WEaaS

Waste Energy as a Service

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Transformed Energy Plants

Smart Network that takes

advantages from more

advanced information and

communication technologies to

improve the quality of live and

citizen welfare…

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Plants Features

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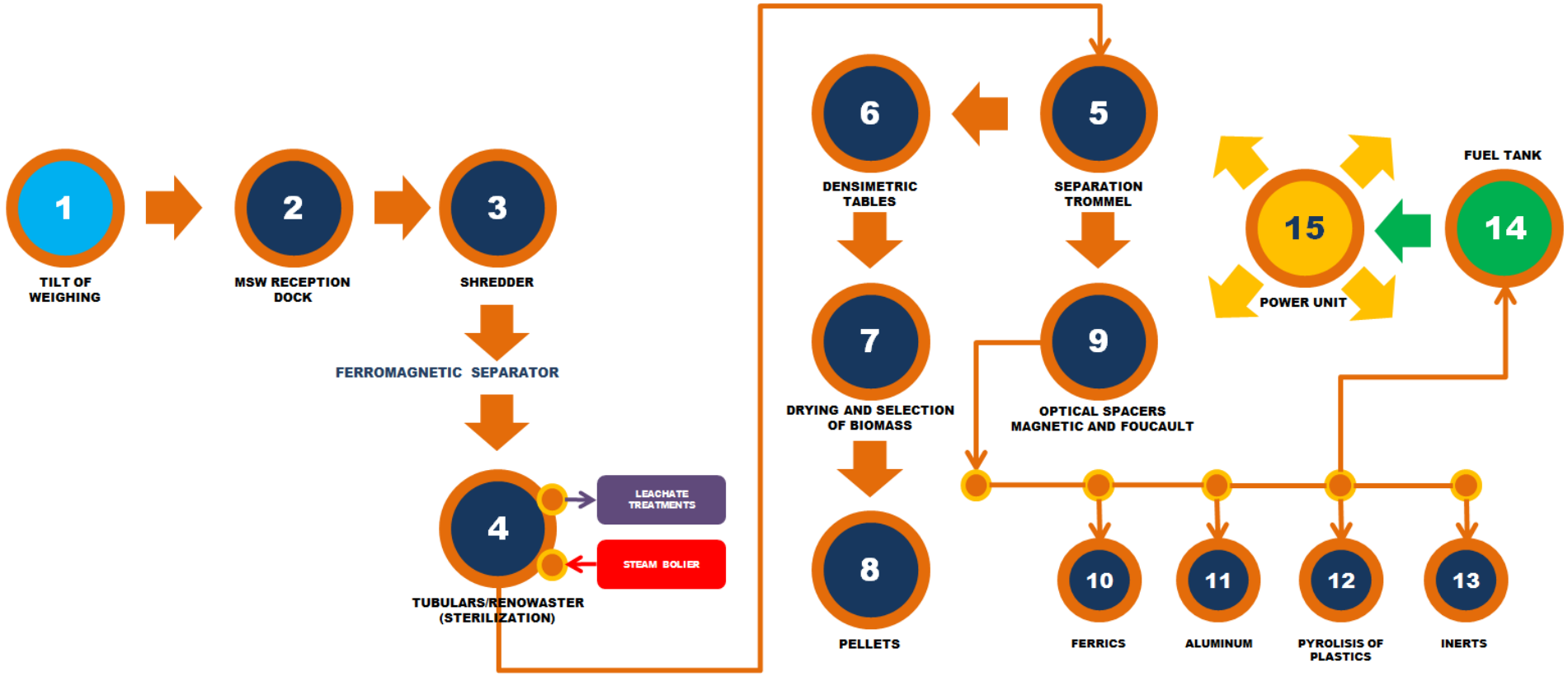
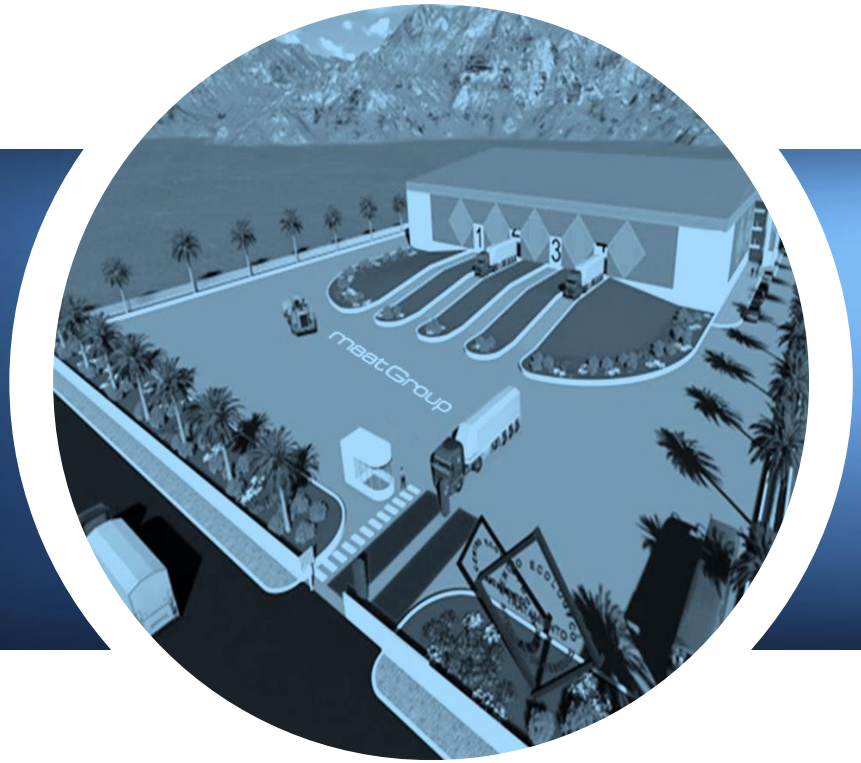
General Distribution – Scheme of the Plant

