check on orders		Low	1/12/2016	B/16/2016		
Import	Setting up monthly schedules		Critical	1/1/2016	11/20/2016		
	Rejected (1)						
Collaboration	🗋 😾 Framework agreement implementation		Low	1/28/2016	9/30/2016		
	To be sent (8)						
	Annual review of providers account		Low	3/5/2016	9/30/2016		
	Check invoices for each delivery		Low	3/1/2016	9/30/2016		
	Enlarge range of payment means		Medium	6/9/2015			

Three use cases are addressed:

- 1. Follow-up on Data Protection Impact Assessment results and implement remediation actions to address the various regulatory gaps and implement required security measures
- 2. **Manage a data breach**, ensuring an efficient collaboration among all involved stakeholders to address all regulatory requirements within the pre-defined timeframe
- 3. **Manage a data subject request**, enabling communication between affected departments and ensuring a prompt response, within the regulatory timeframe.

Within an action plan it's possible to specify:

) M E G A

- **RACI matrix**, to highlight responsibilities of the various stakeholders
- Financial impact of the plan
- Success factors, to document KPIs and track the result of the plan
- **Scope**, to link existing processing activities and document which ones are impacted by the plan
- Actions, to break down the plan in elementary items which can be assigned to different stakeholders and can be monitored during their implementation thanks to the existing pre-defined workflows

Predefined reports allow to monitor the action plan activities' status and a summary view of the plan progress.





2.6.5.1.Workflows

Action Plans come with predefined workflows to follow the progress of the plan and assign the various activities to responsible stakeholders who will be guided towards the completion of their assigned task.



Three pre-defined workflows are available:

- **Top-down Action Plan Workflow** To help the management follow the progress of an action plan
- **Button-up Action Plan Workflow** To ensure involved stakeholders follow pre-defined validation steps for the existing action plans
- Action Workflow To help the management follow the progress of every single action of a plan

2.6.6. Worldwide Regulations and Regulatory

Requirements

It is now possible to document regulatory requirements and track their impact on the existing processing activities.

A new section has been added, allowing the user to document regulations and their requirements.



For every regulation it's possible to provide the following details:

• Application date and a detailed description

MEGA

- **RACI matrix**, to highlight responsibilities of the different stakeholders. The same can be done at the requirement level.
- **Scope**, to link existing processing activities impacted by the regulation. The same can be done at the requirement level
- **Requirements**, to break down the regulation in elementary items and have a better granularity over the impacts of the regulation

Every requirement can be organized in sub-requirements if necessary.

Your organization's regulatory Requirements are presented below as trees starting from each Regulatory Framework	A.05.1 Management Directions for Information Security
To view sub-Requirements, expand the + of the relevant Requirement or Regulatory Framework.	Regulation Framework
Regulation Frameworks	A 05 Information Security Policy
A 05 Information Security Policy	Priority
C A.05.1 Management Directions for Information Security	→ ×
the A 06 Organisation of Information Security	Detailed description *
A.06.1 Internal Organization	[7] Default font • B I U T' T' I ∨ III ∨ E ± ≡ % :
A.06.2 Mobile devices and teleworking	Ubjective: to provide management direction and support for information security in accordance with business requirements and relevant law and regulations.
0 🏆 🛛 A.07 Human Resource Security	
C 😷 A 08 Asset Management	
C TP A 09 Logical Security / Access Control	Responsibilities
C T A.10 Cryptography	Scope
C 🏩 A.11 Physical and environmental Security	P Connect 🗒 🖬 🕇
A 12 Operations Security	Processing Activity Status Assessment Status Creation Date Department
A 13 Communications Security	Design of Organization Str Output Design of Organization Str
C 😷 A.14 System acquisition, development and maintenance	Disciplinary Measures and _ O Live 6/26/2018 Technical Supp
C 🏆 A 15 Supplier relationships	Email Marketing OPIA Done 6/26/2018 Marketing
C 🍄 A 16 Information Security Incident Management	
C 1 A17 Business Continuity	≪ < Page 1 of 1 > >> C Show 50 ♦ elements Displaying 1-3 of 3

HOPEX Privacy Management now helps you monitor how regulations and requirements impact your processing activities. A new section has been added to the processing activity, listing regulations and requirements applying to it. This information is particularly valuable when carrying out a Data Protection Impact Assessment, since it highlights what are the practical impacts of existing worldwide regulations.

MEGA

	List Hierarchy View				Disciplinary Measures and Conciliation							
•	New 🛛 Record Scope			т		Status: 💿 Live						
	Processing Activity 1	Department	DPO		Overview Legal Basis Details Regulations F	reassessment DPIA Action Plans						
	Accidents and diseases management	Finance	Jon Smith	Live	(1) The tree below lists all regulatory requirements that apply to this process.	ising activity.						
	Company car fleet management	Technical Supp		Live		Description						
0	Design of Organization Structure and Pay Structure-MA	Information Tec	Jon Smith	Live	A.05 Information Security Policy							
	Disciplinary Measures and Conciliation	recrimical supp		🙂 unt	A 05.1 Management Directions for information Security	Objective: To provide management direction a						
0	Email Management			G Live	🗖 🏆 - A.18 Compliance							
	Email Marketing	Marketing		Live	A.18.1 Information security reviews	Objective. To ensure that information security i						
0	Employee training Management	Technical Supp		Uve	Enterprise Financial Policy							
0	Employees Costs Management	Finance	Jon Smith	Live	Financial Flow Proof							
0	Employees evaluation process support	Information Tec.	Jan Smith	Live	ISO 27001							
	Financial Reporting	Finance	Jon Smith	O Live	🗖 💌 Asset Mänägement							
0	Help Desk	Technical Supp		Uve	information classification							
0	IT Logs Management			G Live	Classification guidelines							
	IT systems administrators			G Live								
	Payroll and benefits-MA	Finance	Jon Smith	G Live								

2.6.7. Search Results

All objects created in HOPEX Privacy Management can now be searched through the full text search. It's now much easier to access a given processing activity, a data breach or a data subject's request simply typing a keyword in the search bar.

HOPEX Privacy Management	₽	disciplinary mea	0 Q				
Record of Processing / All Proc	cessi	FullTextSearch:					
		disciplinary mea					
	4	Suggestions:					. 1
삼 Home	C	Disciplinary Measures and				τ	
🕭 Dashboard	D	Conciliation		Department	DPO		
📲 Key Elements		Accidents and diseases management		Finance	Jon Smith	live 🍪	1
🎥 Organization		Company car fleet management		Technical Supp		live 🍪	1
Record of Processing		Design of Organization Structure and Pay Struc	ture-MA	Information Tec	Jon Smith	🍪 Live	L
🏩 Data Subject Managem		Disciplinary Measures and Conciliation		Technical Supp		live 🍪	l

2.6.8. Other Minor Improvements and Modifications

2.6.8.1.Add Applications to a Processing Activity

The wizard to add an application to a processing activity was enhanced so that now users have a simple dropdown field, through which they can quickly search for existing applications to be linked to the processing activity, and eventually create a new application using the dedicated option in the dropdown list.

M E G A



2.6.8.2.Learning Materials & Templates removed from burger menu

In order to avoid having too many items in the burger menu (after the addition of "Regulations" and "Action Plans") the entry "Learning Materials & Templates" was removed. To access it there's still the ad hoc tile on the home page.

2.6.8.3.Creation wizards layout improvement

Following the latest CSS improvements, some of the wizards used in the application could benefit from a rearrangement of their fields, avoiding displaying them in one single column. Also, a review of mandatory fields was carried out, for example to avoid the creation of objects without a name.

Departments

The wizard layout to create departments was improved. The same was done with the property page where, additionally, a new tab was created, called "Department Roles" where all fields such as "Department Manager", "Deputy DPO" and "IT Support Correspondent" were moved.

				Status: *	🙆 Live	
Overview	Department Roles	Users				
Department Ma	nager		Deputy DPO			
Camille Dubu	c	~				

2.7.. HOPEX IT Strategy

MEGA

HOPEX IT Strategy is now deprecated and superseded by HOPEX IT Business Management new offering.

2.8.. HOPEX IT Portfolio Management

2.8.1. UX Improvement

Portfolios inventory page has been redesigning to allow portfolio manager to add any attribute of application or technology as column of the inventory page.

IT PORTFOLIO MANAGEMENT	#		0 Q ¥							Last Saved 🗘	👷 🕐 🤅	€
Home / My Application Portfo	lios <								C	~* 🖵 ·	🖻 🕹 🖻	ф
🔁 Inventory 🕶												
Add Application 🔤 Align Ob	ject life										Ć	7
Local name 🕇	Current State	Global Expense	Current Number of Us	- Cost	per User	Rank		Technology Compliance	Expenses	CAPEX	OPEX	
🗆 🛃 Account	 Retired 	€0.00		† Sor	t Ascending		ars	Prohibited	€0.00		€0.00	^
🗆 🛃 Billing	Production	€383,500.00	10	↓ Sor	t Descending		ars	Accepted	€173,500.00		€0.00	L
🗆 🛃 Billing v2.0	Production	€0.00		Sor	t by default		E F	leading access area identifier	€0.00		€0.00	T
🗆 🛃 Catalog Management	Production	€0.00		📰 Col	umns	•	- A	pplication Code	€0.00		€0.00	1
🗆 🛃 CRM Europe	Production	€2,735,727.00		Ord	ler the columns by defa	ult	_ c	cloud Computing	€2,735,727.00		€0.00	L
🗆 🛃 CRM US	Production	€621,000.00		D Uni	reeze		_ v	ersion Number	€621,000.00		€0.00	L
🗆 🛃 GIP.SSI	Retirement	€0.00			eze		F	lequired Memory-Size	€0.00		€0.00	1
🗆 🏜 Global Customer	Preparation	€63,000.00		Dis	play in groups		× 0	lobal Expense	€63,000.00		€0.00	1
🗆 🛃 Holidays/vacancies	Production	€6,000.00	12	Co	ofigure the columns by	default	✓ c	urrent Number of Users	€6,000.00		€0.00	1
🗆 🛃 HR Management	Retirement	€0.00		0	€0.00	🙀 2 St	Z 0	cost per User	€0.00		€0.00	1
Investors manageme	Production	€12,000.00	4	5	€266.67	🙀 3 St	✓ F	tank	€12,000.00		€0.00	1
🗆 🛃 IT Management	Retirement	€0.00	4	0	€0.00	🛧 4 St	⊻ т	echnology Compliance	€0.00		€0.00	1
🗆 🛃 MEGA Audit	 Retired 	€0.00		0	€0.00	🙀 5 St	⊻ E	xpenses	€0.00		€0.00	1
MyCompany.com	Production	€369.600.00		0	€0.00	🛧 4 St		APEX	€369,600,00		€0.00	
MyCompany.com Mo		€2 520 276 00		0	£0.00	🛧 4 St	v c v e	usiness Value	€2 520 276 00	€1.20	1 276 00	
	- Preparation	620,400,00		0	60.00	A 4 00	₹ F	unctional Support	621,000,00	01,20	60.00	
< >	<	€29,400.00		•	€0.00	M 4 31	⊻ т	echnical Efficiency	€21,000.00		20.00	>
« « Page 1 of 1	> > "O Show	50 ¢ elements					N	Nore		Dis	playing 1 - 20 of 2	20

Shift to new desktop (icons)

Separation of Version and Installation tabs in Software Technology Property Page Personalization of messages for empty lists (except for property page lists)



2.8.2. Technical Functionality Tree

Supply of Technical Functionality Map and Technical Functionalities.

2.8.3. Completeness Dashboard

MEGA

The repository completion dashboard has been renewed to individual widget made with HOPEX studio

They indicate the completeness of the repository or the completeness of the asset manage by the connected user regarding one of the aspects of the assets.

- Completeness of Application Assessment : the gauge represents the percent of all evaluated applications.
- Completeness of Application Live Cycle : the gauge represents the percent of applications with object life.
- Completeness of Application Deployment : the gauge represents the percent of applications with deployment.
- Completeness of Application Cost : the gauge represents the percent of applications with at least one cost line.
- Completeness of Application Technology : the gauge represents the percent of applications with at least one technology or one technology stack.
- Completeness of Technology Live Cycle : the gauge represents the percent of Technologies with object life.



2.8.4. Business Capability Breakdown

The UX of the Business Capability Breakdown has changed, to be more readable and adaptative to the space available for the report. It is now possible to visualize on the same report 6 properties of the application.

2.8.5. Timed Business Capability Breakdown

The UX review of the Time Business Capability Breakdown has changed, to be more readable and adaptative to the space available for the report.

2.8.6. Functionality Breakdown

The UX of the Functionality Breakdown has changed, to be more readable and adaptative to the space available for the report. It is now possible to visualize on the same report 6 properties of the application.

2.8.7. Application Graph

MEGA

Graph of the ITPM Solution has been re-engineered to use HOPEX Studio Graph Set definition. Impacted reports are :

- Exchange between application
- Application Environment graph
- Application System Environment graph



2.8.8. Business Capability Treemap

HOPEX provide a report to visualize quantitative data of application over the capability hierarchy.

Ē	HOPEX IT PORTFOLIO MANAGEMENT	₽	Select an o	bject type	✓ Find of	bject	> Q -							Last Saved	Q• 🖪 📀) 🕞
=				Define Busines	s Direction							C	₩× 4	* 🔺 🖵	• 🖻 🕹	Þ
	**															*
		Busines	s capabilities:	Bank Capab	ility Map											> ^
Ø	Cost	Portfolio	0:	Global Appli	cations Portfolio										>	
F 9	Application	Refres	sh the report													
2	Technology														Actions	5
e	Other Reports Number of displayed levels 2 V Display criterion Number of applications V															
			Bank Capability	/ Map												- H.
			Create 'Next Pa	ayments' R&D	Develop Market an	d Brand Defi	ne Business Direction	evelop P	artner Ecosy	stem	Operate Bu	siness				
			Cre	Cre	Define Business Directio		nber of components 0 nber of applications 0.52 at of applications €566,023.94	Broker Crowfunding		Def	Develop Str	Develop Strategic Planning		Maximize Human Capital		
		<	Cro	Dev	Markat Produc		Ope									
				Dev	Market Pro	ducts		Dev		Dev Man				current current	ort Investore	
			Deliver Custom	ner Experience								Gov	optimizera	icinites supp	on investors	
			Con	Cre	Operate Competitiv	re Intelligence	Set Pricing		Sup	Use						
					Develop Multichan	nel Canabilities					Proactively	Detect and Resol	ve Risk	Provide Account Service		
			Man	Onb										Offer Coporate Loans	Pro	
					Cre	Sun	Sup	Execute In Del	ivestment Pr	oducts Man	Bal	Evaluate Risk	Man		Ser Ser	
			Per	Sup	Green.	3 3 µ	Sup	Exe	Exe	off	Detect Frauc	Man	Mod	Offer Credit/Debit Card	Service Transfer	s v



2.8.9. Functionality Treemap

HOPEX provide a report to visualize quantitative data of application over the functionality hierarchy.

⊟ 1. Business Cap	ability Treemap											
Number of displayed	levels 3 v Dis	play criterion Numb	er of components $$									
PBS-FuncMap (FR)												
PBS-F-001 (FR)			PBS-F-003 (FR)		PBS-F-004 (FR)		PBS-F-006 (FR)	PBS-F-007 (F	FR)			
PBS-F-010 (FR)												
PBS-F-035 (FR)	PBS-F-060 (FR)	PBS-F-037 (FR)	PBS-F-041 (FR)	PBS-F-042 (FR)	PBS-F-046 (FR)	PBS-F-047 (FR)	PBS-F-051 (FR)	PBS-F-05	2 (FR)	PBS-F-053	! (FR)	PBS-F-054 (FR)
PBS-F-011 (FR) PBS-F-036 (FR)	PBS-F-061 (FR)	PBS-F-062 (FR)	PBS-F-066 (FR)	PBS-F-067 (FR)	PBS-F-071 (FR)	PBS-F-072 (FR)	PBS-F-076 (FR)	PBS-F-07	7 (FR)	PBS-F-078	(FR)	PBS-F-079 (FR)
			PRS-F-018 (FR)	PRS-F-019 (FR)	PBS-F-005 (FR)							
							PBS-F-008 (FR)			PBS	6-F-009 (FR)	
PBS-F-002 (FR)			PBS-F-043 (FR)	PBS-F-044 (FR)	PBS-F-048 (FR)	PBS-F-049 (FR)						
PB3F013 (FN)							PBS-F-055 (FR)	PBS-F-080 (FR)	PBS-F-057 ((FR) PB	S-F-058 (FR)	PBS-F-083 (FR)
PBS-F-038 (FR)	PBS-F-063 (FR)	PBS-F-040 (FR)	PBS-F-068 (FR)	PBS-F-069 (FR)	PBS-F-073 (FR)	PBS-F-074 (FR)						
PBS-F-014 (FR)												
PBS-F-039 (FR)	PBS-F-064 (FR)	PBS-F-065 (FR)	PBS-F-045 (FR)	PBS-F-070 (FR)	PBS-F-050 (FR)	PBS-F-075 (FR)	PBS-F-056 (FR)	PBS-F-081 (FR)	PBS-F-082 (32 (FR) PBS-F-059 (PBS-F-084 (FR)

2.8.10. Excel Import Template

An Excel import template is provided to facilitate the initialization of ITPM repository.

It includes :

- Basic Environment Inventory data (Org-unit, Sites, Business Processes)
- IT inventory data
 - Applications, Software pieces, Servers
 - o Their capabilities: Business Capabilities, Functionalities
 - Application Flows
- Portfolio and responsibility data

It is available for download on the HOPEX Store.

2.8.11. New reports based on chord diagram

- A report allows to analyze dependency between Business Capabilities by analyzing flows between their fulfilling agents (applications). The report takes in account decompositions of capabilities and their fulfilling agents.
- A report allows to analyze dependency between Agents by analyzing their exchanged flows. The report takes in account decompositions of agents.
- The two reports allow to drill down a chord to explain it.



2.8.12. Colors review

• Colors used in user interfaces and reports have been reviewed to be compliant with new HOPEX color palette

2.8.13. Menus and desktop

• The HOPEX IT Business Management/IT Portfolio Management desktops are updated with latest stylesheet



- Menus have been reorganized for rationalization
- Selection and positioning of default tiles have been reviewed for each ITPM profiles

MEGA







2.8.14. Improvement of lifecycle handling

• Automatic calculation of lifecycle states duration has been reviewed. It is now possible to define a fix or proportional duration for each state composing a lifecycle.

2.8.15. Change MetaAttribute calculation process

• Calculated MetaAttributes are mow stored and automatically recalculated each time a member of the calculation changes.

2.8.16. Data Glossary

Data Glossary is a menu to access to Data Asset Description in ITPM / ITBM. New features are added and some existing are improved.

2.8.16.1. Data Asset Manager profile

Data Architect can use Data Asset Manager profile to define Data in the ITPM/ITBM Desktop.



2.8.16.2. "Browse Term Definition"

he Business User can use "Browse Term Definitions" tool to locate definitions, and to create a new one. Definitions can be described by Term synonyms, illustrated by pictures, and attached some reports or documents.

HOPEX 000 0 # Home 🕐 Dashbo To-Do List S Environmen IT Por 📕 Data Asset Reports L Collaboration . Car Business Cable o Page 1 of 1 > 39 | 0 | Show 5 0 element element Displaying 1 - 5 of 5 🕑 New 🔯 🖪 · New Di B 0 - 4N B 1

2.8.16.3. Business Dictionary

MEGA

Definitions of Terms are "concepts". All this Business information can be organized by Business Dictionaries. The Business Dictionaries Inventory are available in list view or mode or hierarchy view.

HOPEX IT Portfolio Management	≓ 0 Q →	Autosaved 🔖	3 ? 🗗
Data Asset / Information Asset <	C 5-10-	N 🖵 V	
«	Hierarchy View List		
🚰 Home	Ny Business Dictionaries		
🕐 Dashboard	(New		T
📋 To-Do List	🖸 Local name 🕇 💙 Comment	Owner Group	
🤵 Environment	🗆 💊 Bank		
📋 IT Portfolio Management	BA_Enterprise-VSI	A BA_Enterpri	
📕 Data Asset	🗆 💊 Car Business Dictionary		
📝 Reports	🗆 💊 Car Rental Vocabulary	🗳 Car Rental	
🃩 Collaboration	🖸 🌯 Common	A Oakland Cit	
	🗅 🌯 Insurance		
	🗋 💊 Media Library Vocabulary	A Oakland Cit	
	🗋 💊 Mega-DoDAF Metamodel Mapping	🗳 MEGA-DoD	
╈ Favorites 🔞 History	≪ ≪ Page 1 of 1 > >> C Show 50 \$		Displaying 1 - 18 of 18

One or more Business Dictionaries can be used to generate the target Business Glossary in standard or table reports.

	GI	ossary Report	Glossary Report in Table Format									
HOPEX	t ≓ Selectan c	theorrapie 👻 Find object > Q 🔍 Autossived 🦙	Business Dictiona	Glossary Report								
Data Assets / Data Asset / I	Business Glossary Report 👒	O 6×10× 🛷 🗆 × 🗏	Business Dictionary Li	st								
~	Business Dictionary Terr	as Glossary Report	× Car Business Dict	ionary								
🔮 Home	Talast one or countril	Reviewer distinguise to display that's protect in a second term sourcest sources ato	Befresh the report									
• 0.011	Select one or several	ausiness dictionaries to display shell content in a report, term, concept, synonym, etc										
. Dasinoard	Business Dictionaries			Notice of Terror								
📋 To-Do List	× Car Business Dictionary	4	E 1. Business (actionary terms								
S Environment	Refresh the report		Business Dict	onary Terms								
IT Portfolio Management			Terms	Definition	Synonyms	Hypernyms	Hyponyms					
	Car	Concept	Auto									
Data Assets		 4-wheeled motor vehicle; usually propelled by an internal combustion engine; "ne needs a car to get to work" 	Automobile		Crewbard							
Reports			Boat	a dish (often boat-shaped) for serving gravy or sauce	Gravy boat Gravy holder							
& Collaboration		and the second sec	C DUA		Sauceboat							
			Cable car									
					Auto							
				4-wheeled motor vehicle, usually propelled by an internal combustion engine. "he needs a car to get to work"	Automobile							
					Machine							
				a conveyance for naneencers or freinit) on a cable calway. "They look a nable car to the top of the mountain"	Cable car							
		(Synonyms) Auto-Automobile Machine Motorcar	🤝 Car	a conveyance of personnel of a regist of a convertence, any non a cace on to the op of the incommit	Dalear							
		(Defined Architecture Products) Auto		a wheeled vehicle adapted to the rails of railroad; "three cars had jumped the rails"	Raiway car							
		2. a wheeled vehicle adapted to the rails of railroad; "three cars had jumped the rails"		car suspended from an airship and carrying personnel and cargo and power plant	Gondola							
		optionyms) nancar, nanway car 2 a conveyance for protograms or freight on a cable relieve: "they took a cable car to the top of the mountain"		where passengers ride up and down; "the car was on the top floor"	Elevator car							
		(Synonyms) Cable car	Sevator car	where passengers ride up and down: "the car was on the top floor"	Car							
		4. car suspended from an airship and carrying personnel and cargo and power plant		a low flat-bottomed freight car with fixed sides but no roof	Gondola car							
🐈 Favorites		5 where nascenners ride up and down: "the car was on the ton floor"	Iondola 🎯	car suspended from an airship and carrying personnel and cargo and power plant	Car							
10 History		(Synonyms) Elevator car		iong narrow flat-bottomed boat propelled by sculling; traditionally used on canals of Verice	Boat							
		6. where passengers ride up and down; "the car was on the top floor"	Gondola car									

2.8.16.4. Data Domain Map

MEGA

From now, it is possible to define Data Domain Map and describe its Data Domains and their Data. This map is available at the conceptual Level.

On each Data Domain (Business Information Area) it is possible to define which information are used and if this Domain is the functional Owner of this Data.

A new tool is provided to define easy Data Domain map and its Domains by Drag and Drop Domains from right List or Right Tree to the left Data Domain Map tree.

Business Dictionary Hierarchy Business Dictionaries Business Information Map Business	ness Information Area Concept	
• Select a Business Information Map to display and to define its components. Select one or more business information domains from the list or tree on the right to add them by Drag and To add a concept to a business information Area, select the concept in the right tree and drag it to the Busin	l Drop to the tree on the left as a component of the map or as a component of a ness Information folder of Area in the left tree.	domain.
⊕ New 📀 🎝 🗄 ∽ 🖹 :	List Tree	
Local name † D		T
Media Library Business Informati	Local name Comment	Owner Container
Predictive and Preventative Maint	C Activities	💊 Vacation Booking
Retail Corp Information Map	Aircraft Maintenance	🛍 MEGA Airport
Smart Airport Business Infor	Airport Facilities Maintenance	🖬 MEGA Airport
	🗌 🧧 Artistic Work	🛍 Publishing Secteur Vo
K C Page 1 of 1 > >> E Show 50 C elements Displaying 1 - 4 of 4 K	Booking a travel package	💊 Vacation Booking
Smart Airport Business Information B	Booking Definition and Event	🛍 Vacation Booking
🖬 🧧 Cargo	Booking State	💊 Vacation Booking
🖬 🧧 Flight Ops 🖻	Business Information Area-1	월 Bank
Ground Ops	Business Information Area-2	
🛛 🗧 Maintenance 🗅	Business Process Integration	🛯 MEGA Airport
🛛 🧧 Marketing & Customer Care	Calendar	Common
D 🧧 Network and Fleet Planning	Calendar period	Linner ontology
🛛 🧧 Product		lemente Displaying 1 12 -6 51
🖬 🦰 Revenue Management & Pricing	«« « Page 1 or5 > » 😥 Show 13 🗘	elements Displaying 1 - 13 of 54

The right hierarchy view enables to navigates on Data Domains Area and concepts from Business dictionaries and drag and drop them the Data Map or Data Domain in the left tree.

MEGA		
Business Dictionary Hierarchy Business Dictionaries Business Information Map Busines	5 Informatio	n Area Concept
Select a Business Information Map to display and to define its components. Select one or more business information domains from the list or tree on the right to add them by Drag and Dro To add a concept to a business information Area, select the concept in the right tree and drag it to the Business	p to the tree o Information fo	on the left as a component of the map or as a component of a domain. older of Area in the left tree.
• New • ● ▲	List	Tree
Local name † De	0	Support B
Media Library Business Informati		Concept
Predictive and Preventative Maint		Address
Retail Corp Information Map		Aircraft Diagnostic Data View
Smart Airport Business Infor		Aircraft
$<\!\!< Page 1 of 1 > >\!\!> \not C Show 50 \ \Diamond elements Displaying 1 - 4 of 4$		Airline
Smart Airport Business Information		Asset
Cargo		 City
Be Business Information		 Contact
Aircraft		Contract
🛛 📙 Flight Ops 🖻		 Department
Ground Ops		Departure Airport
🖸 🧧 Maintenance 🖻		 Destination Airport
Marketing & Customer Care		Employee ID
		Employee

2.8.16.5. **Data Usage**

a) Used Data in application

An Application Owner, or an Application Portfolio Manager can connect Data on their applications.

In the Data group from an application they can specify the set of Data that are used by the Application. All these data can be already defined by Data Asset Manager in the data inventory.

HOPEX IT Portfolio Management			0	Q - ~						Autosav	ed 🎙	• •	?	₽
IT Portfolio Management / Applic	ations / Rent Car Management Applicatio							3	0 5-1	AV N			۵	₽
**	🛃 My Applications 👻 🛞 New 🗄	Re	nt	Car Management Appli	cation									×
🚰 Home	Local name 1	4		Characteristics 🗸										
🕐 Dashboard	🖸 🛃 Rent Car Management Application	Res	spor	nsibilities										×
📋 To-Do List		Tec	chno	logies										×
Se Environment		Exc	chan	iged Flows										~
📋 IT Portfolio Management 👻		Det	ta											^
		e) N	ew										т
🛃 Software Installations		D		Local name 1	Cr	eale	Read	Update	Delete	Data Access		Categories		
Technologies		0	ł.	Customer						CRUD	Golder	Data		
â Inventory		0	ł.	Direct Customer						CRUD				
O Evaluation			3	Insurance						CRUD	Golder	Data		
Data Assets		0	ing.	Van						CRUD				
Reports			ŝ	C Page 1 of 1	112	» I s	C Show	50 0	elements			Displayin	01-50	of 5
A Collaboration			Gold Gold	den Source den Copy										
Favorites		Dat	ta Su	ubjects' Rights & Notice Manaç	gement									~
this tory	SS S Page 1 Of 1 > >>	Ris	iks											~

The used Data list reminds on each item, its data categories, column in read only mode.

The application can be declared as **Golden Source** (or single version of truth) of its data. This means the reference to which data users can turn when they want to ensure that they have the correct version of a piece of information.

The application can be considered as **Golden Copy** of its Data. The 'golden copy' is the official, master version of a record. There can only be one golden copy of each record. A golden copy exists from the point of creation of a record not just once the record is no longer used. It is important to remember that the golden copy of a record exists for all stages of its development.

b) Used Data in exchanged Flows

Data are exchanged between applications through sent and received flows and their contents.



Application Owner will be able to use defined Data from Data Dictionaries Business Dictionaries and describe the details of "Content" in flow between applications.

Customer					
ous control					>
Characteristics - Characteristics	s 🗸				
ocal name					
Customer					
wner					
v >					
escription					
escription					
Default font	$I \underline{U} \mid T^{*} T^{*}$	I V I	× ≞ ±		
Data Used					~
	o				-
🕙 New 🛯 🕞 Reorganize 📮	 Image: Image: Ima				τ
New	Osta Categories	Lower Mu	I. Upper Multip		τ
New Reorganize	🗿 🖹 X Data Categories	Lower Mu	I_ Upper Multip	1_	٣
New Reorganize Cocal name 1 Address Company	🕑 🖹 🗙	Lower Mu]]	IL_ Upper Multip 1 1	-	×
New Reorganize Cocal name 1 Address Company	🗿 🖹 X	Lower Mu	IIUpper Multip 1 1	1_	Ξ.
New Reorganize Company Customer	O Data Categories	Lower Mu]]	IUpper Multip 1 1 1	1_	T
New Reorganize Corpany Customer G	O Data Categories	Lower Me	I_ Upper Multip 1 1 1		Ţ
New Reorganize Cocai name 1 Address Company Customer G	O E Z Data Categories	Lower Mu	I. Upper Multip 1 1 1		(*)
New Reorganize Cocol name 1 Address Company Customer G	O E Data Categories iolden Data > > O C Show	Lower Mu 1 1 1 50 🗘	I. Upper Multip 1 1 1 elements	Die	T ;playing 1 - 3 of 3
New Reorganize Local name 1 Address Company Customer G Customer G	Image: Second	Lower Mu 1 1 1 50 🗘	I. Upper Multip 1 1 1 elements	Die	T :playing 1 - 3 of 3
New Reorganize Local name 1 Address Company Customer G	Image: Soliden Data Image: Soliden Data Image: Soliden Data	Lower Mu 1 1 1 50	I. Upper Multip 1 1 1 elements	Die	T playing 1 - 3 of 3
New Reorganize Local name 1 Address Company Customer G	Image: Solid on Data Image: Solid on Data Image: Solid on Data Image: Solid on Data	Lower Mu 1 1 1 50 \$	I. Upper Multip 1 1 1 elements	Die	T playing 1 - 3 of 3

c) Data Quality

MEGA

To follow-up the Data Quality, it is possible to evaluation each data on data quality dimensions: Completeness, Uniqueness, Timeliness, Accuracy, Consistency and Validity

HOPEX IT Portfolio Management		• Q ·	Autosaved 🔖 👩 🖓 🕞
-		Create new evaluation - Direct answers	
		Completeness: Are all data sets and data items recorded?	
~	Hierarchy View List	Low	*
- Home	🗖 🛄 🛛 Rent Car Management	Uniqueness: Is there a single view of the data set?	
🔮 Dashboard	Agency Customer	Medium V	
📋 To-Do List	🛛 🗐 🛛 Boat	Timeliness: Is the information available at the right time?	
🔮 Environment	🖬 🗐 Car	Medium 🗸	
📋 IT Portfolio Management	Costomer	Accuracy: Are the date reliable and accurate?	
📕 Data Aszets	Direct Customer	High 🗸	
😰 Reports	Elevator car	Consistency: Can we match the data set across data stores?	
A Collaboration	🖬 🗐 Gondola	Validity: Does the data match the rules?	
	🛛 🗐 Insurance	High ~	
	D Truck	Description	
	🛛 🗐 🛛 Van		
	🛛 🏦 🛛 Reschedule An Existing Rese		
	🗖 🛅 Search Client		
	Search Products to Order		
	Standard	Data Quality Remediation	^
	Ca Technology Standard Reposi	Remediation Plan	
	🗖 🛅 Track Internet Orders		<u> </u>
🐈 Favorites	D 🕼 Trip Booking Processing		
🐞 History	🖬 🛅 Trip Peckage n	(Previous (Next) OK (Cancel

lierarchy View List	Cust	omer							
🗈 🗖 Rent Car Management		Assessment 🛩							
Agency Customer	+ Ev	aluate 🗙 Remove							
Boat	o	Assessment Node 1	Evaluation Date	Completeness	Uniqueness	Tincliness	Validity	Accuracy	Consistenc
Car Car	0 2	1 Customer (Class)	1/23/2020	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low
Customer	0 2	🙎 Customer (Class)	2/25/2020	Very Low	Low	Very Low	Low	Very Low	Low
Direct Customer	0 2	1 Customer (Class)	2/25/2020	Low	Medium	Medium	High	High	Medium.
Elevator car									
Gondola Gondola									
OE Van									

2.8.16.6. Application Impact

The application Impact report is available from an application and focuses on its Data used. From the context of this application, it summarizes information on used data regarding their CRUD, their Data Owner, their categories, their quality and their source of truth or Golden Source.

In the case of the application retirement for example, this report will help to manage the impact of the applications on their data that are using.

The report is presented as a dashboard with six tiles that resumes information. To see the detail, the user can click on each tile.

a) Data

MEGA

Display the number and the details of Data that are defined in the store of the application, their CRUD, categories, and owners.

IT Portfolio Management / Appli	ications / Rent Car Management Applicatio				0 6-10-	11 D	- 🗉 🗅
«	🛃 All Applications 👻 🔓 🗸	13	Rent Car Managemen	t Application			
Home	Local name 1	Current State	🛃 Reporting - Applie	cation Impact 👻			
Dashboard	🗆 🛃 Regional Sales		Data	hanned Data Golden	ources Golden Data Sens	sitive Data 1	Data Ocality
To-Do List	🗆 🖬 Relationship Selling	= Production	5 -	± 6 ∦≣	1 🖬 4 🔒	1 (2	ž
Environment	🗆 🤮 Remote Handling	Retired					
🛛 IT Portfolio Management 🐱	🖾 🛃 Rent Car Management Application	Production	1. Details of the App	olication Data			
P Applications	🗆 🧃 Replication System		Data used by the app	Data Category	Data Store	CRUD	Data Owner
Software Installations	🗆 🧧 Retail Club Core		Ecar		Rent Car Management Application	CRD	. R Richard
Technologies	🗆 🛃 Retail Club for Boutique		E Customer	Colden Data Sensitive	Rent Car Management Application	CRU	. Q Arne
Inventory	🗆 📓 Retail Club for Call Center		Direct Customer		Rent Car Management Application	RU	. 9 Theo
	🖸 🧧 Retail Offline Ordering - EMT		E insurance E van	- 🤜 Golden Data	Rent Car Management Application	CRU	• Bil
U Evaluation	🗆 🛃 Retail System						
Data Assets	🗆 🛃 Risk Management	⇒ Production					
Reports		0.004505050	_				
Collaboration							
	Hosiyn						
	🗋 🚅 Ruby						

b) Exchanged Data

Display the number and the details of Data that are exchanged in the application flows, their categories, owners and Application Sender and Receiver of flows.

PCO mobile							
Reporting -	Application Impact	~					
	[]						
Data	Exchanged Data	Golden Sources	Golden Data	Sensitive Data	Data Quality		
4	2 2	1	3	ft 1			
0					_		
1. Details of E	xchanged Data						0
1. Details of E	xchanged Data	od by the application					c
 Details of E Data contained Content 	xchanged Data in the flows exchang Data	ed by the application Data Category	Data	Owner	Receiver	Sender	0
I. Details of E Data contained Content	in the flows exchange Data	ed by the application Data Category	Data	Owner	Receiver	Sender	C

c) Golden Source

MEGA

Display all Data for which the application is Golden Source.

HOPEX IT Portfolio Management			• Q ~						Autose	ved 🐂	•	1	G
IT Portfolio Management / Appli	cations / R	ent Car Management Applicatio					0	€1~ I>~	\mathcal{A}_{i}^{k}	• •		۵	E
~	all /	Applications 🗸 🐌 🔂 🗸 🎚	a i	Rent Car Manage	ement Applicati	on							
🚰 Home	0	Local nome 🕇	Current State	Reporting - /	Application Impact	~							
Dashboard	•	Regional Sales		Data	Exchanged Data	Golden Sources	Golden I	lata Secu	utive Data	Data	Quality		
To-Do List	0 4	Relationship Selling	- Production	5	⇒ 6	1		4	1	Q	- Security		
Environment	0 4	Remote Handling	 Retired 		-								
IT Portfolio Management 👻	24	Bent Car Management Application	Production	□ 1. Details of G	olden Sources							0	
P Applications	04	Replication System		Data Stores of A Data Store	Application that are	Golden Sources and t	heir Data CRUD	Description	Data Cat	egory	Data Ow	her	
Software Installations	04	Retail Club Core		Juli Juli		⊟ csr	CRD		• 🕲 Go	Iden Data	. Q Ric	and	
Technologies	0.4	Retail Club for Boutique				E Customer	CRU		: 😫 Go : 😫 Se	iden Data tsibive	. 9.40	e .	
÷	0.4	Retail Club for Call Center		Rent Car Manag	gement Application	Direct Customer	RU				. Q Th	0	
E inventory		Datail Office Outaring - D.IT				Insurance	CRU		• 🔍 Go	iden Data	. O BI		
O Evaluation	-	neum ommer ordering - EMT		-		Ed Ven	040					er.	
Data Assets	0 4	Retail System											
	0.4	Disk bissesses	Construction										

d) Golden Data

Display all Data that are specified *Golden and Data reference* their owners and if these data are define in the application store or used in application flows.

HOPEX IT Portfolio Management		• Q ~					Autosav	ed 🖈 🚯	0	3
IT Portfolio Management / Applic	ations / Rent Car Management Applicatio					0 6-	10° - N		0	剥
«	🛃 All Applications 👻 👆 🔂 🖓 🗸	B (I	Rent Car Manage	ement Applica	tion					×
🔮 Home	O Local name †	Current State	a Reporting -	Application Impa	ct 🛩					
😨 Dashboard	🗆 🛃 Regional Sales		Data	Exchanged Date	Coldan Sourcar	Coldan Data	Sancitiva Data	Data Quality		
📋 To-Do List	🗌 🍓 Relationship Selling	Production	5	⇒ 6		₩ 4	A 1			
Environment	🔲 🛃 Remote Handling	 Retired 								
📋 IT Portfolio Management 🗸	😂 🛃 Bent Car Management Application	Production	🗈 1. Golden Dat	a details report					C	1
P Applications	🗆 🛃 Replication System		Application dat	a classified as 'G	olden Data'	Fuchanas Data	Data Owner	Functional Owner		
Software Installations	🗇 🛃 Retail Club Core		Golden Data	Description	Application Data X	Exchange Data X	• R Richard	Functional Owner		
g outware instantions	Retail Club for Politique		Contract			x	• ONDURY Samir			
Technologies			Customer		x	×	. Q Anne			
Inventory	Retail Club for Call Center		Insurance		x	x	• 0 BI			
O Evaluation	🗌 🛃 Retail Offline Ordering - EMT									
📕 Data Assets	🔲 🛃 Retail System									
Banarte	🗌 🛃 Risk Management	Production								

e) Sensitive Data

Display all Data that are specified *Sensitive*, their owners and if these data are define in the application store or used in application flows.

HOPEX IT Portfolio Management			8 Q -					Autosave	a 🖈 🕓	0 🗗
IT Portfolio Management / Appli	cations	/ Rent Car Management Applicatio					0 6-10	×	. · .	0 B
«	-	All Applications 👻 👗 🔂 🗸 🚦	i I	Rent Car Managem	ent Applicatio	n				×
🔮 Home	o	Local name †	Current State	Reporting - Ap	plication Impact	*				
🔮 Dashboard		Regional Sales		Data	Ferbanned Data	Goldan Sourcar	Golden Date	Sepritive Data	Data Ossality	
📋 To-Do List		Relationship Selling	⇔ Production	5	₹ 6	1	₩ 4	A 1		
Senvironment	0	Remote Handling	 Retired 							
🏮 IT Portfolio Management 👻		Rent Car Management Application	Production	1. Details of Sent	sitive Data					0 1
P Applications		Beplication System		Application data c	lassified as 'Sens	itive'	Exchange Data	Data Owner	Eurotional Owner	
🖉 Software Installations	0	Retail Club Core		Customer	Description	X	x	. Q Anne	Puncuonar Owner	
Technologies		Retail Club for Boutique								
Inventory	0	Retail Club for Call Center		1						
O Evaluation		Retail Offline Ordering - EMT								
	0	Retail System								

f) Data Quality

Display the assessment of Data Quality dimensions of Data used by the application. The radar char visualizes the average values of the last assessment of all data that are used by the application.

HOPEX IT Portfolio Management		• q •								Autoseved	× 0	000
T Portfolio Management / Applid	sitions / Rent Car Management Applicatio								0 4-1	→~ <u>^*</u> [0
«	al All Applications 👻	Ŧ	Rent Car Managem	ent Application							372	
🔮 Home	D Local same †	Current State	al Reporting - Ap	plication Impact 🐱								
Tashboard	🗆 🛃 RCO - Retail Legacy ERP			Parkenned Date	Califar Canada	Californ Data	Consider	- Data Di	to Courier			
📋 To-Do List	🗆 📓 Recreation & Travel System		5	≓ 6	1	≝ 4	0	1 0				
S Environment	🖸 🎽 Recreation & Travel System v2.0											
🔋 IT Portfolio Management 👻	🖸 🛃 Regional Sales		II 1. Details of Data	Quality								0 1
Applications	🖸 🧧 Relationship Selling	Production	Average measure	of Data Quality of Dat	ta used in Applicat	ion and exchang	e Data with oth	er applications as	cording to the f	ollowing dimensions.	Only the last eval	uation of
Software installations	🖸 🛃 Remote Handling	* Retred	Completeness	Uni	queness	Timeline	55	Accuracy	Cons	istency	Validity	
Technologies	Art Car Management Application	· Production	Medium		0#	Low		Medium	Me	dum	Medium	
≜ Inventory	C a Replication System			Completeness	Validaty							
	🗆 🛃 Retall Club Core			200								
C Evaluation	🗆 📓 Retai Club for Soutique		1 /	100								
Data Assets	🖸 📓 Retail Club for Call Center		Consistent	0.00	+	dizes B	ent Car Managem	ent Appli.				
Reports	🗆 🛃 Retail Offine Ordering - EMT											
Collaboration	D al Relati Surtem											
		C. Booduring		Accuracy	Casponess							
		Protación										
	Risk Management		Below are present	ed the details of the l	ast evaluations of	Data.						
	🗆 🛃 Roslyn		Data	Completeness	Uniqueness	Timeliness	Accuracy	Consistency	Validity	Data Owner	Data Catego	ry
	🖸 🛃 Ruby		E Car	Medium	Low	Medium	High	Hgt	High	. Q Richard	• Solden	Dota
	🖸 🛃 SAGE	· Production	E Company									
			Contract							- O NOLRY Same	• Colden	Data
	🗆 💕 Sales Enterprise		Customer	Wery Low	Law	VeryLow	Very Low	Los		. Q Arra	- Golden	Data
	Sales Force Automation		Direct Customer							. Q Theo		
	🖸 🛃 Salesforce	Retirement		Hat	Medium	Law	Hat	Han	Very High	. 0 BI	• Solden	Data
+ Favorites	A		_ Even	14p	Medum	Law		Medum	1 kah	. Q Asher		
10 History	« «) O Show 50 \$ -	e.									