It involves the installation of Industrial Plants for treatment of urban solid waste (U.S.W.) that will promote its recycling to turn it into perfectly usable and marketable by-products on the market, from which to obtain clean and regenerable energy





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Processes Description

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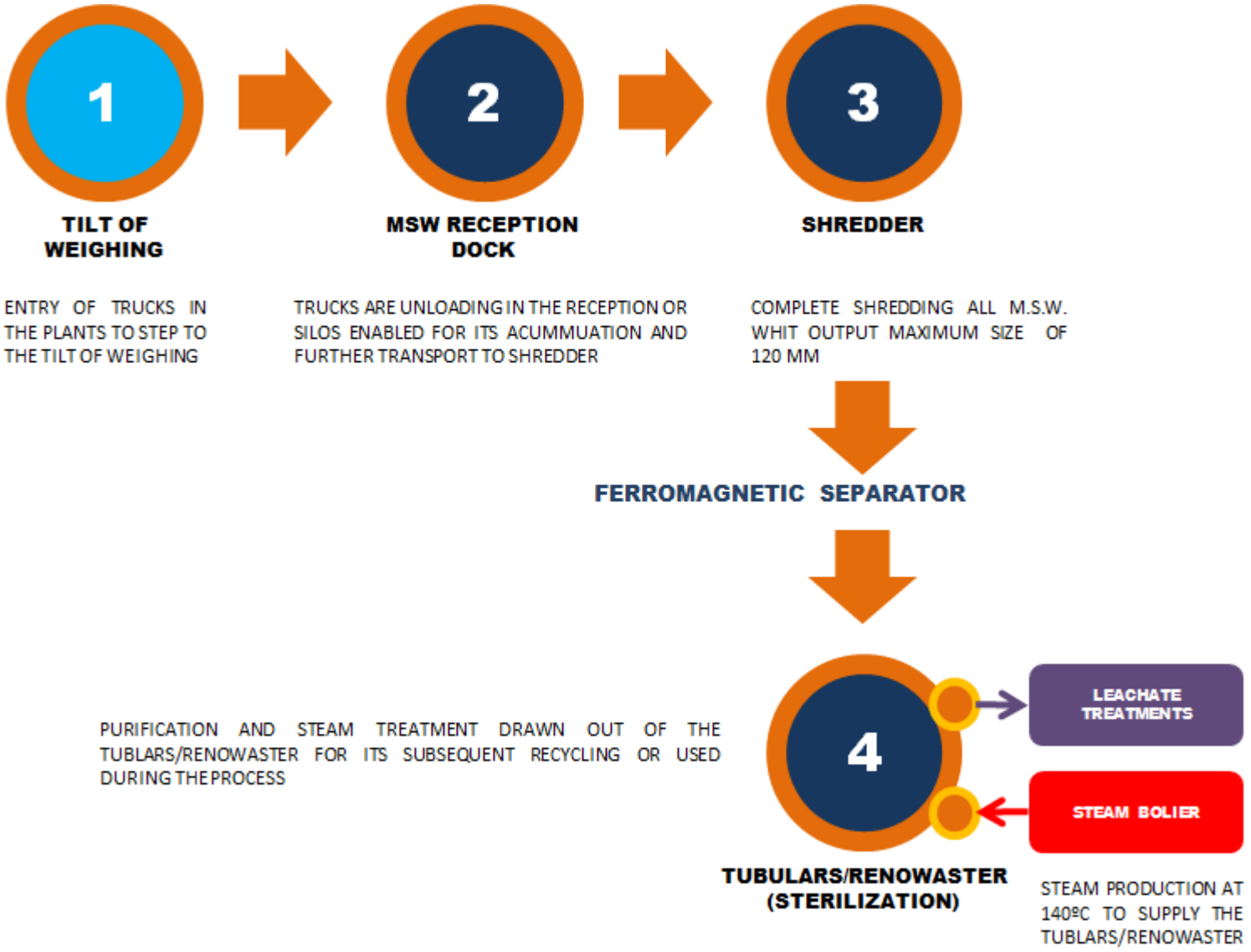
Scheme of the Plant – Process Description