2.8.16.7. Data flows graph Report

From a conceptual data, it is possible to display where the corresponding data is stored, and which flows exchanged between applications are using it.

) M E G A



2.8.16.8. Data Domains Map reports

a) Tree map Report

A new report Data Domain Tree map is available in the "Reporting" properties page of Business Information Map object.

Filters can be used to display the report according the number of components, number of Golden or Sensitive Data and number of owned Functionally data in Data Domains

□ 1. Data Domain Tree Map								0
This report shows the hierarch number of data declared as se	ny of the data domain n nsitive.	nap. Filt	ters can be used	l to display the number	of components in each domai	in, the number of re	eference data and th	ie
Number of displayed levels 2	 Display criterio 	n Nun	nber of componer	nts 🔻				
		Nun	nber of componer	siness Infor	mation			
Cargo 5 %	Pro 5 Sales	Nun du Nun Nun	nber Functional O nber Golden Data nber Sensitive Da	ta Network and Flee 5 %	Flight Ops 5 %	Marketing a	& Customer Care 5 %	
Maintenance Airport Facilities Maintenance 33 %	Sales Channel Management 20 %	Reser	vation Ticket 20 %	Revenue Manage	Support IT Services 14 %	Catering Procurement 14 %	Business Process Integration 14 %	
Aircraft Maintenance	Direct Sales Cha	nnel		5 %	Human Resources 14 %			
33 %	20 %		Inventory Managem					
Ground Ops Vehicle Maintenance 33 %	Sales Agent Cha 20 %	nnel	20 %	Ground Ops 5 %	Finance 14 %	Procurement 14 %	Data Management & Analysis 14 %	



b) Data Map Breakdown report

A new breakdown report is provided for Data Domain Map description with criteria that can be used to display Data with Categories sensitive and Golden or the Functional Domain Owner.

per of displayed levels All V	Unfold all items				Golden Data Golden Data Golde
Smart Airport Business Information					
Cargo	E Flight	Dps		G	iround Ops
	□ 1 item(: ● Flight	;)			
Maintenance					Marketing & Customer Care
Aircraft Maintenance	Airport Facilities I	laintenance	Ground Ops Vehicle Maintenar	ice	
2 item(s) Aircraft Asset					
Network and Fleet Planning		Product		Revenue Manag	jement & Pricing
Sales					

2.8.16.9. Data Category Dendrogram report

A new Dendrogram report is provided to display where some categorized data are used and consumed. The input parameter of the report can one or more Data Categories. The objective of this report is to help users to locate quickly where data of these categories are used for example in the applications inventory.

Ом	EGA				
i Select	Data Categories to display its dat	a.			
× Health	× Sensitive				
Refresh the	report				
				_	
	Categories 🚞	Sensitive 🍟	Appolo Health 🛃	Medic	ian
		Health 🍅	Appolo Health 🛃	Medic	al History
			_		auon

2.8.16.10. Data Category of Portfolio Dendrogram report A new Dendrogram report is provided to display where some categorized data are used and consumed by Application of an Application Portfolio.

The input parameter of the report is an Applications portfolio. Only Data that are categorized are displayed in the report. They are grouped per data category and applications that use this Data.

Ξ Ρ	ortfolios / All Application Portfolios / Portfolio-2		ጛ ∽\⊳~	A 🖵 🗸	P	చి	
~	🔒 My Application Portfolios 👻 🚦	Health Application Portfolio					×
»	Local name 1	😩 Reporting - Data Category of Portfolio Dendrogram 👻					
	🗹 🚊 Health Application Portfolio	I. Portfolio Data Category Dendrogram				C	:
4							
L.		Sensitive 🍅 — Appolo Health 🛃		Medication	0	2	
A		Health Application Portfolio 🔓 🛛 🛛 Golden Data 🍅 Appolo Health 🛃		Medical History			
•		Healthcare (External) 🛃		Physician			
8 .2		Health 🍘 Appolo Health 🛃		Medical History			
4							
٢							

2.8.16.11. Data Quality Assessment report

A new report is provided to display progression of data quality assessment of Data. It is available directly from Direct Data Quality Assessment tool:



2.9.. HOPEX Information Architecture

To address Data Governance dimension, the HOPEX Information Architecture Product, provides solution to data architects and Business Operational to improve Data Design, Data Quality and Data usage.

2.9.1. Desktop Improvement

Several new features are implemented for this version. Therefore, a new desktop has been set up for this purpose. The focus is on the most important features that contribute to the Data Governance processes. The desktop and tiles are also updated according to the new style sheet.



2.9.2. Business Roles

New roles are provided to define a person responsibility on Data Asset (Conceptual, Logical or Physical). Here the following list of roles:

Business Roles	Definitions
Data Designer	The Data Designer is responsible for defining, describing and classifying information system data. It enriches and maintains the dictionary and reference data models. It accompanies the definition of the business needs concerning the description and the use of the data.
Data Owner	A Data Owner is the authority to decide on the access to, and usage of, the data. The data owner could be the original producer of the data, one of its consumers, or a third party.
Data Steward	The Data Steward is the lead manager in a data governance project. He plays a key role in its realization. He has the knowledge of the data and their metadata. He appropriates them and works with the business teams to define the objectives of the data governance project.
Data Scientist	The Data Scientist is responsible for bringing together the data designer (business and logical data) and the managers of the processes who use this data.



Data Quality	The Data Quality Manager is responsible for the "quality" of the							
	tata. It must ensure the relevance and usefulness of a given data							
manager	data. It must ensure the relevance and userulness of a given data							
	for all data of the company. It must therefore set up procedures							
	for controlling incoming data but also carry out a check of all the							
	data of the organization upon arrival.							
Data Chief Officer	The Chief Data Officer (CDO) is a Data Manager, who is in							
	charge of the entire Data Strategy of the company. It is he who							
	will optimize the collection of data, their storage, the reliability							
	and quality of the latter and optimize their valuation.							
Database	Database administrators (DBAs) use specialized software to							
Administrator	store and organize data. The role may include capacity planning,							
	installation, configuration, database design, migration,							
	performance monitoring, security, troubleshooting, as well as							
	backup and data recovery.							
Data Engineer	The Data Engineer defines, develops, implements and maintains							
-	the appropriate tools and infrastructures for data analysis by							
	Data Scientist teams. He is careful to create a solution allowing							
	the processing of large volumes of data while guaranteeing their							
	security.							

The Data scientist and Data Designer Roles were already provided in the previous version.

All Data Roles are used to share information of Data Creation, Design, Update, and their validation. This Design progression can be conduct by using a Workflow Data Scientist profile is renamed to Data Contributor.

2.9.3. Business Glossary

It gives access to the definition and sharing of business information, their definitions, and their relationship

2.9.3.1.Browse Term Definition

The "**Browse term definition**" is a new tool to enable Users to define quickly and easily definitions of a Term and to connect picture to definition to show how it looks.

• Select a term to display its description.					
Term: Vehicule	~ >	New			
Term Language: 🗱 English		✓ Owner Business Dictionary:	Rent Car Business Dictionary		\sim >
Definition • New • 4 4 1 1 1			т	Picture Fulfillments	Values Domain
Definition	Designation	Synonym Data Categorie	s Owner Busines		X T
 Vehicle is defined as any car, van or truck ren 	Vehicule		🗣 Rent Car B	Name	
				 Aston Martin 	
				 Maserati Alfieri 	
				 Audi e-tron Sportback concept 	ot
\ll \langle Page 1 of 1 \rangle \gg \mathcal{Z} Show	5 🗘 elements		Displaying 1 - 1 of 1	<< < Page 1 of 1	> >> 2 Show 50 <
Documents					^
Business Documents Reports					
					T
		Local name 1			M-Rel Creation
Vehicule description					5/27/2020 5:40:25 PM

- Button to upload and removed picture are available directly from toolbar of definition list view.
- A new list of value domain is available. It allows to add individual objects as sample for each selected definition (concept, ...). This helps to illustrate Term definition by generating samples in the Business Glossary.

2.9.3.2.Data Map Domain

MEGA

The look of Business Information Map, Data Map and Physical Data Map has been updated.


In Business Information Map Diagram, the external area component is hidden by default in the diagram toolbar. This is made to simplify the usage of internal information Area component in the map.

2.9.4. Data Architecture

Data Architecture provides access to design and data modeling at the logical and physical level. It introduces the definition and sharing of information, their definitions, and their relationship.



2.9.4.1.Data Categories

MEGA

Data categories are provided to classify Data Asset (Concept, Class, Table...). This is a connection between HOPEX Privacy Management and HOPOX Information Architecture productions.

The user can describe Data categories and subcategories.

HOPEX Information Architecture	ŧ I	Select an object type 💉	Find object 👂	Q •		₩ 0	ĵ ⊡
Data Architecture / Data Categories / 0	Contac	t,			C h×l∂×	~	3 🗟
«		List Hierarchy View			Contact		×
🐇 Home	•	New 🙁 🖹 🗶	1 row(s) sele	ected out of 7 T	😝 🕴 Information Entity 🗸		
🕐 Dashboard		Data Category Name 🕇	Retention Period	Sensitive Data	Business Information	Data Physical Data	
📋 To-Do List		Biometric	1 year				٣
Se Environment		Contact	1 year		O Short Name †	Comment	Owner
📕 Business Glossary	D	Cookies and System Logs	2 months	0	Address		🕅 Airline 1
😃 Data Architecture 🗸 🗸	0	Financial	20 years		Contact	Donec id lacus rutrum eni	🖾 Commi
🗑 Logical Data Assets	0	Health	1 year		D Phone		🕅 Airline :
🔛 Physical Data Assets	0	Judicial	10 years				
🖻 Data Categories	0	Sensitive	1 year				
💥 Tools							
🜔 Data Usage							
TP Policies and Rules							
Operational Assurance							
📝 Reports							
🚖 Favorites	-	·	-				1
W History	*	< Page 1 of 1 >	>> C Show	50 C elements	s ≪ 🔇 Page 1 of1	> > 2 Show 50 0	elements

Golden Data is a new Data Category provided in the standard solution Pack to classify reference Data.

2.9.4.2.Data Asset Workflow

HOPEX Information Architecture includes the HOPEX workflow engine, allowing users to define their own workflows, follow predefined Design and validation steps and automatically notify the different stakeholders.

A standard workflow has been developed to manage the progression of a Design activity of a Data Asset from its creation to the completion of its validation. The workflow definition is provided by default for Data Lineage, Information Area, Information Map and for all their layer Business, logical and Physical. The workflow can be extended for other kind of Information Asset.

By default, the instantiation of this workflow is optional and not automatic. The user can select and decide on which object he wishes to create a workflow instance.



The instantiation of the workflow can be done by the assigned Data Designer or Data Owner of the object. In addition, all others assigned persons as Data scientist, Data Steward, Data quality Manager and Data Chef Officer can use "Data Contributor" profile to connect to HOPEX Information and trigger the validations steps.

For each triggered transition, a notification or email is sent to assigned person on the workflow subject.

2.9.4.3.Data Usage

a) Data Usage in the context of System

The Data Usage description has been extended to Scenario of Logical Application System Flows, Scenario of Application System Flows, Scenario of Application Flows, Scenario of IT Service Flows and Scenario of Micro Service Flows.

The IA Functional Administrator can all these software scenarios and the Data Architect will be able to define where some Data Area are referenced.



b) HOPEX BPA Integration

The IA Functional Administrator can also define an inventory of Value Streams, Organizational Processes or System Processes within HOPEX Information Architecture. The Data Architect can describe which processes Data store are using and referencing Information Area.



MEGA

HOPEX Information Architecture		alv Littlert 🗣	• 8 ? 🗗
Data Usage / Data Used by Proce	ssus / Organizational Processes / Account Management / Booking a	ravel package C 6 v l Av 🗸 🖓 v	
«	🛞 New 🙆 😓 🔂 🛩 🖹 🕴 Account M	lanagement	×
🛃 Home	🖸 Local name 1 C. 👼 🗌 Data	Store 🗸	
😨 Dashboard	Account Management	🖉 Connect 📑 Inherited 😕 Excluded 📮 🔞 🖹 🛿 🚦	т
📋 To-Do List	🗆 📾 Accounts payable	Short Name Inherited Object Buildin	ig Block in Role Class
e Environment	Advanced Cancel Package (0	travel package 1. AS-IS::1. Process BPM 0 🙆 Booki	ing a travel pack 🗖 Ad
📕 Business Glossary	Advise member		
🙄 Data Architecture	Applicant Screening		
🔘 Data Usage 🗸 🗸	Application Interview		
🕑 Data Used by Systems	Bank Customer Payments		
Data Used by Processus	🖸 🎫 Boutique Process		
TP Policies and Rules	🔲 🎫 Breakdown Analysis		
Operational Assurance	Cancel Package Process o		
📝 Reports	Car Movement		

The concept, concept view in Business Information Area can be used in the Value Stream Data Store description.

The Organizational process describes stores by using a Business Information Area or Data Area of Class, Data view.

The System process describe Stores by using the logical Data Area or physical Data Area.

2.9.5. Policies and Rules

Policies and rules allow the company to establish, report and communicate basic requirements for overall structure, format, identity, ownership, use and access for all company information.

They help with standards compliance, risk reduction, and are delivered and implemented through the establishment of business rules and applications.

Basel Committee on Banking Supervision (BCBS239)

is and Hules. / Business Policies. / Regulatory Frameworks - Nangation Tree. / Risk Data aggregation		0 h-le- x 🖵 - 🖪 💩					
Regulatory Premework							
(BCBS239) Basel Committee on Banking Supervision							
	Actions	Connest					
Iscaszal Bacel Committee on Banking Supervision	17	Principles for effective risk data aggregation and risk reporting					
Coveranching governance and infrastructure	17 16 18	26. A bank should have in place a strong governance framework, risk data architecture and IT infrastructure. These are precondit ownership of implementing all the risk data aggregation and risk reporting principles and the strategy to meet them within a time					
Principal 1 Governance: A banks risk data aggregation capabilities and risk reporting practices sho	19 1	Governance - A bank's risk data aggregation capabilities and risk reporting practices should be subject to strong governance					
0 🥵 27 A banks board and senior management should promote the identification assessment and	***	A bank's board and senior management should promote the identification, assessment and management of data quality risks as pa.					
28 A banks board and senior management should review and approve the banks group risk dat	** * ii	A bank's board and senior management should review and approve the bank's group risk data aggregation and risk reporting f.					
🛢 🐘 29 A banks risk oata aggregation capabilities and risk reporting practices should be	• < • 1	A paint's risk data apprepation capabilities and risk reporting practices should be: (a) Fully obcumented and subject to high standards of valication. This validation should be independent and review the bank's: o					
C Defnition							
C Policy Constraint	***						
C implementation	<< < 8 < < €						
D 🥵 30 A banks serior management should be fully aware of and understand the limitations that pr	***8	A bank's senior management should be fully aware of and understand the limitations that prevent full risk data aggregation, in term					
🗴 🥵 31 A banks board is responsible for determining its own risk reporting requirements and should.	** # B	A bank's board is responsible for determining its own risk reporting requirements and should be aware of limitations that prevent full.					
🛚 🖺 – Principle 2 Data architecture and iT infrastructure. A bank should design build and maintain data ar	17 H H	Data architecture and IT infrastructure – A bank should design, build and maintain data architecture and IT infrastructure which full.					
In The line cards appropriate capacities	1.4 8	35. Some smulti devolgs over manner strengt mill attes appreciation canaditizet in to ensure that of is strengt and transfer and the strengt strengt and transfer and the appreciation executions is interesting with meet moving specification). Complete can the these interprets strengt and a test be experied and them the transfer store apprecian capabilities music and eat the experience of another transfer store apprecian capabilities music and eat the experience of another transfer store apprecian capabilities music and eat the experience and them transfer store apprecian capabilities music and eat the experience and them transfer store apprecian the transfer appreciance and the experience and the experience and the experience of the storement.					
0 H = Disk reporting practices	19 5 8	81 Arrests concluse and limate data in a fearnation for affaction risk management					

Solvency II

HOP	EX antion Architecture ₽ Selectan object type ∨	Find object	Q v 🚺 😧 🕐 🗗
Ξ	Policies / Business Policies / Regulatory Frameworks - Navigation Tree / CHAPTER I.	Subject matter, sco	이 6~12~ 로 다 토 다 타
»	Regulatory Framework		× >
*		Actions	Comment
2	Solvency II] Taking-up and pursuit of the business of Insurance and Rein_	B	THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
			Having regard to the Treaty establishing the European Community, and in particular Article 47: Having regard to the proposal from the Commission, Having regard to the opinion of the European Economic and Social Committee (1),
			After consulting the Committee of the Regions, Acting in accordance with the procedure laid down in Article 251 of the Treaty (2),
			Whereas:
	TITLE I. GENERAL RULES ON THE TAKING-UP AND PURSUIT OF DIR_	1	
0	TITLE II. SPECIFIC PROVISIONS FOR INSURANCE AND REINSURAN		
0	CHAPTER I. Applicable law and conditions of direct insurance co	1	
Ŧ	SECTION 1. Applicable law	1	
۲	🖬 🌉 Article 178. Applicable Law	🔹 🤻 🔹 🌐	Any Member State not subject to the application of Regulation (EC) No 593/20
	SECTION 2. Compulsory insurance	P • •	
Ø	C 🚺 Article 179. Related obligations	* * *	 Non-life insurance undertakings may offer and conclude compulsory insurance Where a Member State imposes an obligation to take out insurance, an insurar
200			3. Where a Member State imposes compulsory insurance and the insurance unde
8.8	SECTION 3. General good	1	
•	🖬 💽 Article 180. General good	∢ ≪ ∢ @	Neither the Member State in which a risk is situated nor the Member State of $\ensuremath{t_{-}}$

Data Asset can be connected to constraining Polices of multiple regulatory and Directive.

HOPEX Information Architecture	🖨 Select an object type 👻	Find adjust: 🔺 🗛 🗸	14	× 0 0 🗗
Business Glossary / Business Infor	mation Assets / Concepts / Activity / Realizati	ion of[36 A bank shoul	0 5-10- 2	
«	My Concepts All Concepts		Activity	×
🕌 Home	🕑 New 🙁 🕹 😿 💷 🚦	1 row(s) selected out of 502	😑 🛛 Constraining Policies 👻	
🕐 Dashboard	Local name †	Definition Text	Owned Policy Constraint	
📋 To-Do List	acmm	Architecture Capability Maturity Model	⊕ New 📮 💿 🖹 🖬	т
🤵 Environment	🗆 🗢 ACSE	Association Control Service Element	Composite Realization Name	1
📕 Business Glossary 🗸 🗸	🗆 🗢 Activities	An activity is proposed by the Hotel or by the travel ag	- Realization of[36 A bank should aggregate risk data in a way	that is accurate and reliable) by
DI Browse Term Definitions	🖸 🗢 Activity	A task or collection of tasks that support the functio		
🛱 Business Information As	🗆 🗢 Actor	A person, organization, or system that has a role that		
🗐 Glossary Report	🗆 🗢 Ada	A high-level computer programming language develop		
💥 Tools	🗆 🗢 Adaptability	The ability of risk data aggregation capabilities to cha		
🙄 Data Architecture	🗆 👄 ADM	Architecture Development Method		
🔘 Data Usage	🗌 🥌 All media membership			

2.9.5.1.Business Rules

MEGA

A business rule defines or constrains some aspect of business and always resolves to either true or false. It specifically involves terms, facts and rules. Business rules are intended to assert business structure or to control or influence the behavior of the business. Business rules describe the operations, definitions and constraints that apply to an organization. Business rules can apply to people, processes, corporate behavior and computing systems in an organization, and are put in place to help the organization achieve its goals.

Information Architecture provides Business Rule and for more details the operational and System Rules. The Data Architect can connect them to policies for which they are defined, and on which processes they are implemented.





2.9.5.2. Business Policies

MEGA

On each Rule object, the user can connect the list of concerning Policies.

HOPE Inform	🗙 🛱 🛱 🛱	Select an object type 👻 : Find object 🕨 🔍		*	8 @ F
Ξ P	Iolicies / Business Rules / Best Pricing Rule		0 5-12-	N	
~	🖄 My Business Rules 🗴 All Busines	ess Rules	Best Pricing Rule		×
,,,		т	🛃 📔 Business Policies 👻		
	Local name 1	Comment	Based on Business Policy		
2	🔲 🟂 Authorization for Purchase Order		⊕ New ♂ Connect 🖽 📧		٣
	🔲 🛔 Bad Customer Experience Rule		Generic Local name †	Policy Code	Policy L
	🖸 📥 Best Pricing Rule	It is obligatory that theRental Pricecharged before any penalties be t	Maintain best service quality for rented cars		
	🔲 💲 Car Assignement Rule				
	🗇 💁 Car Assignment Conflict				
-	🔲 💈 Car Group Upgrade & Loyalty Rule				
0	🗋 🛔 Car Group Upgrade Rule		≪ < Page 1 of 1 > ≫ C Show	50 🗘 elements	Displaying 1 - 1 of 1
ata >	🔲 🟂 Car Ownership Transfer				
-	🔲 🛔 Car Ownership Transfer Car Rent				

2.9.6. Operational Assurance

Operational Assurance is a set of functionalities allowing to follow the quality of the data, their levels of conformity with respect to the directives and regulations to be respected.



2.9.6.1.Data Assurance Domain

MEGA

Data architect defines one or more Data Assurance Domains where he refers to the targeted regulation (s) and indicates the concerned organizations. He can use the Data Domain wizard to specifically the articles sections to be focused by Drag and Drop All articles and policies can connect to constrained Data in order to better follow their qualities and their performances.



A report can be generated from Data Assurance Domain, see Report chapter for more detail.

2.9.6.2. Data Quality & Data Assessment

A new Data Quality Assessment Template are provided to evaluation Data Asset on different Quality Dimension: Completeness, Uniqueness, Timeliness, Consistency, Validation and Accuracy.

This Assessment of the Data Quality can be memorized in HOPEX Repository and some action plan can be defined for remediation to improve this Data Quality. It can be done directly on each Data Asset by the Assessment Expert that can be Data Steward, Data Scientist, Data Quality Manager for example.

Also, it is possible to start an Assessment Campaign with multiple Sessions with questionnaire to evaluate Data Asset on the same Data Quality Dimensions.

HOPEX	P Internetion	Q. 4	Create new evaluation - Direct answers
🗮 – Butchess Skenary / Business Info	manus Assets / Concepts / Activity / Peulitatio	e offits & hards sheed.	Completeness: Are all data sets and data items recorded?
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	👄 My Concepts 😐 All Concepts	Activity	Tuy con
💣 Home	() new () 20 10 11	🧶   Assessment 👻	Uniqueness: Is there a single view of the data set?
🔮 Dashboard	C Contains I		Timeliness: Is the information available at the right time?
🗂 To-Do List	🖸 👄 Activities		Medum 👻
n Environment			Accuracy: Does the data reflect the data set?
📕 Business Glossery 🐱			Medium 🗸
🕞 Browse Term Definitions			Consistency: Can we match the data set across data stores?
Bustiters information An.			High
🛞 Glossary Report			Validity: Does the data match the rules?
30 Tools			Description
👑 Data Architecture			
🔘 Data Usage	0 • AP		
T Policies and Rules	🖂 🤷 Appleston		
· Operational Assurance	🗌 🥌 Application Architecture		
😰 Reporta	🔘 👄 Application Component		Data Quality Remidiation
😨 Campaign Management	🛛 🧶 Acclicator Platform		Remidation Action Plan
Administration	🗇 🗢 Application Flatform Interface (APD		
🔹 Colleboration 🌸 Favolitos			(Prestinus) (Heat) (Cancel
10 History	The second second second second second		

# **МЕ** G А

HOPEX aformation Architecture										80	
Business Glossary / Business Infor	mation Assets / Concepts / Activity						0	4+ 10+	~ 🗆 ·		3 📭
••	👄 My Concepts 🛛 🌒 All Concepts	Activity									
🔮 Home	⊙New ⊙ 20 % 10 i	👄 Assessment 🗸									
2 Dashboard	Lacal rame 1	+ Evaluate 🗙 Remove									٣
To-Do List	🗆 🥌 Activity	O Assessment Node 1	A	Evaluatio_	Completeness	Uniqueness	Timeliness	Validity	Accuracy	Consiste	
Environment	🗆 🗢 Actor	C 1 Activity (Concept)	NOURY Samir	11/11/20	Very Low	Low	Medium	Very High	Medium	High	
Business Glossary 🗸	🗆 🗢 Ada										
🕞 Browse Term Definitions	🗆 🥌 Adaptability										
🕒 Business Information As	🗆 🗢 ADM										
Glossary Report	🗆 🗢 Al media membership										

### 2.9.6.3.Assessment Template

Here the list of Assessment Template provided for Data Quality evaluation on Information Asset (Business, logical and Physical).



### 2.9.6.4. Data Lineage definition and Initialization

Data lineage includes the data origin, what happens to it and where it moves over time.



MEGA

It can be defined for multiple objects at Business, logical or physical level. Data lineage subject can Concept, concept view, Class, Data view, table, physical view but also Attribute or column.

🛜 My Busines	s Data Lineages 🛛 🔭 All B	usiness Data lineages	
🕑 New			
	Local name 🕇	Comment	Subject
🗆 🔯 Access (	Control (AC)		<ul> <li>Access Control (AC)</li> </ul>
🗋 😂 Booking	Number		Booking Number
	Capabland To-de List To-de List Carlormant List Listicanead Listicanead Listicanead Data Arbitetere Data Arbi	New     New     New     New       New     New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New       New     New	
	🔶 Favoritas 10 History	≪ ¢   Page 1 oft   > ≫   O   Snow ?	





#### b) Data Lineage Initialization

Data Lineage graph report is provided on all Data Asset to visualize where this data is used in content definition in the content of Scenario of systems.



This report can be used to confirm the Data Lineage diagram initialization or not.



### 2.9.7. Dashboard

# 

HOPEX Information Architecture provides a predefined dashboard that the user can customize, adding ready to use reports or building his own ones.





### 2.9.8. Reports

Multiples new Reports are defined and available from specific sub menus.



### 2.9.8.1.Glossary Report

A new report for Business Glossary is provided. It is based on Data set with Table format and available quickly from a menu Glossary Report.

It is possible to select one or multiple Business Dictionaries and to display all their term defined in the current language.

This report can be exported as Excel, RTF document.

HOPEX Information Architecture					Q -					e e 🖌	0	2 🗗
Business Glossary / Glossary Report	4						0	<	$\sim 10^{\circ}$	ų v		3 🗗
«	Busi	iness Dicti	onary Terms Glossary Report									
🚰 Home	3 Select	t one or seve	eral Business dictionaries to display its c	ontent in a re	port term, concep	t, synonym, etc						
🕐 Dashboard	Duelnees	Distigner	u Llas									
📋 To-Do List	w Wor	king Busin	ess Dictionary × Media Library 1	/ocabulary	с							~
Senvironment					2							
🚦 Business Glossary 🗸 🗸	Car	Rental Voc	abulary									
💷 Browse Term Definitions	Com	mon										
🔓 Business Information Assets		Term	Definition Text	Synonym	Hypernyms of Definition of Term	Hyponyms of current Definition of	Concept Type of Concept	Owned Business Entity	Referenced Business Object	Lower Multiplicity	Upper Multiplicity	
Glossary Report		Auto				Term		Feature		1	1	
💥 Tools		Automobile								1	1	
😃 Data Architecture		eable cable								1	1	
🜔 Data Usage			4-wheeled motor vehicle; usually propelled by an internal combustion engine; "he needs a car to get to work"	Auto						1	1	
T Policies and Rules			4-wheeled motor vehicle, usually propelled by an internal combustion engine, "he needs a car to get to work"	Automobile						1	1	
Operational Assurance			4-wheeled motor vehicle; usually propelled by an internal combustion engine, "he needs a car to get to work"	machine						ŧ.	1	
📝 Reports			4-wheeled motor vehicle; usually propelled by an internal combustion engine; "he needs a car to each to work"	motocar						1	1	
📌 Favorites		~										
🐌 History	0											

The previous glossary report is still available.

MEGA

### 2.9.8.2.Chord Report

This report displays the Business Information Area dependencies in Business information Map.



### 2.9.8.3. Data Domain Tree map

This report displays Data Domain map hierarchy based on Business Information map object. Filters are provided to display the map according the number of Functional Owner, and categories of Data as Sensitive Data or Golden Data.



Ν	lumber of displayed le	vels 2 V Display	criterion Number of co	omponents 🔻					
Number of components alth Domain Map									
l	Management		Curative Number Fund	tional Owner		Disease		Nursing	
			Number Gold	en Data					
			Number Sens	sitive Data					
	Integrated Health 25 %	Infrastructure Developement 25 %	Hospital Service Monitoring 33 %	Standard Service 33 %	Emergency 33 %	Disease Surveillance 50 %	Disease Control 50 %	Nursing Capacity Building 100 %	
			Epidemiology			Others Domains			
	Environmental Health 25 %	Logistic 25 %	Epidemiology Service 33 %	Epidemic 33 %	Mental Health 33 %	Social 33 %	Administrative 33 %	Financial 33 %	

### 2.9.8.4. Data Map breakdown

This breakdown report displays the hierarchy of its Data Domains. Criteria are available to present Data according the Functional Ownership, sensitive and Golden Categories.

Number of displayed levels All V	🕈 Unfold all items				Golden Data Golden
😑 🥘 Health Domain Map					
Management					
3 item(s)     Appointment     Diagnostics     Measurement					
Environmental Health	Infrastructure Developement	Integrated Health	Logistic		
Curative					
□ 2 item(s) Medication Treatement					
Emergency	Hospital Service Monitoring	Standard Service			
Epidemiology				E Nursing	
Epidemic	Epidemiology Service	Mental Health		□ 1 item(s)	
				Nursing Capacity Building	

### 2.9.8.1.Data Usage Report

All Data Usage Reports are updated to take account Data usage in scenario of software and Processes.



For example, below the concept "Booking Number" is used in the "Booking a travel package" Business information Area that is referenced in Account Management Organizational Process.

HOPEX Information /	Architecture 🛱 Selectan of	ect type 🐱 Find object 🔿 🔍 👻	• • • • • • • •
Business Glo	ossary / Business Information Assets / Concepts	Booking Number C to v	
	K 🗢 My Concepts 🗢 All Concepts	Booking Number	×
🔮 Home	💿 New 💿 🎝 🤮 🖽 🗄	Seporting V	
🕐 Dashboard	Local name †	Information Architecture / Information Usage 🐱	
📋 To-Do List	Regis		Actions 🐱
e Environme		G 1. Information Usage - Store	*
📕 Business 🔤	Book mambarchin	Information Information CDIID Assoc Otom Pares Associates Data Research Autom P	aferrary Data Data Seconda
🕮 Browse	Bookine      Beekies	Entity Memorization Referencing Owner Access Components Process S	cenario Consumption Provision Data Store Owner
🔒 Busine	B C Booking	Booking La Booking A CRUD CRUD CRUD CRUD A Travel package Analysis Account	
🕑 Glossar	Booking Number		
💥 Tools	Boundaryless Information Flow		
🙄 Data Archi	D BPM		
🜔 Data Usage	BPMN		
Policies a	D e branch		
Operation	🗆 🥌 втер		
	🔲 🥌 Building Block		

### 2.9.8.1. Data Category Dendrogram report

A new Dendrogram report is provided to display where some categorized data are used and consumed. The input parameter of the report can one or more Data Categories. The objective of this report is to help users to locate quickly where data of these categories are used for example in the applications inventory.

i Select Data Categories to display its da	tə.	
× Health × Sensitive		
Kerresh the report		
	Sensitive 🍋 Appolo Health 🛃	Medication
Categories 🛅	Healthcare (External) 🛃	Physician
	Appolo Health	Medical History

### 2.9.8.2. Data Category of Portfolio Dendrogram report

A new Dendrogram report is provided to display where some categorized data are used and consumed by Application of an Application Portfolio.

The input parameter of the report is an Applications portfolio. Only Data that are categorized are displayed in the report. They are grouped per data category and applications that use this Data.

Portfolios / All Application Portfolios / Portfolio-2	2	ິ କ <u>~</u> ∣≁`	💉 🖵 🗸 🖪	\$	iii
🔒 My Application Portfolios 👻 🚦	Health Application Portfolio				×
Local name †	🔒   Reporting - Data Category of Portfolio Dendrogram 👻				
🔽 👶 Health Application Portfolio	1. Portfolio Data Category Dendrogram			0	: :
				-	
	Sensitive 🍅 — Appolo Health	- <u></u>	Medication	Q	
	Health Application Portfolio 💁 🛛 🔤 Golden Data 🍟 🔹 Appolo Health	h 🛃	Medical History		
	Healthcare (External	) 🛃	Physician		
	Health 👩 Appolo Health	h 🛃	Medical History		
	Portfolios / All Application Portfolios / Portfolio-2	Pertfolios / All Application Portfolios / Portfolio My Application Portfolio Local name 1 Reporting - Data Category of Portfolio Dendrogram B. Health Application Portfolio B. 1. Portfolio Data Category Dendrogram Health Application Portfolio B. Golden Data @ Appolo Health Health Application Portfolio B. Golden Data @ Appolo Health Health Application Portfolio B. Appolo Health Health Application Portfolio B. Appolo Health	Pertfolios / All Application Portfolios / Portfolio	Pertolios / All Application Portfolio-2	Pertolies / All Application Portfolio-2

### 2.9.8.3.Regulatory Report

This Report displays all policies of specific regulatory and policies, the list of Data Asset that are constrained, the data responsibility and their role.

HOPEX Information Architecture			• <b>9</b> 🤉 [
Beports / Policies Reports / Regula	tny Framovark Report 4	O SHIPY N	) · 🗊 🛆 I
(C	Parameters		•
8 Environment	Regulatory Framework Liat		
Business Glossery	Ø Conset		т
🙄 Data Architecture	Local name T	Name Order 1	Local name
O Data Usage	BOBSCIN Base Committee on Baning Supervision		
Policies and Rules			
Operational Assurance			
🛛 Reports 🗸 🗸			
Description Reports	≪ < Page 1 of 1 > >> Ø Show 50 C elements		Displaying 1 - 1 of 1
🔄 Word Cloud Reports	1. Regulatory Framework Report		•
🛞 Data Usage Reports			
Delicies Reports	Regulatory Constrained Article Subject Co Framework Business Information	omment	Assigned Business Person Role
Data Assurance Reports	(6) 27 A darks to and and service meragement should provide the identification assessment and management of data quality risks as part of the owned risk management formwork. The framework should include agreed service leads to both subscured and inforces and shouse each discussional processes and a firms publicles on data confidentially integrity and		
Other Reports Campaign Management	State is taken and and service management dataf welves and approve the tarks group this data appreprint and interpreting framework and ensure that abequade resources     Para Tarks     Para Tarks	elines gathering, and processing reli data according to in bank's risk reporting requirements to enable the bank immoving the performance against the reliance to the performance became tagentie. This includes sorting, merging or realistic down acts of data.	
Administration	Source one can appropriate and rain reporting practices should be     Source one can appropriate and rain reporting practices should be	afining, pathening, and processing risk data according to is bank's risk reporting requirements to enable the bank measure th performance against think serance against. This includes sorting, merging or making down with of data.	
	Valuation 70	he process by which the correctness (or not) of inputs recession, and outputs is identified and quantified	

### a) BCBS 239 and Solvency II Reports

These reports are visible when the corresponding regulatory are imported from solution Pack. They allow to describe the details of the regulation and to show which sections are constrained the data.

Titles	Chapters	Chapter Articles	Chapter Articles Description
		27 A banks board and senior management should promote the identification assessment and management of data quality risks as part of its overall risk management formwork. The immervoir should include agreed server is evel standards to both outcourde and inhouse risk datavailad processes and a firms policies on data confidentially integrity and variability as well as risk management policies	A bank's board and senior management should promote the identification, assessment and management of data quality ris as part of its overall risk management framework. The framework should include agreed service level standards for both outsourced and in-house risk tak-related processes, and a firm's policies on data confidentiality, integrity and availability, a well as risk management policies.
		26 A banks board and senior management should review and approve the banks group risk data aggregation and risk reporting framework and ensure that adequate resources are deployed	A bank's board and senor management should review and approve the bank's group risk data aggregation and risk reporting framework and ensure that adequate resources are deployed.
	Principal 1 Governance A banks risk data aggregation: capabilies and risk reporting practice about the sagest 10 storeg of the principal and grudinose stabilished by the Basel Committee	29 A banis risk data apgregation capabilities and risk reporting practices should be	A back's rule data apprepation expendition expending practices should be independent and review the back's compliance with the Principle in this document. The princip practices in this document that the data apprepation is the back's rule (addition is to ensure that ) aback's rule data apprepation and reporting practices in the data apprepation is the back's rule (addition is to ensure that ) aback's rule data apprepation and reporting practices in the data apprepation is the back's rule (addition is to ensure that ) aback's rule data apprepation and reporting practices in the data apprepation and reporting practices in the data apprepation and rule (addition apprepation and rule apprepation and rule apprepation and rule apprepation practices is applied and integroting practices. See the under the application of the independent validation of single appreciations and rule reporting practices. If should be independent validation of single appreciations are data appreciations and rule appreciation appreciations and rule appreciations and rul
L. Overarching governance and infrastructure	3 John Abanka senior mana imitations that prevent full in captured or subsidiares on the subsidiary subsidiary sub- subsidiary subsidiary subsidiary sub- document at lange table access document.	30 A banks serior management should be fully aware of and understand the instations that prevent full risk data aggregation in terms of coverage or priors not cophered or understand or included in terms and the performance indicators sharing across purport of the series of the series of the series of the sharing across purport of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the practices and to remove any indications against the Principles of full in this document liable paracement for series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the s	A bank is senior management should be fully aware of and understand the limitations that prevent full risk data aggregation in terms of coverage (eg risks not captured or subsidiaries not included), in technical terms (eg model performance indicators or degree of reliance on manual processes) or in legal terms (legal impediments to data sharing across jurisdicions). Senior management should ensure that the bank of Tartadey includes ways to improve risk data aggregation capabilities and risk reporting practices and to remedy any shortcomings against the Principles set forth in this document taking into account the evolving medis of the subsidies. Senior management should also identify data critical to risk data aggregation and TI infrastructure initiatives through its strategic IT plenning process, and support these initiatives through the allocation of appropriate levels of financial and human resources.
		31 A banks board is responsible for determining its own risk reporting requirements and should be aware of imitations that prevent full risk data aggregation in the reports it receives. The board should also be aware of the banks implementation of and ongoing complexes with the Principles ed unit in this document.	A bank's board is responsible for determining its own risk reporting requirements and should be aware of limitations that prevent full risk data aggregation in the reports it receives. The board should also be aware of the bank's implementation and ongoing compliance with the Principles set out in this document.
		32 Risk data aggregation capabilities and risk reporting practices should be given direct consideration as part of a banks business continuity planning processes and be subject to a business impact analysis	Risk data aggregation capabilities and risk reporting practices should be given direct consideration as part of a bank's business continuity planning processes and be subject to a business impact analysis.
	Principle 2 Data architecture and IT infrastructure A bank should design build and maintain data architecture and IT	33 A bank should establish integrated16 data taxonomies and architecture across the banking group which includes information on the characteristics of the data metadata as	A bank should establish integrated16 data taxonomies and architecture across the banking group, which includes information on the characteristics of the data (indicatata) as well as use of single identifiers and/or unified naming conventions for data including legal entities, counterparties, customers and accounts.
	aggregation capabilities and risk reporting practices not only in normal times but also	34 Roles and responsibilities should be established as they relate to the ownership	Roles and responsibilities should be established as they relate to the ownership and quality of risk data and information fo

### 2.9.8.4. Rules Report

This report displays Rules description, the corresponding Business Policies, and the Rule Enforcement information.



Parameters

Rule	Bui	lding	В	lock	List
------	-----	-------	---	------	------

P Connect

0	oonneot				•
	Local name 🏌 🗸 🗸	Name	Order 1 I Subscribe	Get a link	Variant Side Variatio
8	Assignment Rule	1. AS-IS::0. Business Strat		http://800-000-int5370.fr	
8	Authorization for Purchase Order	World@Hand::Core Busine		http://800-000-int5370.fr	
8	Bad Customer Experience Rule	World@Hand::Core Busine		http://800-000-int5370.fr	
8	Best Pricing Rule	World@Hand::Core Busine		http://800-000-int5370.fr	
<	🔇 🔍   Page   1   0f1   🕽	>> 1 🕄 Show 50	elements		Displaying 1 - 4 of 4

Guide

Actions 🗸

# Rule Building Block Rule Derived Regulation

□ 1. Rules Description Chapter

	Description	Block	Schema	Process	Activity
Assignment Rule					
Authorization for Purchase Order Over 5000 Dollars					
Sad Customer Experience Rule					
Best Pricing Rule					

**Business Policiy** 

Enforcing

### 2.9.8.1.Data Quality Report

Data Quality Report can be generated from Information Area that use Data Asset. The Data Quality report displays the last Assessment of Data Asset on the different Data Quality Dimension.

### **МЕ** G А



### 2.9.9. UX Improvement

Property Pages of Business Information Objects are improved by reducing the number of property pages and declaring them as properties group in the Characteristics Page of concept, Concept Type, ...

venicule			
<ul> <li>Characteristics - Characteristi</li> </ul>	cs 🗸		
Default font	$I  \underline{U} \mid T^*  T^* \mid \underline{T} \checkmark$	$\blacksquare \; \bullet \; \mid \equiv \; \equiv \; \equiv \; \mid \mathscr{O}$	0
Vehicle is defined as any car, van or truck re	nted by a Driver from Rent Car compa	any.	
🕼 Designed Term 🏼 🕼 Synor	nyms 🥌 Hypernyms 🍕	e Hyponyms	
😧 New 🔗 Connect 📳 🗴			T
Local name 🕇	Language	Owner Business Diction Ow	ne
Jehicule	🗱 English	🖣 Rent Car Business Dic 🎙	Re
Data Categories:			~
Abstract Concept			
Components			~
Individuals			~
Individuals Responsibilities			~ ~
Individuals Responsibilities Policy Constraints			~ ~ ~
Individuals Responsibilities Policy Constraints Data			

### 2.9.10. Utilities

MEGA

2.9.10.1.	Renamina
	rtenarining

Object type	Old name	New name
Profile	Data contributor	Data Assessment Manager
Meta Class	Representation Type	Information Item
Meta Class	Representation Type Rule	Information Item Rule
Meta Class	Representation Type Rule Output Parameter	Information Item Rule Output
		Parameter
Meta Class	Representation Type Rule Input Parameter	Information Item Rule Input Parameter

### 2.9.10.2. MS Excel import template

### a) Term and definitions Initialization

"Concept Excel Template" is an Excel Template provided to initialize a Business Information in HOPEX repository when terms and their definitions are already existing.