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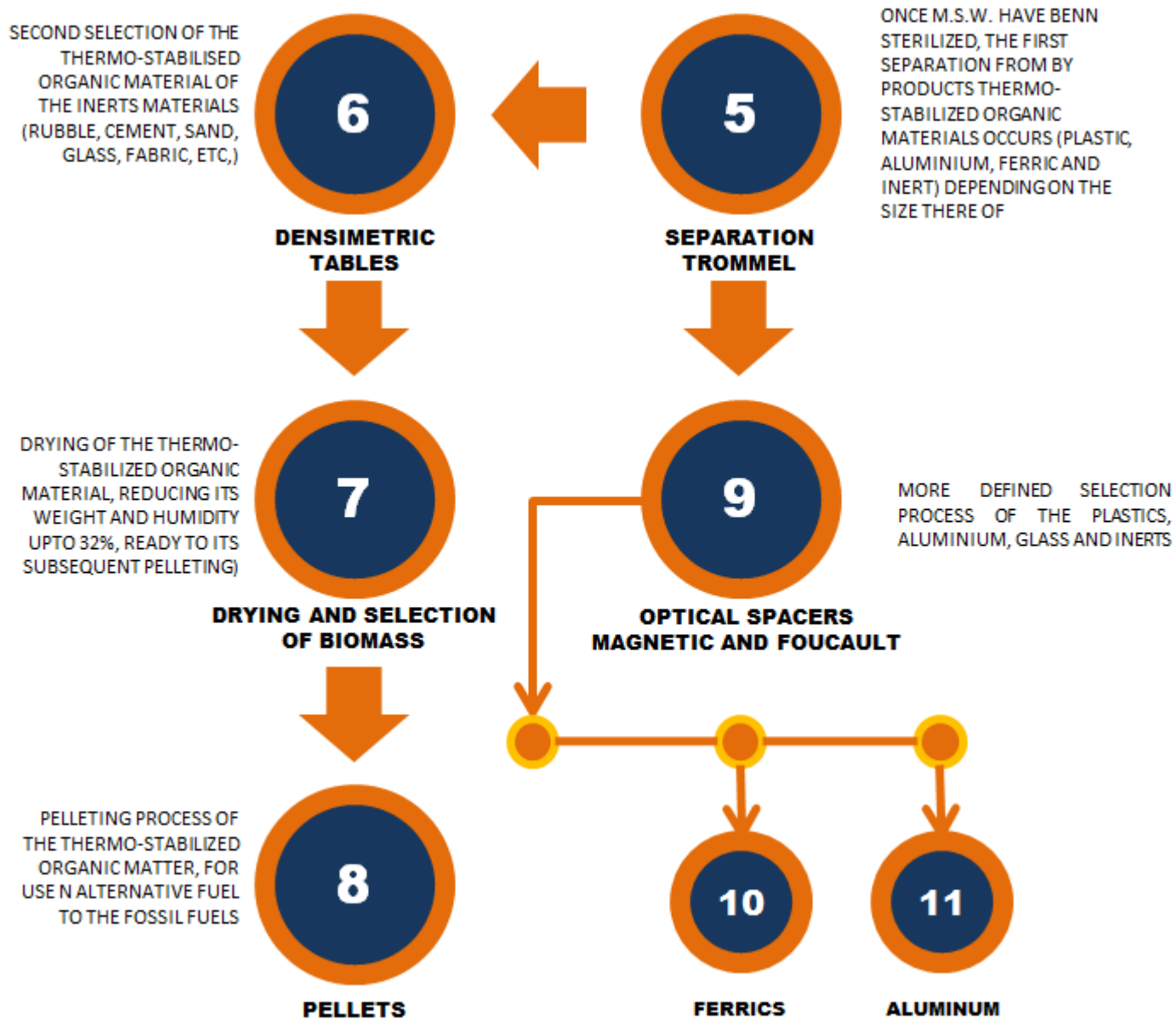
Scheme of the Plant – Process Description