# **MEGA**

Term         Term_laner         Term_dert         Busness Dictionary         Language         Total Deltation           EE16EEDE442800E3#06900A115C9319C5         059000A4000063         969906495C901992         0500C4450319C         86990A4850319C         86990A490A3146         86004666679         86004666679	A	B	С	D	E	F	G
Car     Term, Car     Car Bushess Dectensry     EN       Automobile     Term, Automobile     Car Bushess Dectensry     EN       Automobile     Term, Matchine     Car Bushess Dectensry     EN       Machine     Term, Matchine     Car Bushess Dectensry     EN       Machine     Term, Matchine     Car Bushess Dectensry     EN       Motoccar     Term, Matchine     Car Bushess Dectensry     EN       Railway car     Term, Railway car     Car Bushess Dectensry     EN       Railway car     Term, Railway car     Car Bushess Dectensry     EN       Railway car     Term, Sailwad car     Car Bushess Dectensry     EN       Gable car     Term, Sailwad car     Car Bushess Dectensry     EN       Gondola     Term, Cable car     Car Bushess Dectensry     EN       Gondola     Term, Condola car     Car Bushess Dectensry     EN       Boat     Term, Gondola car     Car Bushess Dectensry     EN       Gray hold     Term, Gondola car     Car Bushess Dectensry     EN       Gray hold     Term, Gondola car     Car Bushess Dectensry     EN       Gardy boat     Term, Gondola car     Car Bushess Dectensry     EN       Gray hold     Term, Gray holder     Car Bushess Dectensry     EN       Gray holder <t< td=""><td>Term EC16EEDE442800E3#C69DCA115C93126B</td><td>Term_Name 0000000040000063</td><td>Term_ident 9B089CFF5C947952</td><td>Business Dictionary C69DCA055C931225</td><td>Language C69DC9445C9311DC</td><td>Text Definition 869F9ABB5CA43A1E</td><td></td></t<>	Term EC16EEDE442800E3#C69DCA115C93126B	Term_Name 0000000040000063	Term_ident 9B089CFF5C947952	Business Dictionary C69DCA055C931225	Language C69DC9445C9311DC	Text Definition 869F9ABB5CA43A1E	
Auto     Term_Auto     Car Business Doctonary     EN       Automobile     Term_Automobile     Car Business Doctonary     EN       Machine     Term_Machine     Car Business Doctonary     EN       Motorcar     Term_Machine     Car Business Doctonary     EN       Railcar     Term_Railcar     Car Business Doctonary     EN       Railcar     Term_Railcar     Car Business Doctonary     EN       Railvay car     Term_Railcar     Car Business Doctonary     EN       Railvag car     Term_Railvay car     Car Business Doctonary     EN       Railvag car     Term_Railvay car     Car Business Doctonary     EN       Cable car     Term_Gondola     Car Business Doctonary     EN       Gondola     Term_Gondola     Car Business Doctonary     EN       Elevator car     Term_Baviess Carany     EN       Gondola car     Term_Boat     Car Business Doctonary     EN       Boat     Term_Gondola     Car Business Doctonary     EN       Gray boat     Term_Gray boat     Car Business Doctonary     EN       Gray bolder     Term_Gray boat     Car Business Doctonary     EN       Gray bolder     Term_Gray boat     Car Business Doctonary     EN       Gray bolder     Term_Gray boat     Car Business Doctonary <td></td> <td>Car</td> <td>Term_Car</td> <td>Car Business Dictionary</td> <td>EN</td> <td></td> <td></td>		Car	Term_Car	Car Business Dictionary	EN		
Automobile     Term_Automobile     Car Business Dictionary     EN       Machine     Term_Motorcar     Car Business Dictionary     EN       Motorcar     Term_Motorcar     Car Business Dictionary     EN       Railcar     Term_Railcar     Car Business Dictionary     EN       Railvay car     Term_Railway car     Car Business Dictionary     EN       Railvay car     Term_Railway car     Car Business Dictionary     EN       Railvad car     Term_Sailvad car     Car Business Dictionary     EN       Cable car     Term_Gondola     Car Business Dictionary     EN       Gondola     Term_Gondola     Car Business Dictionary     EN       Gondola car     Term_Gondola car     Car Business Dictionary     EN       Gondola car     Term_Gondola car     Car Business Dictionary     EN       Gondola car     Term_Boat     Car Business Dictionary     EN       Gravy boat     Term_Gravy hold     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN		Auto	Term_Auto	Car Business Dictionary	EN		
Machine     Term_Machine     Car Business Declonary     EN       Motorcar     Term_Motorcar     Car Business Declonary     EN       Railcar     Term_Railcar     Car Business Declonary     EN       Railcar     Term_Railcar     Car Business Declonary     EN       Railcar     Term_Railcar     Car Business Declonary     EN       Railrad car     Term_Sailcad car     Car Business Declonary     EN       Cable car     Term_Cable car     Car Business Declonary     EN       Gondola     Term_Gondola     Car Business Declonary     EN       Gondola     Term_Gondola     Car Business Declonary     EN       Gondola car     Term_Gondola     Car Business Declonary     EN       Gondola car     Term_Gondola car     Car Business Declonary     EN       Gondola car     Term_Gondola     Car Business Declonary     EN       Gondola car     Term_Gondola car     Car Business Declonary     EN       Gray bolder     Term_Gray boalt     Car Business Declonary     EN       Gray bolder     Term_Gray boalt     Car Business Declonary     EN       Gray bolder     Term_Gray boalt     Car Business Declonary     EN       Succeboat     Term_Gray boalt     Car Business Declonary     EN		Automobile	Term Automobile	Car Business Dictionary	EN		
Motorcar     Term_Motorcar     Car Business Dictionary     EN       Railcar     Term_Railcar     Car Business Dictionary     EN       Railvay car     Term_Railvay car     Car Business Dictionary     EN       Railvay car     Term_Railvay car     Car Business Dictionary     EN       Railvay car     Term_Railvay car     Car Business Dictionary     EN       Railvad car     Term_Salicad car     Car Business Dictionary     EN       Cable car     Term_Goldola     Car Business Dictionary     EN       Gondola     Term_Gondola     Car Business Dictionary     EN       Gondola car     Term_Gondola car     Car Business Dictionary     EN       Gondola car     Term_Boat     Car Business Dictionary     EN       Gondola car     Term_Boat     Car Business Dictionary     EN       Gravy holt     Term_Gravy hold     Car Business Dictionary     EN       Gravy hold     Term_Gravy holder     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Sauceboat     Term_Gravy holder     Car Business Dictionary     EN		Machine	Term_Machine	Car Business Dictionary	EN		
Railcar     Term, Railcar     Car Busness Dectonary     EN       Railway car     Term, Railway car     Car Busness Dectonary     EN       Railroad car     Term, Sailroad car     Car Busness Dectonary     EN       Cable car     Term, Cable car     Car Busness Dectonary     EN       Gondola     Term, Gondola     Car Busness Dectonary     EN       Elevator car     Term, Gondola car     Car Busness Dectonary     EN       Gondola car     Term, Gondola car     Car Busness Dectonary     EN       Gondola car     Term, Gondola car     Car Busness Dectonary     EN       Gondola car     Term, Gondola car     Car Busness Dectonary     EN       Gondola car     Term, Gondola car     Car Busness Dectonary     EN       Gondol car     Term, Gondola car     Car Busness Dectonary     EN       Gravy hold     Term, Gravy holder     Car Busness Dectonary     EN       Gravy holder     Term, Gravy holder     Car Busness Dectonary     EN       Sauceboat     Term, Sauceboat     Car Busness Dectonary     EN		Motorcar	Term_Motorcar	Car Business Dictionary	EN		
Railway car     Term     Railway car     Car Business Dectonary     EN       Railroad car     Term_Sailroad car     Car Business Dectonary     EN       Cable car     Term_Gable car     Car Business Dectonary     EN       Gondola     Term_Gondola     Car Business Dectonary     EN       Elevator car     Term_Gondola car     Car Business Dectonary     EN       Gondola car     Term_Gondola car     Car Business Dectonary     EN       Boat     Term_Gary bat     Car Business Dectonary     EN       Gravy boat     Term_Gravy bal     Car Business Dectonary     EN       Gravy boat     Term_Gravy balder     Car Business Dectonary     EN       Sauceboat     Term_Gravy balt     Car Business Dectonary     EN		Railcar	Term_Railcar	Car Business Dictionary	EN		
Railroad car     Term, Sailroad car     Car Busness Detonary     EN       Cable car     Term, Cable car     Car Busness Detonary     EN       Gondola     Term, Gondola     Car Busness Detonary     EN       Elevator car     Term, Condola car     Car Busness Detonary     EN       Gondola car     Term, Condola car     Car Busness Detonary     EN       Boat     Term, Gondola car     Car Busness Detonary     EN       Gravy boat     Term, Gravy boat     Car Busness Detonary     EN       Gravy holder     Term, Gravy holder     Car Busness Detonary     EN       Sauceboat     Term_Sauceboat     Car Busness Detonary     EN		Railway car	Term_Railway car	Car Business Dictionary	EN		
Cable car     Term_Cable car     Car Business Dectonary     EN       Gondola     Term_Gondola     Car Business Dectonary     EN       Elevator car     Term_Elevator car     Car Business Dectonary     EN       Gondola car     Term_Gondola Car Business Dectonary     EN       Boat     Term_Gondola Car     Car Business Dectonary     EN       Gravy boat     Term_Gravy boat     Car Business Dectonary     EN       Gravy holder     Term_Gravy boat     Car Business Dectonary     EN       Sauceboat     Term_Sauceboat     Car Business Dectonary     EN		Railroad car	Term_Sailroad car	Car Business Dictionary	EN		
Gondola     Term_Gondola     Car Business Dictionary     EN       Elevator car     Term_Gondola car     Car Business Dictionary     EN       Gondola car     Term_Gondola car     Car Business Dictionary     EN       Boat     Term_Gondola Car Business Dictionary     EN       Gravy boat     Term_Gravy holder     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Sauceboat     Term_Sauceboat     Car Business Dictionary     EN		Cable car	Term_Cable car	Car Business Dictionary	EN		
Elevator car     Term, Elevator car     Car Business Dictionary     EN       Gondola car     Term, Gondola car     Car Business Dictionary     EN       Boat     Term, Boat     Car Business Dictionary     EN       Grayy boat     Term, Gray boat     Car Business Dictionary     EN       Grayy holder     Term, Gray boat     Car Business Dictionary     EN       Sauceboat     Term_Gray boat     Car Business Dictionary     EN		Gondola	Term_Gondola	Car Business Dictionary	EN		
Gondola car     Term, Gondola car     Car Business Dictionary     EN       Boat     Term_Boat     Car Business Dictionary     EN       Gravy boat     Term_Gravy boat     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Sauceboat     Term_Sauceboat     Car Business Dictionary     EN		Elevator car	Term_Elevator car	Car Business Dictionary	EN		
Boat     Term, Boat     Car Business Declonary     EN       Gravy boat     Term, Gravy boat     Car Business Declonary     EN       Gravy holder     Term_Gravy holder     Car Business Declonary     EN       Sauceboat     Term_Sauceboat     Car Business Declonary     EN		Gondola car	Term_Gondola car	Car Business Dictionary	EN		
Gravy boat     Term_Gravy boat     Car Business Dictionary     EN       Gravy holder     Term_Gravy holder     Car Business Dictionary     EN       Sauceboat     Term_Sauceboat     Car Business Dictionary     EN		Boat	Term_Boat	Car Business Dictionary	EN		
Gravy holder Term, Gravy holder Car Business Dictionary EN Sauceboat Car Business Dictionary EN		Gravy boat	Term_Gravy boat	Car Business Dictionary	EN		
Sauceboat Term_Sauceboat Car Business Dictorery EN		Gravy holder	Term_Gravy holder	Car Business Dictionary	EN		
		Sauceboat	Term_Sauceboat	Car Business Dictionary	EN		

The Concept Template enables end User to simply import Terms and their definitions or a rich definition of Terms by specifying concepts with their definitions, synonyms, Data categories composition, states, Hyponyms, ...

### b) Data Excel Template

A new Excel Template is available to initialize Logical Data as Classes, Attributes, relationships, generalizations, Data types, Data Dictionaries and Data Categories.

A	8	С	D	E	F	
Class 7DB8824033340504#E93E55535E1F4860	Class Short Name 0000000040000063	Class ID 5C14B2AD5E31303C	Data Dictionary Name 27E32F805E276411	Data Dictionary ID E49A05885E347999	Data Categories 808DCF8C5E256D5C	Comment 000000040000029
	Car		Rent Car Management		Golden Data	
	Elevator car		Rent Car Management			
-	Gondola		Rent Car Management			
	Boat		Rent Car Management			
1	Truck		Rent Car Management			
	Van		Rent Car Management			
	Customer		Rent Car Management		Golden Data	
	Insurance		Rent Car Management		Golden Data	
	Direct Customer		Rent Car Management			
	Agency Customer		Rent Car Management			
	Contract				Golden Data	
T	i i					

The import of classes can invoke the creation of concepts or its connection if they exist with the same names. Thus, the two business and logical data are automatically linked. This mechanism helps to initialize the business dictionary. It can be configured using the "Business Dictionary Initialization" option.





### 2.9.10.3. Options

A compatibility option has been defined to allow in some cases for old customers to find the menus Business, Logic and Physical menus of the Old Information Architecture desktop.

This option is temporary because the old Information Architecture desktop will not be supported soon.



#### 2.9.10.4. Solution Pack

HOPEX Information Architecture provides new content of Data Categories provided as Solution Pack.

#### 2.9.10.1. HOPEX Store

HOPEX Information Architecture provides regulatory as BCBS239 and Solvency II content description in HOPEX Store.

### **2.10..** HOPEX Application Design

### **MEGA**

• HOPEX Application Design is now deprecated. But UML notation, User Interface and Job/Batch modeling tools are now integrated in HOPEX IT Architecture v2.

### **2.11.. HOPEX IT Architecture**

### 2.11.1. Diagramming Improvement

- Standardization of icons and shapes for partner objects in environment diagrams.
- Definition of groups of icons
- Addition of an icon for Application Flow (instead of link tool)

; ⊕ ⊕ ⊘	⊈ 🗸 Q, Q, 100% ✔   🖻 🔲 🖨 🖂 🗏   ⊕ 😁   🎘 Arial
	Payroll Management System Environment-1< Payroll Management System Environment>
<ul> <li></li></ul>	Payment Management System

- Creation of Input/output Gates : content proposal based on owned contents
- Creation of Application Flow : content proposal based on owned contents
- Creation of Application Flow "from Input Gate" or "to Output Gate" : blind creation by reusing gate content
- Improvements on diagram initialization for scenario flows diagrams

### 2.11.2. Modeling Capability

- Addition of flow scenario diagram on Logical Architecture (Logical Application System Environment and Logical Application System)
- Capability to link sub-scenarios to a scenario participant (to declare relevant sub-scenario according to the context for drill down)

### 2.11.3. Property Pages

- New page for System Process
- New page for Software Technology

### 

### 2.11.4. Reporting

- New graph report on scenario flows of an Agent (Application System, Application, IT Service etc.). This report is embedded in property page.
- New graph report on interactions of an Agent (Application System, Application, IT Service etc.). This report is embedded in property page.
- New graph report on scenario flows between Agents
- New graph report on interactions between Agents





### 2.11.5. Profiles

Application Architect profile can't create process anymore (business or organizational)

### **2.11.6.** Business Capability Diagram

Supply of Business Capability Tree diagram in HITA. Allows to draw diagram with nested Business Capabilities as it was possible with city planning area diagram.

### 2.11.7. Technical Architecture

Improvement of technical communications description (standard port number for application protocol, transport protocol, link technical ports to service/request point)

Supply of standard transport protocols with their standard port number.

New tile for Application System Technical Architecture

Improvement of Application Property Page to handle technical architecture and technical areas

# 2.11.8. Migration of Application Design features in IT Architecture

• HOPEX IT Architecture v2 contains now the UML notation, User Interface and Job/Batch modeling tools.

#### 2.11.9. Removal of "Business Person"

• "Business Person" and responsibilities are migrated to Person (System) and assignment.

# 3. UX Improvements

### 3.1.. Drag & drop Multiple Business document

Currently in Hopex, if you want to add a file, the classical way is to go to attachment section of the item & then add files by clicking new.

We made this feature easier & faster. You can now add files by dragging & dropping from your PC into Hopex. Just select the files you want to attach & then drag them to attachment section.

If there is no data yet, an upload prompt underneath the table will allow the user to select files from their computer or drag a file into the application to begin the upload process.





Horizontal insertion indicator and highlighting is used to show where content will reside when dropped.





You can drop many files at a time & when the file starts uploading, then users will see the progression of the file & eventually you can cancel the upload if you decide to upload another file.

The completion status of the uploading file is shown with the percentage & green check mark appears on each file as soon as it is uploaded.

Once all the files are attached inside the section the popup disappears and all the files are shown a list allowing the user to open or delete the document if it is no more needed.





PEX ≓ acy Management	• Q -			× 8 0
Home 7 All Processing Activities 7 Email Marheling			0 6-10-	~ • • • •
Hierarchy View	Email Marketing			
ew 🛛 🖓 Record Scope	T			Status:* 🛞 Live
Processing Activity   Processing Activity Parp_	ID Overview Le	gal Basis Details Regulations Pressessment DP	1A Action Plans	
coidents and diseases manage,	() Cany out a high level	assessment of the processing activity based on the information provided in the p	revious sections. The scope of the pre-assessment is to re	fertify those processing activities which rag
ompany car tieet management.	a DPIA (those charac	terized by a high risk) or require adjustments, having a low compliance level		
esign of Organization Structur	Complia	nt Almost Compliant Complia	nt Compliant	R None
sciplinary Measures and Conc	Loye Rent	Chere sites monatore	in Mengement	County Meetings Completes Level
nail Management	Preasonsprient Attach	aenta		
sail Marketing	• New ອ			1 row(s) selected out of 3
nployee training Management	D Date	next Tale ] Decument 10 De	cuncat Description File	
sployees Costs Management.	Abeleis chart t	pé haicerchy.jpg	9	
ployees evaluation process s	Audit offine - L	ser stories xisx	0	
ancial Reporting	Audit Offine se	8 ID Presentation patx	0	
lp Desk			Open Doc	ument
.ogs Management	Validation			
systems administrators	Pre-assessments   for	ory		
EGA HOPEE (pt) X 🧿 extret asps (2422-2634)	× +			- 0
<ul> <li>C          O Not secure   800-000-int5371.fr.mega.com     </li> <li>B UOUI          B SightEdge   SEO PL.          My Costs         Q Opti     </li> </ul>	Hopes/extref.aspx?data=generation?ype-externalReference&us	serdatan - Jai Thilo TyU 4940432088/ilenamen Menu, old%20crop.png%20v1. spinest PIP Tutts 💋 Ruby on Raits Guid 😨 Asion - Spot UI 🚫 Exper	prig ne Center - Le 🙆 Asions - Spot U. 🍘 INTL Stes   Loc	st 🖋 🥥 🛵 😁
		NP GUIDEDINALIUS		
		109 WORKING LINE 41 HOTAL REPORT		
		ALL ACTIVATES		
		Mon		
	Conadiration	SPETIDENK, COMPETE We followed COMPE		
		SP GUISTICKNIK PES		
		My well-set-based		
		ORLANDSAMEN DRIVEN		
		My reparts My repart for change to realize		
		My course of requests for change remutation in the		
		Ny regard to charge (all amplitude		
		ABYTHERS Tasks to califiade		
		MPTR242 Tepin to variable Recursted lawle		
		00754240 Takes to vanishe Precisioned suice Object requires as Myrite as		
	Menu	UPTISED Take to valuate Breamfortune UPTISED Barrier UPTISED UPTISED Barrier Barrier Mittass		
	Menu	ar fold y Regularism and Regularism and Reg		

To Do Est

Reports Myraperts

Application of my and degree Application of the Application of Applicationo



H:	DPEX ivacy Management ≓	0 Q +	•		G
Ξ	Home / All Processing Activities / Ernail Marketing	O thelay w 🖸 .		6	Eq.
1	Ist Hierarchy View	Email Marketing			×
0	New 🗸 Record Scope 🕇	Statut	• 🕲 Live		~
0	Processing Activity T Processing Activity Parp_	Overslew Legal Basis Betallo Regulations Prossessment DPIA Action Plans			
	Accidents and diseases manage	Carry out a high level assessment of the processing activity based on the information provided in the previous sections. The scope of the pre-assessment is to identify those processing activities which require a DPI4	these charact	terized by	
	Company car lifet management	a high risk) of require adjustments, having a low compliance level.			
	Design of Organization Structur.	Compliant Almost Compliant Compliant None			
	Disciplinary Measures and Conc	Use fore des landers for the series of the fore the series of the seri			
	Email Management	Proceedings to Analysis			•
	Email Marketing	© New 🕐 🖼 🖬 3709(5)	selected out	of 4 T	
	Employee training Management	D By Remove I Decument ID Decument Description File			
	Employees Costs Management	🖸 Abeles chun type balanchy jpg 👌			
	Employees evaluation process s	Audit offline - User stories.xlss.			
0	Financial Reporting	Audit Offline SCHO Presentation.ppti			
	Help Desk	🖬 Menne, old grop.png			
	IT Logs Management				
	IT systems administrators	Valdetion			2
0	Payroll and benefits MA	Pre-assessments History			

All the attachment sections where you can add business documents will now benefit from this feature.