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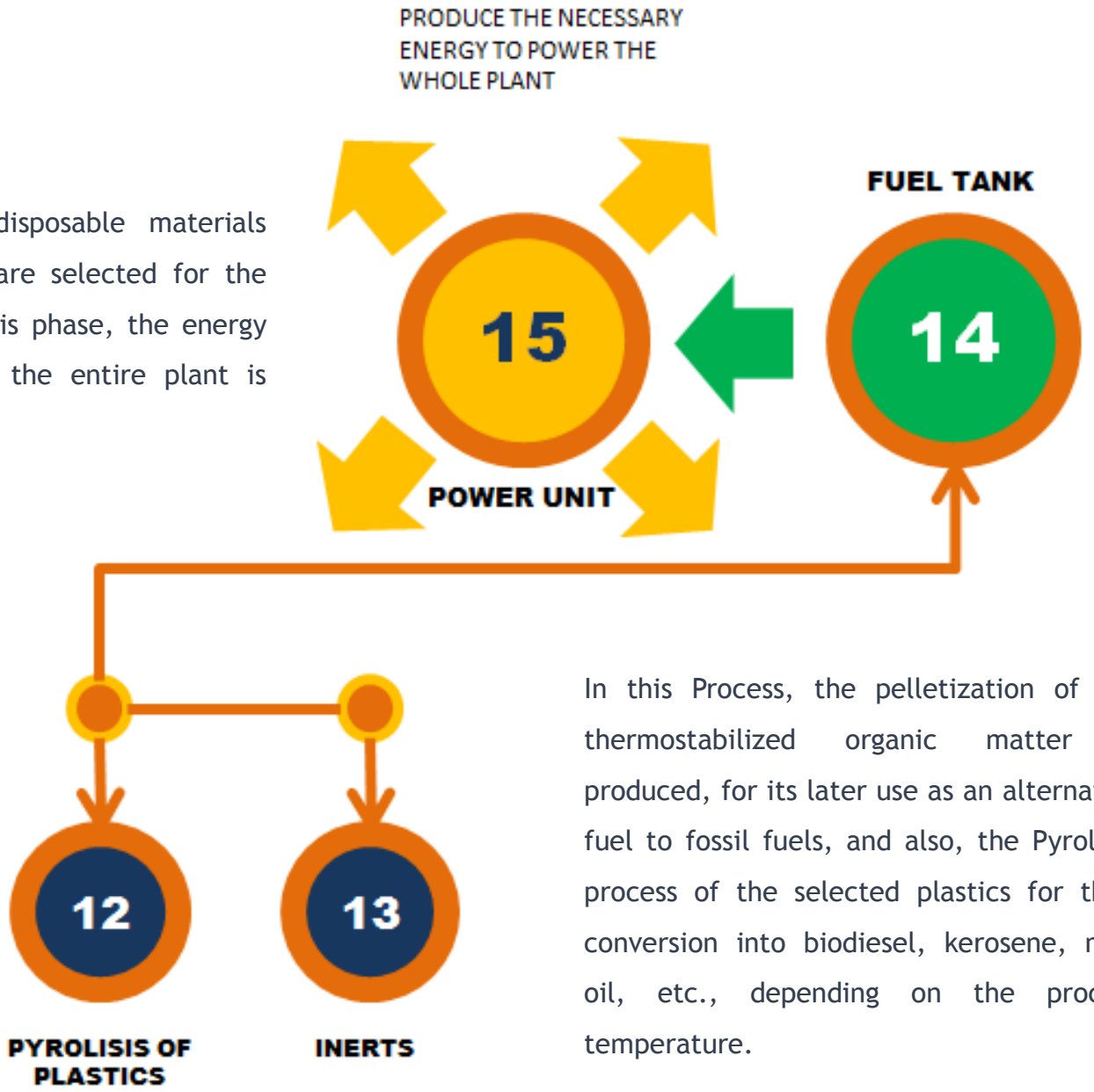
Scheme of the Plant – Process Description

The remains of disposable materials (about 8% - 10%) are selected for the inert landfill. In this phase, the energy necessary to feed the entire plant is produced



In this Process, the pelletization of the thermostabilized organic matter is produced, for its later use as an alternative fuel to fossil fuels, and also, the Pyrolysis process of the selected plastics for their conversion into biodiesel, kerosene, mix-oil, etc., depending on the process temperature.