The accepted type of file is specified on list level so that only those types of files are accepted when dropped on specific lists.

Home / All Processing Activities / Email Marketing		C hulde	~ U ~ E & !
List Hierarchy View	Email Marketing		
⊙ New 🛛 🕅 Recott Scope	Y		Otenuet 🕘 Live
Processing Activity 1 Processing Activity Perp. 10	Overview Legit Basis Details Regulations Pressessment DFIA	Action Films	
Accidents and diseases manage.	Carry out a high finite assessment of the processing accord laboration devices provided in the strength		
Company car fleet management	a 20% (more obstants out by a right of 4) or septial agriculture in having a the completion level		
Design of Organization Structur	Compliant Almost Compliant Compliant	Compliant	None
Disciplinary Measures and Conc			
Email Management	Protocology International Contractory		
D Email Marketing	(c) Jaren 🗵 🕢 🛞 🔟		L row(s) selected out of 3
D Employee traning Management	D Recomment Trice 1 Decumeent 10 9	Description Tile	
Employees Costs Management	12 Alian dar typ hearing by	0	
) Employees evaluation process s .	0	0	
7 Financial Reporting	Prototyset up (FMR) 100% 1	0	
) Help Desk	This type of file is not accepted		
IT Logs Management	Validation		
1 IT systems administrators	Prot. announcement Processy		
Pavroli and benefits-MA			

Uploading a file is simplified in overall platform by opening the system files directly without many popups.

Mega File Import - Parameterization (SO	но)		<b>a</b> (
Command File			~
Command File *			
			Browse
hoceaning	Cipen	×	
Meta Model		<ul> <li>✓ δ Search UX improvements_Sp.,, .P</li> </ul>	
Tachnical Data	Organice - New folder	) : · 🖬 🛛	
Data	Ding & dramp Files Namme My Rearised Files () [647] transfer priority intrideor Ut improvement: Space () [65] ballone dagram rises deor	Tute modified         Type         Size           04/05/2019 104P         16/crearly Word D., 14 KB         16/05/2019 1612           10/05/2019 1612         16/crearly Word D., 615 KB	
Standard v	Constinue Cloud Files     Marcipation Scenarios ppto     Sea Anna Participation     Michail Meternational     Denning Michail Meternational     Denning Michail Meternational     Denning Michail Meternational	06/02/2019 1441 Microsoft Powoff, 2,422 Mi 04/11/2019 1223 Outloo Ram 54 Mi 18/02/2019 1828 Microsoft Wood D., 12 Mi 22/02/2019 1824 Microsoft Wood D., 12 Mi	~
Directes	The PC Dektop		-
Check Absolute Identifiers	<ul> <li>Documents</li> </ul>		
Control Witting Access Areas	File name	All Files (*.*)     Copen Cancel	
lines			~
Standard Reprocessing			
Reassign Uper			
			(Presidue) Import (OR) Conce

### 3.2.. Full text search to refine your search results



Full search is now equipped with faceted search capabilities. HOPEX will now use faceted search navigation to add multiple filters to the result set.

Faceted search is a technique which involves augmenting traditional search techniques with a faceted navigation system, allowing users to narrow down search results by applying multiple filters based on faceted classification of the items. It is also called as "guided navigation".

The new full search comes up with the ability to choose on which pane you want to display your search results.

The two options to view results are:

- Navigation pane
- Bottom pane

By default, bottom pane is selected, and users can select navigation pane if they want to replace their current navigation with the search results. Showing the search results on bottom pane will allow the user not to lose his current navigation & help them to use drag & drop items into the browse or properties panel. After refining your search results by using filters, if the user decides to navigate, he can click on "navigate" button on top of the lists and from there he can navigate to see the properties or use collaboration features.

You can minimize or maximize the search results page according to your need & the system saves the last option you selected.

For the basic user, who just wants to see search results and navigate from the results page, he can just select view pane as "browse" which will allow him to navigate right from the search results.

Results			, i
			1
Filtero	٠٢	Search results	
Туре	^	(Treal) Types Litray, December Jetting *	Navigate
<ul> <li>Business Capability</li> </ul>		Object	Object type
CustomerExpectation		Email Marketing	Processing Ac.
Customer Journey			
DPIA		Englisher Control of Control International Activity Control of Con	
Enterprise		Enail Marketing	Processing Ac.
Functionality			
🖼 Library		Reserved. Conserved process or an endocrease process of the second proces of the second proces of the second process of the second p	
Coportunity		Ernel Management	Processing Ac.
Privacy Pre-Assessment		Found an Itamy, Short Name	
Privacy Recommensation		Common Research	1000
Drivacy Risa		Souther resources	Lorwy
Privacy SLOC ortifiactor Proces	sing	Long age: NordigHand Common Resources Provat & Revisional Common Resources Provat & Revisional (Polius and Revisional Columna) Provat & Revisional (Polius and Revisional Columna) Provat & Revisional (Polius Revision	
Processing Activity			
Processing Responsibility			
Resumment			
Software Technology			
User	~		
Teg	~		
		(< <   Page 1   ) → (C) = 20cm 10 C) elements	1-4

Tivacy Manag							0	0 🖸
Home 4				0 6-11	14	Q *		
Iters	**	Search results						
14	^	Greet User: TELLA Pushoa Leeta	x) (Tag: Rental Car x)					Navigate
Processing Activity			Object					Object type
r.	^	Email Marketing					P	rocessing Ac.
TELLA Pushpa Leela	tophe	Comment : Erreil marketing is the act of Pound as Common, Comment Reader,	A service a pointwick reason, bothery to a group of sector using period; in its broken canal, every enail set to a point or current current out the considerat enail preview) of the formation of bother and the considerat enail preview).					
6	^							
Booking								
Car repair								
For Review								
Hotel								
Pentik Car								

The filter panel on full search results will display dynamic list of facets which means that as soon as the user searches using a keyword, only the filters related to that keyword are shown.

Visibility rule followed:

MEGA

Filters with non-zero results will be displayed to the end user.

All the filters selected by the user are shown on top of the results page as tags allowing him to remove them easily from the results page.

HOPEX Privacy Managem	ent	# Enal 0 Q v			18		8	1	G
Hane <			0	41×100×	10	<b>•</b> •		۵	E,
Filters	<<	Search results							
Туре	^	Treal (Type Processing Activity x) (Litter TELLA Pushca Leas x) (Tag Carrepar x)						Nav	igate
Processing Activity		Diget						Object	type
User	^	(a) Email Marketing					8	nocessir	ng Ac
TELLA Pushpa Leela  de BELLEGARDE Christopi		Commer: Final marking is madered another proving a commercial message lysicity that group of stepses using permit is no housest sense, way vesial sents a powersial incomer conteness countered contenes and personals Found in Commer Contenes Preport Date							
Tag	^								
Booking									
Car regain									
For Rovew									
- Hotal									
E Rents Car									



Currently you can see predefined Filter groups that are Object Type, User & Tags for a list of search results but in the next update we will be considering some other important filters which will be displayed according to the search keyword that you entered.

Added an image whenever you have zero results page to let the user know that the keyword entered is not available.

HOPEX Privacy Management # poolet I	0 Q ~	
Accest 4		C freidre <u>w</u> 🗆 - 🔟 💩 🕅

Handling access rights

MEGA

## 

If the user doesn't have access to certain objects, then a message is displayed to the user to let him refine his search as he doesn't have access to see the selected filter objects.

HOPEX Privacy Management	≓ mega 0 Q.(~ ♥ 3 0) E	
Accueil 🔫		2
Filtres <<	Resultats de recherche	
Туре	Type Pindole at Naropare	
D 0g-Unt	Digat Type disayst	
🗋 Organizational Process		٦
Package		
Perspective		
Portíbio		
Position Type		
Predefined Address		
Principle		
Property Type		
	<u> </u>	
	Vous navez pas acces a ces resultats de recherche	
	Modifiez vos fitzes.	
Environment		
Rok		
□ Plak Factor		
Risk Tjpe     Scenario	(K <   Fage 0   )   Ø   Monter 50 C elements	

### **3.2.1.** Full search with dynamic filters

The full search will now have more search filters according to the keyword the user entered. When the user doesn't have access rights to view the object or if the search results end up with zero results then appropriate image is displayed to end users in order to guide them in their search journey.

Pillara		bank weaks	
Object type	-	(target and a second target a) (target and a second a sec	(Recipite)
W months from		- Figure 1	Rest and
Cloud Camputing	-	A Payment mapsile processing	Approximity System
W Infanas		Larg sets 1 4007 Jupiteties Infection Archite Merganies Rollins Report equilibrium by	
Line .		Rend & suiturer McCenery on Tues Tep Dout Desurg)	
C remain .			
C Transe			
C ree			
W			
C iv			
(C.e.e.			
C advantation			
14			
8 occurrence #			
Application Taxe			
		Contraction of the Statement	

Technical info: We now have an ability to add other attributes either standard or custom as search filters by just making them as indexable attributes.
# 3.3.. Autosaved Indicator

When you are in public workspace where the system saves your modifications without obliging you to save, we will have an indicator on the top toolbar to let you know when the system saves your modifications.

This indicator will be displayed on top toolbar to indicate when it was last saved. This will allow them to assure that their modifications are not lost & the systems saves their changes.



# **3.4.. Diagramming improvements**

#### **3.4.1.** Ability to maximize/Minimize diagram panel

We will now have the feature to maximize or minimize diagram panels, if you ever want to view or edit the diagram in full screen mode without distracting with other panels.

This feature is also available when you are in mutli view mode with many diagrams opened as tabs in middle diagram panel.



Construction
 C



MEGA

I. AS-15::1. Process BPHN:Car Pickup ( Organizational Process) T Car Pickup (1. AS-IS::1. Process EPMN) - Organiza Reduce B / ⊻ ∿ • ∧ • E 📕 ∃ 🖬 0 0 0 3 + · 0 0 A Distance in Lines 🗧 Car Pickop 0 8 55 Centring Car Resonations Perchadule An Existing Re-2 m N N 1 + 1 N N + 2 m N N + 1 N N + 1 N N + 1 N N + 1 N N + 1 N N + 1 N N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + 1 N + III Rented Car ...... ð

1

#### **3.4.2.** Ability to insert a new activity within a sequence

You can now add an operation in a sequence flow then it is added automatically. You can either place a new activity on top of the sequence flow or you can replace the existing activity to make connections automatically.



#### **3.4.3.** Add or remove empty space in the Diagram

We now have new functionality to Push objects in a quadrant to make some space to new objects while modifying an existing diagram. This feature will allow the end user

# **MEGA**

to edit their diagrams faster by just making the space in between objects without moving one by one.



### 3.4.4. Automatic Page Add

when you place objects out of the page limits then the page is automatically added without asking the user to add page while modeling. The system will display preview of adding a new page when you place an object outside the current page limit. As soon as you leave the object, the new page is created.



#### 3.4.5. In place edit on diagramming objects

The edition of diagramming objects is simplified by removing the long clicks and just double clicking on the text will take you to edition mode. When new object added to the diagram, the cursor is placed directed inside the cell to let the user edit the name instead of loading them with couple of popups to enter the name.







#### **3.4.6. Drag & drop objects from the toolbar**

The diagram creation is simplified but adding a new feature where user can now drag & drop objects & shapes from diagram toolbar inside diagram edition tool to create objects. This will reduce number of clicks and simplify user interface.

When you create objects without any wizard proposition then as soon as you drop objects your cursor is pointed inside the object created to edit the text (Example,

# 

create business process or organizational process). The same behavior applies for objects dropped from the drop-down menu in the toolbar.

For the objects where the user should enter more than one mandatory field, then the in-place edition is not proposed but instead a popup appears where user should fill the fields which are required to create the object.



# **3.4.7. Select link popup is only shown after dropping an object**

The Select link popup will be proposed only after dropping the graphical element, if users do not select the link after dropping then the "sequence flow "should be selected by default.

Add screenshots

Before, when an organizational process is selected from intellibar, the link selection popup will not allow you to add an organizational process. If users do not select the link after dropping, then the "sequence flow "should be selected by default.



Available option :

💷 🗌 Activer le choix du lien lors d'une création via l'IntelliBar

#### 3.4.8. Diagram grid

The grid on the diagram is not visible by default to make the diagram editor clean & readable but the user can always add grids on the diagram editor if needed.

	€ @ 1 mm v	
SOHO	💿 🗖 Diagram editor grid	
installation	Diagram editor grid spacing	
Data Exchange		
	Page orientation	
	O System ✓	
🛢 Repository	Pages size	
<b>O</b> Queries	🕭 System 🗸	
P Languages	Font	
🞯 Workspace		
📾 Text Edit	Notification on opening automatically modified diagram	
Disersms/Edit Change	Status indicators visible for new diagrams	
Diagrams/ Edit Shapes	Authorize graphical shapes to be inserted in pools	
🖬 🌇 Web Editor	Style of bridges	
	Semi-circle 🗸	

Options	2 × .
	€ @ 1 mm v
SOHO	💿 🗆 Diagram editor grid
🕈 🚞 Installation	Diagram editor grid spacing
🖬 🛑 Data Exchange	
	Page orientation
Documentation	System ✓
Repository	Pages size
Queries	System ✓
🖬 р Languages	Font
Markenace	Arial, -11,0,0,0,400,0,0,0,0,3,2,1,34,
workspace	Notification on opening automatically modified diagram
Text Edit	
🗖 🖮 Diagrams/Edit Shapes	
🖬 🔝 Web Editor	Style of bridges
🖪 💳 IT Portfolio Managomont	Semi-circle ✓
	OK Cancel Apply

## **3.4.9. Diagram creation wizard**

MEGA

When there is only one diagram type then it will be selected by default without asking the user to select it in the diagram creation wizard.



#### **3.4.10.** Intelibar on links are simplified

We made orthogonal as default link and hidden the intellibar on links so that it doesn't hide other objects in the diagram. There is an option if the client really wants to see the intellibar on links. By default, this option is not activated.





Options	~ ×
Options SOHO SOHO Installation Data Exchange Documentation Repository Queries Languages	<ul> <li>Intellibar: number of buttons visible by default</li> <li>6</li> <li>Activate IntelliBar in the Web interface</li> <li>Zoom level on opening</li> <li>Default (100%)</li> <li>Smart guides</li> <li>Image Format</li> <li>SVG</li> <li>Activate the choice of the link when creating via the IntelliBar</li> <li>Activate the IntelliBar on links</li> </ul>
<ul> <li>Workspace</li> <li>Text Edit</li> <li>Diagrams/Edit Shapes</li> <li>Web Editor</li> <li>TE Partfolio Management</li> </ul>	
	OK Cancel Apply

#### **3.4.11.** Gateway predicate on diagram edition mode.

To have a zone sensible to add predicate directly in the diagram. Added an indicator and on double click will place the user's cursor inside so that he can enter the text.

With this improvement you can edit the predicate text directly in the diagram rather than going into the property page.

# **3.4.12.** Color selection of diagramming objects is simplified.

# 

We simplified the color selection in diagram edition by proposing the standard color palette colors and then there would be "more colors" where user can either enter hex or RGB code if he has them on hand or just choose the color he wants to use on the shapes from the colour palette.



## 3.5.. Floating toolbar icons

The diagram concerning icons in the floating toolbar will now only shown when the type of items has diagrams. If the items never have diagrams, then the icons will not be shown.

IEX

#02A3BD 2

G

163 189 188 98.5 74.1 100 OK

0

⊟ ×

# MEGA

Home / AttProcessing Activities 4		0	tiv av	🖵 🖌 💷	AR
List Hierarchy View					
Processing Activity	Processing Activity Perpose		Legel Entity	Department	Data Protes
Accidents and diseases management		HD-FN-1	XCorp HQ	Finance	Data Contr
Company car fleet management		DH-TS-1	XCorp China	Technical Supp	Data Contro
Disciplinary Measures and Conciliation		CH-T5-2	XCorp China	Tectnical Supp	Data Contro
Cmail Management		HQ-(T-1	XCorp HQ	Information Tec	Data Contro
CrostMarietry 🛛 1			XCorp California	Marketing	Dete Contro
Employee training Management Properties		CH-15-3	XCorp Okina	Technical Supp	Data Contro
Employees Costs Management		HD PN 2	XCorp HD	Finance	Data Contro
Employees evaluation process support		HD-172	XCorp HD	Information Tec	Data Contro
Pinancial Reporting		HQ-Ph-3	XCorp HQ	Finance	Data Contro
Help Desk		DH-T5-4	XCorp China	Technical Supp.	Data Contro
If Logs Management		HQ-(T-3	XCorp HQ	Information Tec.	Data Contro
IT systems administrators		HQ-IT-4	XCorp HD	Information Tec	Data Contro
Payrol Managament		HD-P% 4	XCorp HD	Finance	Data Contro
Paysips and fees preparation		HD-HR-1	XCorp HD	Human Resourc	Data Centro

≪ < | Page 1 of1 | > ≫ | 2 | Snow 50 0 elements

# 3.6.. Calculated attributes UI

## **3.6.1.** Columns with calculated attributes in Lists

										۳ 🖲
Local name 🕇	Project Manager	Planned (Hours) •	Worked (Hours)	Remaining (Hours) •	Budget	Status	Remaining (Days) 🔸	Worked (Days) 🔹	Planned (Days) 🔸	Planned Project Nature
O-Internal Projects	CEDARD Christo	664	4483	539		Opened	68	561	83	Root
Generation Functional projects	CEDARD Christo	2390	2696	0		Opened	0	337	299	Root
Industrial projects	GARNIER Pierre	96	0	96		Opened	12	0	12	Root
Platform projects	CEDARD Christo	8898	8078	1208		Opened	151	1010	1113	Root
V4 - Training	CUILLERIER Fra	0	0	0		Opened	0	0	0	Documentation (Doc)
□ ④ V4 - Doc	CUILLERIER Fra	1788	945	911		Opened	114	119	224	Documentation (Doc)

										⊜ ▼
Local name 🕇	Project Manager	Planned (Hours)	Worked (Hours)	Remaining (Hours)	Budget	Status	Remaining (Days)	Worked (Days)	Planned (Days)	Planned Project Nature
□ ④ x V3.0 - Doc	CUILLERIER Fra									
🗆 🕥 x V3.0 - Training	CUILLERIER Fra	JILLERIER Fra								
WEB API	GIBELIN Laurent									

# **3.6.2. Property page with calculated attributes**

1

Select an of	hrzóba 🗸	Field aligns	2 4 4					ų.	000
tune / Al Approxima / #16Con	Danshment Chart Dat				4.5		0		
) term				8 T	#16 Case Exclorent Client	t Denn (CPLETR)			×
Lood name T	HT Carle (HC) \cdots	Crane 10 (NC)	Text.	Colle	Daracteristics - Character	enetica +			10
#16 Case Errichment Cherz.		4d290cfa-000c-	🔹 3 thars	F2034	CotownE			~	
(MARC/GES/COS) - REMPL.	A1387	585x776c 298	😭 3 Stars		APM - Technical Efficiency:	1			
Asp (T)		attorna-cad	🔹 3 Stars		Colden Issuer	KEAR			~>
d COM ste estitutioned AL	A6057	2:599233-5#97	* 0.5tw		APR - Business times:	1			
A NET (T)		storest-	· 3 Shars		Content of Busics	1			
1 ASK IT (99)	A7089	84af2x16-0000.	• 0 that		Application Templeter	24			
1 CV2 (FR)	A3159	#7b3cbd4c247.	🔹 0 Shar		Deployment Date:	8			
1 Data Warehouse (FR)	A3150	00783791 berb.	* 0 Star		Operating Application Date:				
a 1051(FR)	A5619	90110143-0004	• 0.0ter		+ Responsibility				
1 Dynamics (FII)	A6205	aebiliani 51:3-	• 0 that		Clobal ID (SG) Arcsoch	-d0x-480-5306-4700082ation			
1 Experies (F#)	A6997	145380e3-2546	• 0.5tw		MT Code (SQ): 2 stit con				
1 Festure Sill	ASET	General Auto-	• à that		Mappil Code (SG):				
A 1475-000	48734	1173486.7364	+ 0.00e		Authentication (56):		*		
1 1000001.000	Autorit	AND INCOME.			Authentication by Sogepean Un	ipess sertificate (SC)			
					then Label (30): CPUIDA				
· · · · · · · · · · · · · · · · · · ·	COAL &	Contraction Cont.			#10 Application Adr		~		
<ul> <li>sort sam (sat)</li> </ul>		ADMEDICLI-JURY	<ul> <li>0.20%</li> </ul>	_	810:		~		
1009 PRO (FR)		.4e015(2e-0614	<ul> <li>a bim</li> </ul>		Number of users:		~		
10 Accounting Sube (FR)	Ab585	665#945b.24/1.	🔹 0 Star		Local ander (SG) KENN FOR	ia .			

# 3.7.. New centralized color palette

We introduced different types of palettes in HOPEX interface so that all the solutions are homogenous in all solutions and the reports will be beautiful & readable.

By this improvement, it is easier to update color palette on different areas in HOPEX.

Below are 7 type of palettes introduced

1. Desktop Palette

MEGA

- 2. Report Palette
- 3. Indicator Palette
- 4. Gradient Palette
- 5. Frequency Palette
- 6. Ranking Palette
- 7. Home page Tiles Palette

The palette used in the desktop is the standard color palette that has been used wherever we have color picker in the application. In V4, desktop & reporting palettes are both same.

# 

The palette Indicator, Frequency, Ranking & Gradient are normally attributes where the colors are proposed to indicate a value.

We introduced new field called as "Palette color identifier" which will list you to choose different types of palettes available according to the need.

This improvement will allow us to change the color palette easily and all the attributes which use the palette concern will be automatically updated without much effort.

#### **3.7.1. Updated color palette of the desktop**

Universal desktop V2 is updated with new color palette colors which includes, text color, buttons, headers etc will now aligned with reports & attribute colors.

et Catalogs / Applic	ations <		-				G hilde	~ <b></b>	✓ E ₂
All Application	s 🗸 🛞 New								
0	Local name †	Current State	Global Expense	Current Num	Cost per User	Ra	nk	Tech	nology Con
🗆 🛃 A pour Te	st-A		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 AA			€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 ABCMaste	r		€1,644,000.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Account M	lanagement	<ul> <li>Production</li> </ul>	€47,800.00	250	€191.20	🖈 0 Star		Accepted	
🗆 🛃 Account P	ayable		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Accountin	g Link	<ul> <li>Retired</li> </ul>	€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Accountin	g	<ul> <li>Production</li> </ul>	€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Accounts		<ul> <li>Production</li> </ul>	€0.00	0	€0.00	\star 0 Star		Unknown	
🗆 🛃 Account		<ul> <li>Retired</li> </ul>	€0.00	0	€0.00	🖈 0 Star		Prohibited	
🗆 🛃 Advisor C	lient		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 AgencyIn	egrator		€2,943,540.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Algorithm	ic Trading		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Analytic D	ashboard		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 APPCO.co	m		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Applicatio	n SCM		€0.00	0	€0.00	🖈 0 Star		Unknown	
🗆 🛃 Applicatio	n Support		€0.00	0	€0.00	🖈 0 Star		Unknown	

#### 

## **3.7.2. Updated color palette of reports**

Pie Chart Data





#### Impact/Likelihood

	Rare	Possible	Likely	Probable	Certain	Sum
Very High	0	0	0	0	0	0
High	0	0	0	0	0	0
Medium	0	0	0	0	0	0
Low	0	0	0	0	0	0
Very Low	0	0	0	0	0	0
Sum	0	0	0	0	0	

Page: 161 / 200



## **3.7.3.** Indicator type colour palette

All attributes which are type indicators will now have same colors making the colors homogenous.

Company Standard	
Prohibited	~
Approved	
Accepted	
Prohibited	
Unknown	

#### Priority



Risk Mitigation	
Very High	o ~
Very Low	
Low	
Medium	
High	
Very High	
Unknown	

MEGA

#### 3.7.4. Automatic Conversions

All Meta attributes type indicators are now converted to use new color palette of type indicator. Approximately 1200 attributes are converted.

## **3.8..** Home page tiles improvement

Home page tiles UI is improved on all our solutions. Revisited default tiles shown on each profile.

By default, tiles would be shown in medium size & always center aligned. When user tries to add new tile from add menu, then the tile will in one colour but after refreshing or revisiting the home page again, the tiles are automatically calculated to alternate colours.

The functionality of small tiles is different compared to medium & wide tiles so, from V4, the standard small tiles will always be shown in different colour.

• Below is the default size of the tiles delivered by the solutions in HOPEX customizer. We made all the list tiles by default to Medium, so this way there is no need to modify the default size to medium by each solution.

Tile type	Default size
List	Medium
HTML Formator	Large
Standalone	Small

• Below are the default size of the tiles when the user adds objects to their home page



Tile Туре	Default size	Action
Document	Medium	Click to open the document
Generic Object	Medium	Click to open the object
Diagram	Large	Click to open the diagram
Create a new object	Medium	Click to create new object
Report	Large	Click to open the document



# **3.9.. Simplified Excel Import UI**

Excel import will now propose available templates to the user, so that he can download them & then upload the file in single click.

If the user encounter errors after importing, then the errors would be displayed



🗄 Excel Import - Import File Selection	× ×
Language English     Date Format: YYY/IM/DD	
Download Template	^
Business Capabilities Template     CAST Highlight     Concept Template     Date Encel Template     Hardware Functionality Template     JBM Template     Organizational Process Template     Projects Template     Technical Functionality Template	
Excel Import File	^
Upload file should not be more than 50 MB, Only the .xls, .xlsx file types are allowed.	
Excel Import File:*	Browse

The import process is now completed. Ple	ase open the result file to	access to the impor	t report, and see errors.	
	Open Re	port File		
<i>i</i> orksheet "_2": 1 error(s) occurred <i>i</i> orksheet "Sheet1": 1 error(s) occurred				
			Previous (Import) Do	one Anyway Cance

# 3.10.. Universal desktop stylesheet with New UI

• Added states to visually communicate the status of the component& these states are applied consistently across the platform components to increase the usability.

Previous Import OK Cancel

#### ) MEGA

we will now have clear state to indicate different status. Example, when the user place his cursor above an interactive element, then the element is shown differently.



• Selected and activated states are also implemented to communicate well to the user.

Disciplinary M	leasures and Co	onciliation					×
					Status:*	🙆 Live	~
Overview	Legal Basis	Details	Regulations	Preassessment	DPIA	Action Plans	
<b>i</b> Specify the ground sta	e legal basis of the ating the legitimacy	processing act of the proces	tivity and provide as sing activity.	attachment any relev	vant docum	ent. This is the legal	×
Contractua	l Necessity			aw Enforcement			
Vital Intere	est		<b>I</b>	_egitimate Interest			
Public Inter	rest			Specific Consent			

• Hamburger menu: Removed lines between each menu item & increased the size of the icon when hamburger menu is expanded. Fixed text alignment issues.



• Top toolbar width is decreased to make room for lists in the panel

MEGA



• Enhanced the Ui on Add tiles menu to show white icons



• Scrollbar width is increased so improve usability & the scroolbar will be shown on focused panel.



						<u>-</u> P
Privacy Management	₽		● Q   ~			Autosaved 🔖 🛞 🕐 🕞
Home / Data Categories / Bio	ometri	ic .				S 6*l#* 💉 🖓 🖓 🖓 🚨
~	٢.	List Hierarchy View				
삼 Home		• New				T
🕐 Dashboard	C	Data Category Name 1	Retention Period	Risk Scale	Sensitive Data	Description
📲 Key Elements 🗸 🗸	C	Biometric		▲ High		Data derived from somatic or behavioral characteristics of the person (eg graphometric
Data Categories	C	Contact	1 year	▲ Medium		Data allowing direct identification, such as personal data (for example: first and last na
🖉 Data Subjects Categori	C	Cookies and System Logs	2 months	▲ Medium		Data automatically generated when browsing websites and using IT systems.
Sensitive Activities	C	Data Category-1				
🟦 Supervisory Authorities	C	Financial	20 years	▲ High	0	Financial data such as salary, bank account details, credit card number and similar
<b>∵°</b> Transfer SafeGuards	C	Golden Data	1 year	▲ Medium	0	Strategic data that participates in the definition of "master" data (reference or legacy d
昂 Countries Adequacy	C	Health	1 year	▲ High	0	Data generated by devices or applications used to gather a data subject's state of heal
🛱 Security Measures	C	) Judicial 🗈 🗄	10 years	▲ High	0	Data that may reveal the existence of certain judicial measures subject to registration
تِنْ Technologies	C	Sensitive	1 year	\Lambda High		Data that can reveal racial and ethnic origin, religious or philosophical beliefs, political
Physical Archives						
🎥 Organization						
Record of Processing						
🎄 Data Subject Managem						
🗓 Personal Data Breach						
Regulations	ł.					
Favorites						
• History		<pre>&lt;&lt; &lt; Page 1 of 1 &gt; &gt;&gt;</pre>	C   Show 50	elements		Displaying 1 - 9 of 9 Pag

MEGA

• Third level menu UI where we fixed the alignment & made the tiles height auto sizable. This will allow to fit the long texts to improve readability.

HOPE	<b>K</b> folio Management	#	● Q   ×		Autosaved 🏷	8	2	D Pa
Tra	ansformation / Project Portfolios	5 🔮	្រុ	⊷\%	∧* 📮 ×	Ð	<u>۵</u> (	
~	Project Portfolios							
<b>*</b>	Project Portfolios	My Analysis Portfolios						
		Portionos						
£,	Transformation Portfolios Displays the list of Project Portfolios	Displays the list of My Analysis Portfolios.						
•								
4								
۲								
₽								
•								
$\square$ >								
2								
/#4								
7								
$\mathbf{A}$								
$\sim$								Pag

HOPE.	<b>X</b> tfolio Management [≓]		③ Q   ~				Autos	aved 🦷	• 8	?	C ·
E Ap	oplication Architecture / Functional Arc	chitecture <				S hild	$\mathcal{M}_{i}$	<b>—</b> ~	Ð	ఉ	
^	Functional Architecture										
"											
	Hierarchy View	Global Application Flow Maps	Application Environments		System Processes	Information Services Catalo	ogs				
4											
\$	Displays a hierarchy view	Display the list of global application flow maps	Displays the list of application environments	Displays the list of aplications of the repository with several filters according to your profile.	Display the lists of system processes	Displays the list of Inform Services Catalogs	ation				
<b>8</b> .2											
4	TT Sanvicas	Micro-Services	Eunctionality Mane	Eunctionalities	Service Coverage						
æ				• I directoriances	Matrices						
	Displays the list of IT Services of the repository with several	Displays the list of micro- services of the repository with	Display the list of Functionality Maps.	Display the list of functionalities	Displays the Service Coverage Matrix report						
<u></u>	filters according to your profile.	several filters according to your profile.									
Θ											
<b>-</b>											
· ·											
/Щ											
7											
*											
~											Pag

- Font is changed to Verdana all over the interface including diagraming & reports
- User info menu padding is decreased & the background image has been modified.

	Autosaved	* 20	8	?	c	F
Derf	TELLA F	Pushp	a Lee	ela		
Repo	ository: SOHO	Jilai Aum	inisti att	1		
Envi	ronment: EnvTe	stsLab_9	00_000	_tst_55	60	
0,	Switch Profil	e			>	
B	Save					
ŀ	Logout					
ф	Import				>	
₫	Export				>	
$\odot$	Scheduling N	1anager	nent		>	
	Set Current	Library				
8	Mapping Edit	tor				
	Advanced Qu	uery				
*	English				>	
в	HOPEX V2R1	Style			>	
Ô	Settings				>	
ĥ	Community					

MEGA

- Treelists design improvements
- Background images are changed on all solutions..etc

# **3.11.. Explorer desktop is now inherited from V4 desktop**

The look & feel of the explorer desktop is changed as of the universal desktop of V4. This will allow us to have only one global desktop & all other desktops inherit from the parent desktop.



# 3.12.. Display filters on top of the lists by default

You will now have an option to display filters on top of the lists. By default, this option is not selected. But if the user wants to have filters on top of lists, he can choose this option.

# MEGA

	🛃 All Applications 👻 💮 New 🛛 🖸	· ·						
C	Local name †	Current State	Global Expense	Current Num	Cost per User		Rank	Technology Com
	Q	Q	= 0	=	0 0	٩	~	۹
C	🗋 🎴 A pour Test-A		€0.00	0	€0.00	🗙 0 Star		Unknown
C	AA 🌇		€0.00	0	€0.00	\star 0 Star		Unknown
C	ABCMaster		€1,644,000.00	0	€0.00	🗙 0 Star		Unknown
C	🛛 🍓 Account Management	Production	€47,800.00	250	€191.20	🖈 0 Star		Accepted
C	Account Payable		€0.00	0	€0.00	🛊 0 Star		Unknown
C	Accounting Link	<ul> <li>Retired</li> </ul>	€0.00	0	€0.00	\star 0 Star		Unknown
C	Accounting	Production	€0.00	0	€0.00	🗙 0 Star		Unknown
C	Accounts v2.0	- Production	€0.00	0	€0.00	\star 0 Star		Unknown
C	🛛 🛃 Accounts	Production	€0.00	0	€0.00	\star 0 Star		Unknown
0	Account	<ul> <li>Retired</li> </ul>	€0.00	0	€0.00	🛨 0 Star		Prohibited
C	🛛 🛃 Advisor Client		€0.00	0	€0.00	🛨 0 Star		Unknown
C	AgencyIntegrator		€2,943,540.00	0	€0.00	\star 0 Star		Unknown
6	Algorithmic Trading		€0.00	0	€0.00	🕇 0 Star		Unknown
C	🛾 🧃 Analytic Dashboard		€0.00	0	€0.00	🕇 0 Star		Unknown
C	APPCO.com		€0.00	0	€0.00	🗙 0 Star		Unknown

#### C 🔕 🗹 Silent workdesk termination 🗖 🗟 SOHO 🕭 🗹 Display a warning message when opening an uneditable diagram. 🗈 🚞 Installation Activate Explorer 🕈 💼 Data Exchange List fill mode presented by the explorer 🗈 💼 Documentation Standard Mode Standard Mode Display of button indicating default values 🖪 🛢 Repository D Querles Triggering threshold for encyclopedic classification in the navigator 🖬 🚏 Languages 200 Workspace Number of elements by encyclopedic volume 🖬 📷 Text Edit 200 0 🛾 🚞 Diagrams/Edit Shapes O $\Box$ Make the creation of predefined folders for external references mandatory. 🖸 🚞 IT Architecture Display method by default in simple or multiple mode IT Portfolio Management Simple view Display filters in the list header by default Assessments 🗄 🚞 Privacy Management Number of objects displayed per page in the lists ⊕ 50 ⊕ Display stereotype of UML objects in navigator 🖪 💁 Status Indicators 🖬 📀 Collaboration 🖸 👸 Modeling and Methods Regulations Display of texts when exporting to Excel

Entire text mode Business Process and Architecture modeling

#### 3.13.. **Other improvements**

~

#### **Reports** 3.13.1.

Multiple borders around the reports are now removed & new UI on refresh, actions buttons



#### 3.13.2. Autosaved Message

MEGA

To assure the user that the system is saving their changes automatically, we now display AutoSaved message on top toolbar & on hover you will see the last saved time stamp.

HOPEX =	● Q   v	Autosavet		8 0	
ilome / Applications / Account Management	O the law	11	. Feb 12, 2020	), 5:05 PM	ØΫ

#### 3.13.3. Filters on lists

Filters on lists will now have a new option to search items that doesn't contain with the keyword entered in the search filters.

e /	All Processing Activities 4								C trilde	N 🗆 V .	3
	List Hierarchy View										
0	) New 🛛 🖓 Record Scope										
۵	Processing Activity	10 🗸	Legal Entity	Department	Data Protection Ro_	Activity Owner	DPO	Sterus	<ul> <li>Creation Date</li> </ul>	Assessment Dat	e Ass
	Q	Q	α ~	Q ~	٩	٩	Q	Q	~ = 6	=	≅ Q
	Accidents and diseases management	Q. Contains	Corp HQ	Finance	Data Controller	Henry	Jon Smith	live Live	6/26/2018	11/28/2019	Pre-
	Company car fleet management	Q. Does not contain	Corp China	Technical Supp	Data Controller	Austin	Emma Clos	G Live	6/26/2018	11/28/2019	Pre-
0	Disciplinary Measures and Conciliation	O Show empty values only	Corp China	Technical Supp	Data Controller	Audrey	Emma Clos	G Live	6/26/2018	11/28/2019	CIPU
0	Email Management	Show non empty values only	Corp HQ	Information Tec.	Data Controller	Elizabeth	Jon Smith	G Live	6/26/2018		
0	Email Marketing	CA-MK-1	XCorp California	Marketing	Data Controller	Emily	Camille Dubuc	G Live	6/26/2018	6/25/2018	OPH
0	Employee training Management	CH-TS-3	XCorp China	Technical Supp	Data Controller	Edouard	Emma Clos	() Live	6/26/2018		
0	Employees Costs Management	HQ-FN-2	XCorp HQ	Finance	Data Controller	Henry	Jon Smith	G Live	6/25/2018		
D	Employees evaluation process support	HQ-IT-2	XCorp HD	Information Tec	Data Controller	Victoria	Jon Smith	G Live	6/26/2018		
0	Financial Reporting	HQ-FN-3	XCorp HQ	Finance	Data Controller	Vannick	Jon Smith	G Live	6/26/2018		
D	Help Desk	CH-TS-4	XCorp China	Technical Supp	Deta Controller	Stella	Emma Clos	Obsolete	6/26/2018		
0	IT Logs Management	HQ-IT-3	XCorp HD	Information Tec	Data Controller	Sarah	Jan Smith	G Live	6/26/2018		
0	IT systems administrators	HQ-1T-4	XCorp HQ	Information Tec.	Data Controller	Lina	Jon Smith	G Live	6/26/2018		
n	Paymi Management	HD-FN-4	XCorp HD	Finance	Data Controller	Insentine	ion Smith	@ 16#	6/26/2018		

#### 3.13.4. Ungroup default groups on lists

Possibility to the end user to group & ungroup columns on lists though the solution delivers group by default

### 3.13.5. Tags & Favorites list view

Tags & favorites are now displayed as list view to simplify the navigation and readability.



#### **3.13.6.** Minor platform improvements

• Enter key on connect wizards are now activated so that the user is not forced to click on search button as soon as he enters a keyword in the search box.

distances in the		V. 4	(*)		
	 	a farming.			
4		S Street latening 🔍 (pro	<b>3</b> 9		
4		• Lotter			
4		12 🗮 Anna Ann	anne April Int		
1.4		22 🗮 April 106-219	White April May 218		
4		D 🗮 Aperilati (10	Blackar-Mar 10		
and services		🖓 🖀 Autor Hile - 12	Million, April Artis, 31.5		
A		C 🗮 Aperiado al parte ante	REAL AND ADD AT.		
4		D 🗮 Apro Adv. All Stations	point specials (1)		
A commence		D 🖉 tarri bilan af Malaga Property	All the same billion of		
a management		0 🗮 name in the state of the later in the second state	When Ages Astronom		
4		D 🔮 Apen Antonio al Manual Reservant (1987 a	Million April Magnini,		
-		0 🗮 tam 0.0m	EDuk.Aper.Lifes		
4		0 🗮 American 43	ENAMED (+-4,		
4				-	
4			terms frank		
		1.0			



• Hyperlink when an URL is added to the text editor

Post and a second at a		• • • 0
E was division to a second		0 to be 10 to 10 to 10 to 10
ine Manufacture		Inditioning
Care Those bear		Dest Box
C Persona Loose I Personia Among Page	· I taul formy Repartment I	termine injulance intern Apparent Processors and Arter-Fact
D ALIGNA PRODUCT AND A CONTRACT OF	tiest	Initial Representing
D Stanging of het management	former land	
D begint barden transien	constant for	Person 1: darps of proceeding
District and the second s	terestas.	
0 immed at 10 M I		test .
3 and series		DOMESTIC & FOTO TOTAL B. O.A.A. S. B. B. C. I
D anotoecterrighterspress	terrorise.	Anal netwiding to fits and of sending a (content of rescapp), (condy to a prop of proph, only level), in its location area, may retail per to a period or content content content of all retained and periods or a
D - the state of the second se	Para	tim instantiali
3 Dober en el en el este de la compañía de la	Addresses Tec.	
D Handharts	Aug. 1	O and as provide preservation of the order of the preserva priority the dust capital rate of the order of
ter and an a	herea han.	Tangitis Advites
D. Pulphanpent		A finding ( ) A december provide data (
D Constantine		O perily characterized and construction a time owner is non-
D. factorization	- Annar	C # Personality C Report Personality
4 1 1 No. 1 10 1 10 1 0 10 10 10 10 10 10 10 10 1	n Dagagege-Stat St	O sand where the present of an intervention and the control and the control of the section of

• Removed "navigate/ Edit "Button on table entry of the Diagram when you are connected with process contributor or Process Viewer

risk konstal Japan 🛛 👻		18 H P Checkled	月月日 日 泉谷			
Une Enterne B		Long advantation T				
and and	 frame in	Renaution 1				
3 () teel						
2 🖬 Aperation i	line.		<	-		
D . (prime)	(process)					
Terminit	tipe minul.					
0.0 ==	figure attack (		8		· Contra	-ŏ

• Full text search suggestions will now be shown after one character

sector +				0. 10100 10	Q - 8 0
Reserves a la					
O materiana Associate experiment	1 mm	These bass has	Transition Spin	Baad Regar Earls	Beat Feet Party
B Targetest (1) I anapetent Pape Securate					
C Representation of the second	· varian	878.024	1.11.101	10.00.001.0	1.11.00-1
🗇 🗮 managementer in Stage Langes - Dataset Dig	Contract of Contract	within a	111109	#17.074	111111
C = construction		410.073	10004	435.014	Training at
# rangest/b					
🖓 🗮 Angele Links on Projects Link Management		61.079	10.010.0018		
C T And the day of the local diversion of the	· vieto -	1.1.1016	the state of the s		
() The analysis of again instants		10.000	11/10/1014		
0 2 0414144		17/10/10	0.10.1018		
0 T service menty allester		1.1.029	ri-north		
# tepcent)					
🗇 🕱 Antonio sponor riprovini		100319	4.01014		
8 Tracket (1)					
🗇 🗮 Arrad men di proven minut		24/201	1010102-0		
🗇 🗮 their means to with the all		11,000	10000		
C T Straige with chartest terms	and the second	4.4.000			

- Save automatically the last order of the columns that user changed
- Migrated to extjs 6.7



• Customer journey map will only propose tabular entry & graphical entry will be hidden to the end user to make it easier to the basic user.

	news pany / laten mouse if this part (or	nag i Spinchulag Summerica, i Antochulag is	alitie begreen intergetieten für	tere incorpiles			0.61	A	W	1 Bb.
	mailt survey prik."	ang tan."								1
	No. No.									
	See Serence	7								
	e ment me	4441								
-	C C Attentions	A		Summer Real	100			A12		
12.	0 % had			and the second s		1000	2001	22 - I	505 (BB)	
	0 % beter new			a second	A					
	D S Lineappener	+								
						1000				
							1	-		
									7	
					14					
					-	0.00		410	202	
						200		200	1983	
						800		100	1521	
	1	172								
		D little at 1 streams that								

- Default action buttons should be shown after unselecting an object in the list systematically.
- Collaboration menu items which are less than 5 items are now shown as tabs instead of dropdown lists to make it visible to the user.

HOVE				• • • •
Ξ	Manager   Childrenton Service   My Nowy Solar   Stud and		D Nober A	원 후 · 圖 수 제
*	Interference instant. Annufactured instrument.	filmed .	Could Madering	•
4	O TELA Portanian			546- 8-4 F
	The second		inners reprints form Replaces Association (P.S.	Anima Plana
-		•	Carly Compliant Carlot Carlot Carlot	
a			Contraction Contraction	I
2			Proceeding statistics	
			Annual and high	
12				
•			Lage beign	
2			- 0000 g	
8.1			(and final actions final actions) and the second se	2
			SPD DPS Departy	
4				
-			Indianal Representation	
•			Ansam in damps of processing	

• If library & owner fields are not used in a solution, we will now have an option to hide them to end user. This should be possible to hide on Desktop level.

)wner:	Business Process	11 Company			
			sation & Benefits	>	
				-	
				P	
			OK	Cancel	
			UK		
			UK (		
15. ITS Market	ng Program	1			
15. TIS Morket Characteris – Identifica	ng Program tics 👻	1	ŪK		
15. HS Merket Characteris – Identifica Name: 15	ng Program tics 👻 tion				
15. 115: Metract Characteris – Identifica Name: 15 Dwner: EA	ng Program tics 👻 tion . ITS Marketing Program . Project V HCM V				
Lot HSI Merker Characteris – Identifica Name: 15 Owner: EA Code:	ng Program tics  tics tion TTS Marketing Program Project HCM				
IST IIST MERKOR Characteris I Characteris I dentifica Name: 15 Owner: EA Code: EA	ng Program tics  tion TTS Marketing Program Project				

• Activated autocompletion in share wizard when you share an object to others

		share top climants / buts Caregorer' as small 🛛 🕄		
2	Courses	Service	Republic Rep	
		Tergene (a sum) (a "Buchmarian") (a fam)		
		•		
		Technik a percent manage with No. algori		
1				

# 4. Reports Improvements

# 4.1.. Default colors

Default colors of all reports have been changed according to the new report palette. Some adjustments have been made to improve the readability of the reports

# 4.2.. Pie Chart

MEGA

The default appearance of pie charts is changed allowing the display of the number of elements represented on the chart

Minimum and Maximum size have been fixed. Text color is automatic depending on the pie color.



# 4.3.. Tables and Matrices

□ 1. Active Third-Parties

Third-Party Name	Processing Activity	Raw Risk	Compliance Level	Last Assessment Date
Deloitte	Disciplinary Measures and Conciliation	Å Very High	⊘ Almost Compliant	11/28/2019
Salesforce	Accidents and diseases management	🕂 High	🥝 Poorly Compliant	11/28/2019



#### 🗆 1. Data Subjects' Rights

*	Access	Deletion	Objection	Portability	Rectification	Restriction	To be forgotten
Accidents and diseases management	•	•	•	•	•	•	•
Company car fleet management	•	•	•	•	0		0
Disciplinary Measures and Conciliation	•	•	•	•	•		0
Email Management			•	•	0		0
Email Marketing		•	•	•			0
Employee training Management		•	•	•	0		
Employees Costs Management		•	•	•	•	•	
Employees evaluation process support		•	•	•	0	•	
Financial Reporting		•	•	•	•	•	•
Help Desk	0	•	•	•	•	•	
IT Logs Management		•	•	•	•	•	
IT systems administrators		•	•	•	•	•	
Payroll Management		•	•	•	•	•	•
Payslips and fees preparation			•			•	
Performance Management Process		•	•	•	•	•	•
Performance Management	0	•	•		•	•	
Physical Security and Video-surveillance		•	•	•	•	•	•
R&D Planning			•	•		•	
Recruit Employees	•	•	•	•	•	•	•
Recruitment and employment management			•	•	•	•	
Recruitment and staff selection	•	•	•	•	•	•	•
Support Process							

# 4.4.. Bar Charts

Direction of the grid lines has been changed according to the bar direction
#### $\square$ 1. Top 10 most expensive applications



# 4.5.. TreeMap

Size is displayed in % in all cells

Text Size is proportional to the Cell size



# 4.6..Graphs

Can be displayed in 2D or 3D





New option to ungroup all arcs



# 4.7.. Sticky Header

The report header always remains available so that actions on the report are always accessible.



# 4.8.. One Button "Refresh"

The ability to refresh each chapter of the report independently is no longer offered. The entire report can be refreshed with a single button.

# 4.9.. One Chapter Report

The display of a report with only one chapter is simplified, as the chapter title no longer appear.



# 4.10.. Empty Reports

The appearance of empty reports changes in the same spirit as empty lists to provide a clear visual to the user.



The report is empty. There are no data to display because the dataset is empty !

# 4.11.. Instant Report Table

The column content is now grouped by default given that this is the most frequent need:

Table Columns						
- 🛛 Application					Name:	Applicatio
- 🛛 Rating					Sort:	Ascending
<ul> <li>Technologies</li> </ul>					Sort Priority:	1
Vendor					0	
- 🛛 Cost					Group:	Yes
Number of users					Value Computation:	
					Data Source Item:	Applicatio
enerate	G					
Technologies	Rating	Technologies	Vendor	Cost	Number of users	
Technologies  Application	Rating	Technologies	Vendor	Cost €0.00	Number of users	
Technologies  Application	Rating	Technologies           INET Framework 3.5 SP1           DB2 v9 7	Vendor S Microsoft	Cost €0.00 €0.00	Number of users	
√ Technologies   Application	Rating	Technologies .NET Framework 3.5 SP1 DB2 v9.7 Office 2003	Vendor S Microsoft S IBM S Microsoft	Cost           €0.00           €0.00           €0.00	Number of users 0 0 0	

# 4.12.. RTF Export

MEGA

Chapter comments are now included in the result file

# 5. HOPEX Customizer

# 5.1.. Report Studio Desktop

## 5.1.1. Central Container

The complex objects such as Report DataSet Definition, GraphSet Definition are now open in the central container to give better access on component objects property pages.





## 5.1.2. View Property Pages

The set of property pages on the report view has been reduced to only one page that presents the chart settings:

Pie View - Ap	×	
E Chart V		
Chart Type:	Pie Chart	
Legend (Series):	Vendor	~
Values:	Cost	~

## **5.1.3.** Report DataSet, GraphSet, TreeSet Characteristics

The vocabulary used in Characteristics pages has been unified

#### **Report DataSet**

# **MEGA**

Application I	Data Details ×			27			
Character	ristics 🗸						
Owner:	~			>			
Name:*	Application Data Details						
User In Charge:							
Source MetaClass: Application Or Application System							
🗆 Keep last gener	ated result						
— Parame	ters						
Collection Para	meters						
				T			
Local nar	me 🕇	Туре	Populated RDS Collection	_GUIName			
💻 Applica	ation Or Application S	⊟ Application Or Ap	Application Or App	Application Or			
<     Property Param	neters			>			
Local nar	me <b>†</b>	Туре К	Format	Length F			
— Root Po	— Root Populating Query						
Name 🕇			Query Pa	rameters Name			
— Preset C	Queries						
Local nar	me 🕇		S	et Name			

#### GraphSet

ta)   Ch	naracteristics 👻					
me:*	Data Lineage Software Imp	pact Report				
— Pa	arameters					
Collectio	on Parameters					
	X					T
L	ocal name 🕇	Туре		Multiplicity		_GUIName
<b>=</b> S	Software Parameter	🗎 Class	of Enterpris	Ν		
< Property	y Parameters				_	>
( L	ocal name 🕇	Туре		Length	Format	>
— R	oot Populating Queries					
	ocel neme 🛧		Query Perame	tara Nama	Terget Mate Class	

TreeSet

MEGA

Data Li	ineage Software I [×] 🔽 ITBN	I - Enterprise S	Strat ×		2		
🖂   Ch							
Name:*							
— Pa	— Parameters						
Collectio	n Parameters						
	×				т		
La	ocal name 🕇	Туре	Mu	ultiplicity	_GUIName		
<b>–</b> S	oftware Parameter	🗎 Class of	Enterpris N				
< Property	Parameters				>		
La	ocal name 🕇	Туре	Le	ngth Forma	t F		
,	<b>&gt;</b>	<b>、</b>			,		
— Ro	oot Populating Queries						
La	ocal name 🕇		Query Parameters N	lame Target M	NetaClass		

## 5.1.4. Folder of Report DataSet are available



# 5.2.. Report Styles

MEGA



## 5.2.1. Styles

Definition of styles has been improved with new dedicated wizard:

The style creation / modification wizard allows to define the set of parameters associated to the style and their values.



Then the values or the condition can be changed directly in the style property page





## 5.2.2. Conditional Styles

Styles can now be fixed by a value or given by any of the report field:

Example: color can be given by a multivalued field, width by a numeric field ...

Style Creation Wizard - Renderer Parameters Type Value								
Name: Red Cells								
Choose the Style Parameters								
	Name		ፕ	Value:	Fixed	8 <b>Y</b>		
	table	-Colle Background Color		Cells Background Color:	Fixed	$\bigcirc$		
_	lable				Field			
	table	::Cell Text Color						

# **5.3.. Report Parameters**

## 5.3.1. Use Tree for Parameter Input

The report parameter default values definition allows to define a metatree instead of a query for values proposition.

Business processes	
Default values 💙	
Value	
Value definition:	Values are suggested
Abstract Candidates depend on:	
Value Proposition	
Short Name 🕇	
ENV - Processes Tree	



#### Then the report user will then be able to benefit from the following proposal :

Incident net loss Threshold:	0.00€	
Begin date:	6/4/2019	
End date:	G Connecting	
Risk Types	🔿 📴 ENV - Processes Tree 🔹 💊	D
Local name 1	Select sub-elements   Expand the selected items	. 1
	🔹 🗔 🝙 1. Training Program	^
	🛨 🗖 🝙 10. Meaningful IDPs	
2	- 🗆 🝙 11. Compensation & Benefits	
	12. Work/Life Balance	
	🔹 🗖 🝙 13. Awards & Recognition	
	14. Workload Analysis	
« « Page 0	o 🗈 🗖 🝙 15. ITS Marketing Program	D C
	16. Job/Career Fairs	
Business processes	🔹 🗖 🝙 2. Onboarding Program	
	<ul> <li>Image: Second sec</li></ul>	
Connect	🔹 🗖 🝙 4. Learning Management System	
Local name 🕇	Image: 5. Defined Succession Management	
	🔹 🗔 🝙 6. Manager/EE Relationship	
	🔹 🗔 😰 7. Career Development	
	<ul> <li>Image: 8. HIPO Developing</li> </ul>	
	🔹 🗖 🝙 9. Competency Management	
	• 🗋 🝙 B.1.a	
		~
« « Page 0	Connect Can	icel o c

## 5.3.2. Limits of the Reports are fixed

Limits of data handled by GraphSet and TreeSet has been fixed to avoid performances issues. When the limit is reached an alert is displayed in the supervision console and the data is truncated. The user is warned that his report is not complete. A set of options in the "Documentation/Reports" section documents the current limits and allow them to be bypassed:

Fix the limit for GraphSet Nodes:

Fix the limit for GraphSet Arcs:

Fix the limit for TreeSet properties:

Fix the limit for TreeSet Nodes:

0	1000	\$
0	10000	\$
0	50	\$
0	50000	\$

# 5.4.. Graphs

Conditional Styles can be used for any renderer including the graph with specific conditions.

## 5.4.1. Graph

Define graph populated by a

The creation wizard allows to populate the entry points of elements (nodes, automatically created.



Report

Query

define a query that will the graph. All the necessary parameters) will be

# **MEGA**

C	Creation of	GraphSet Definit	tion - TemplateSet Definition Creation	₩ ⊗
Name:*		Exchanges betwee	n application	
	— Roc	ot		
	Collection	is populated by:*	Query 🗸	
	MetaClass		Application	~
	Populating	g Query:	APM - Business Capability and Sub Business Capabilities Applications	· >
			ОК	Cancel

## 5.4.2. More Styles

Renderer	Parameter
	Width
	Node Border Color
	Node Fill Color
	Node Size
	Label Color
	Arc Color
	Arc Thickness
🍲 Graph	Node Border Thickness
	Background Color
	Node Size depends on Node Connections
	Arc Line Curvature
	Arc Line Style
	Arc Start
	Arc End
	Entry Point Coloring

## **5.4.3.** Conditional Style is available

Styles can be defined by using a field value. Example the "Node Border color" is set using the "Business Value" of the application:

Style Crea	Style Creation Wizard - Renderer Parameters Type Value						
Name:	Node Border Color						
Choose the Style Parameters							
Name	2 Z	Value:	Field	~			
🛥 Grap	oh::Node Border Color	Field:	Business Value	~			

Condition can be more complex using a text as in conditional styling in Tables Reports:



This style applies on the following condition



The conditions can apply to any node fields.

## 5.5.. Box-In-Box

This renderer is available for any Java Reports based on hierarchical Structure. This renderer replaces the previous specifics Box-in-Box implementations and offers the same data visualization features. It shows a data hierarchy with optionally a collection of items at any levels. Colors and pictograms are giving more specific information to the user.

## 5.5.1. Interactivity

- Unfold any number of levels
- Access to object properties, object menu
- Fold/unfold legend, see color details



## 5.5.2. Features

- Automatic size and number of columns
- Default Box color is fixed
- Number of unfolded levels at opening
- Box color fixed or based on an attribute
- Display of 0-5 pictogram on the boxes
- Display of 0-5 pictogram on items
- Choice of any shapes and color for the pictogram
- Items background color



• Legend

nber of displayed levels All 🔻 🗐 Unfold all	items		ß	<ul> <li>□ Legend</li> <li>□ Characteristics displayed as a thumbnail</li> <li>○ Average Level of Vulnerability ::</li> <li>○ Average Level of State</li> <li>□ Characteristics displayed as highlighting</li> <li>□ Current State</li> </ul>
Bank Capability Map				
☐ 1 Item(s) Billing v2.0				
Create Rapid Proof-Of-Concept Cycle	Create Sandbox	Crowdsource Innovation	Develop Customer as Innovator	Develop New Innovation Channels
E 2 Item(s)	⊞ 1 Item(s)	⊞ 2 Item(s)		⊞ 1 ltem(s)

# 5.6.. TreeMap

This renderer is available for any Java Reports based on hierarchical Structure. It shows a data hierarchy with areas size based on a numeric value at lower level of the hierarchy.

### 5.6.1. Interactivity

- Unfold any number of levels
- Zoom-in, Zoom-out
- Access to object properties, object menu
- Change the numeric data represented

#### 5.6.2. Features

- Automatic size and number of columns
- Number of unfolded levels at opening
- Area color fixed or based on an attribute
- Automatic gradient colors
- Multiple numeric data to compute the area



Visible levels 4	Display Numb	er of components 🔻													
Business Capat	bility Map-1														
BC-PBS-01				BC-PBS-03		BC-PBS-05					BC-PBS-07				
BC-PBS-12		BC-PBS-13	BC-PBS-14	BC-PBS-20	BC-PBS-21	BC-PBS-25			BC-PBS-2		BC-PBS-32			BC-PBS-34	
BC-PBS-39 BC-PBS-103	BC-PBS-40 BC-PBS-106	BC-PBS-42	BC-PBS-45	BC-PBS-57	BC-PBS-59	BC-PBS-67	BC-PI	BS-68	BC-PE	3S-71	BC-PBS-83	BC-PBS-84	BC-PBS-85	BC-PBS-90	
BC-PBS-104		BC-PBS-43									BC-PBS-33		_		
22.00101											BC-PBS-	36 BC	-PBS-88		
BC-PRS-105	BC-PBS-107	BC-PBS-107 BC-PBS-44		BC-PBS-58	BC-PBS-60				00.000.70					BC-PBS-91	
00103103	BC+FB3+105					BC-PBS-69	BC-PI	BC-PBS-70		00-12	BC-PBS-	37 BC	-PBS-89		
	BC-PBS-15														
BC-PBS-41	BC-PBS-41				BC-PBS-23						BC-PBS-08		BC-PBS-09	85-09	
		BC-PBS-47	BC-PBS-48	BC-PBS-61	BC-PBS-63						BC-PBS-35 B		BC-PBS-36		
BC-PBS-108 B	C-PBS-109 BC-PBS-110		DC1FD3140			BC-PBS-28 BC-PBS		BC-PBS-3							
											BC-PBS-92	2			
PC PPS 02												BC	BC-PBS-95	BC-PBS-96	
BC-PBS-16		BC-PBS-18													
						BC-PBS-73	BC-PBS-74	BC-PBS	-78 BC-	PBS-79	BC-PBS-9	3			
BC-PBS-49	BC-PBS-50	BC-PBS-53	BC-PBS-54	DC DDC 60	DC DDC 64						BC PBS 10		BC PBS	11	
				BC-F B3-02	BC-F B3-04						BC-PBS-37		BC-PBS-	38	
0.0 000 17		0.000.10				BC-PBS-29		BC-PBS-3	31				BC-PBS	100 BC-PBS-102	
BC-PBS-17		BC-PBS-19											00-FB3	100 00 PB3-102	
						BC-PBS-75		BC-PE	BS-80	BC-	BC-PBS-97	BC-PBS-	18		
DC DDC E1	DC DDC E2	DC DDS EE					BC				00-1 03-97	20100.			
80-682-51	BC-PB3-52	BC-PBS-52 BC-PBS-55 BC-PBS-5		BC-PBS-65	BC-PBS-66	BC-PBS-76		BC-PE	BC-PBS-81				BC-PBS	-101 BC-PBS-99	

# 5.6.3. Building Tree Reports: Dendrogram, TreeMap, TreeTable

A new Data Structure is available in order to build tree reports. This structure called TreeSet allow to build hierarchical report including recursive definitions (example business capability decomposition tree)

#### **TreeSet Definition in Studio Desktop**



The studio offers the capability to define treemap, Dendrogram or TreeTable Report on any hierarchy of objects.



Number of displayed levels 5 • Display criterion Number of components •

World@Hand Corporation								Н	R Departn	nent										
9	Corporate Headquater Regional								legional Headquat	er N	umber of co	omponents 7								
Γ	Pro		Customer Satisfaction Department				Logistics Depart	ment			ł	HR Department				Sal	Car Rental Department			
	Tou	Pro	C	Centro chiama Operatori	ste Spe	Tea	Logisti Car Rental Depa	ics Manager artment		Log		HR	Pay		Clo	Sal	Car Maintenan	ce Department Gar	Car	
ŀ	Finance Departr	nent		Ор	Sof	Dip	Car Maintenan Aut	Gar	1	War		HR Manager	Clo	Emp	Emp		Rental Branch			
	CFO	Fin		Ор	Sof	Dip	Rental Branch			Tra		IT Department				Sal	Bra		Car	
	Controle		Cus		Pro	Project Manager Designer				Deliver Gates		Acc	Web	Per	Off	Procurement	Car Mana	ger		
	CFO	• 1	Sat.		Sat	Cus	Marketing Depar	tment				Cus	СІО			Pur	Pur	Pur	Sup	
	GFU						Mar	Cat		Designer				Te	:C					

Any objects or properties defined in the treeSet definition can be used as filter in the report.

🍸 Org-Unit 🗶				
				Q
World@Hand Corneration	Corporate Headquater 🔒	Logistics Department 🔒	Car Rental Department 📥	📥 Rental Branch
wond@naild.corporation	Regional Headquater 青	Car Rental Department 📥	📥 Rental Branch	

#### **TreeMap Report**

All numeric TreeSet properties are used as TreeMap size

Number of displayed levels	1 • Display criterion	Cost	¥		C	••
	BIAN	Capability Map				
	Reference data (FR) Number of components 0			Sales and Services (FR)		
	Cost 2000.0	0	Ris	Business Support (FR)		

#### **TreeTable Report**

All TreeSet Properties are displayed as columns of the TreeTable.

) MEGA

# 5.7.. Chord Diagram

## 5.7.1. Renderer Chord Diagram

This new renderer is available for java reports



Excel Export is available

## 5.7.2. Tree Reports in Studio

Display any Properties in tooltips



Dendrogram Treemap TreeTable



## 5.8.. Static Website

## **5.8.1.** Dynamic Reports available in Static WebSite

All dynamic renderings such as Graph, Treemap, Chord diagrams etc... work when they are included in the generation of a static website.

				- 0	
+ 🕞 🧭 http://localhost/W	/S2/pages/c1d7c4e65cc65c57.htm		- C Search	<b>ନ</b> କେ ଛି	3 §
🚺 QA - 900 - All Documents	🥔 QA - U03 CP06 - All Documents 🛛 🙆 QA - V4 - All Documents	🥔 QA - 787 - V3 CP04 - All Docu 🥖 localhost 🛛 🗙 📑			
👍 🗔 Nouvel onglet 🔞 Duckl	DuckGo — Confiden 🟮 QA - Home 🏮 QA - Tests plans 🤹 QA - Ve	rsions and Patches 🤹 QA Val Workload 🧃 AllItems 🇃 HOPEX V2R1 Doc 📙	RM Portal 🥶 VSTS		

B 1. Graph Set Application Technologies 'a'