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Undelying Technological Infrastructure

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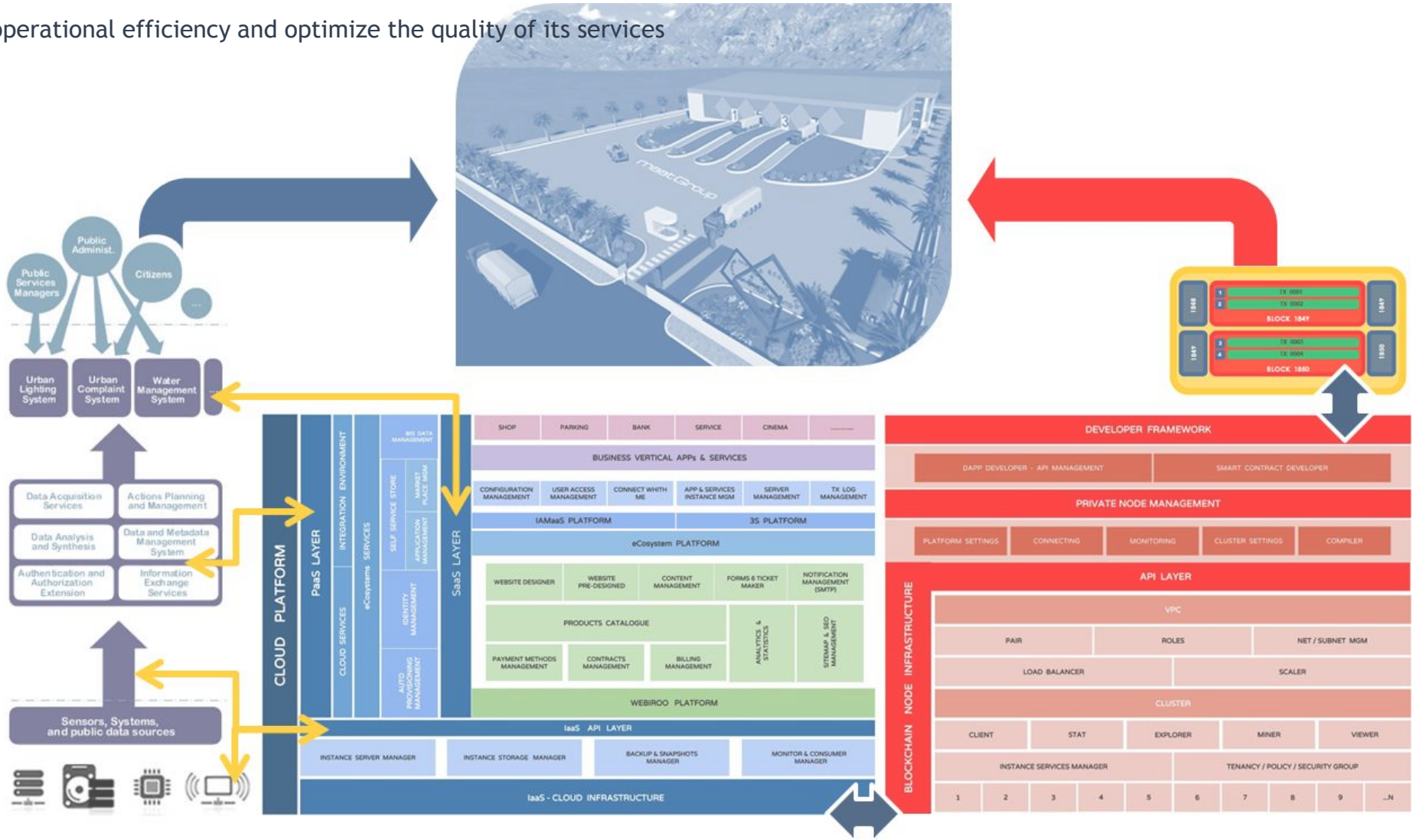
Technological Architecture

Technological strategy is articulated on an underlying infrastructure based on two main pillars: **(IoT) Cloud Computing** and **BlockChain**, which takes advantage of the most advanced information and communication technologies to increase its operational efficiency and optimize the quality of its services



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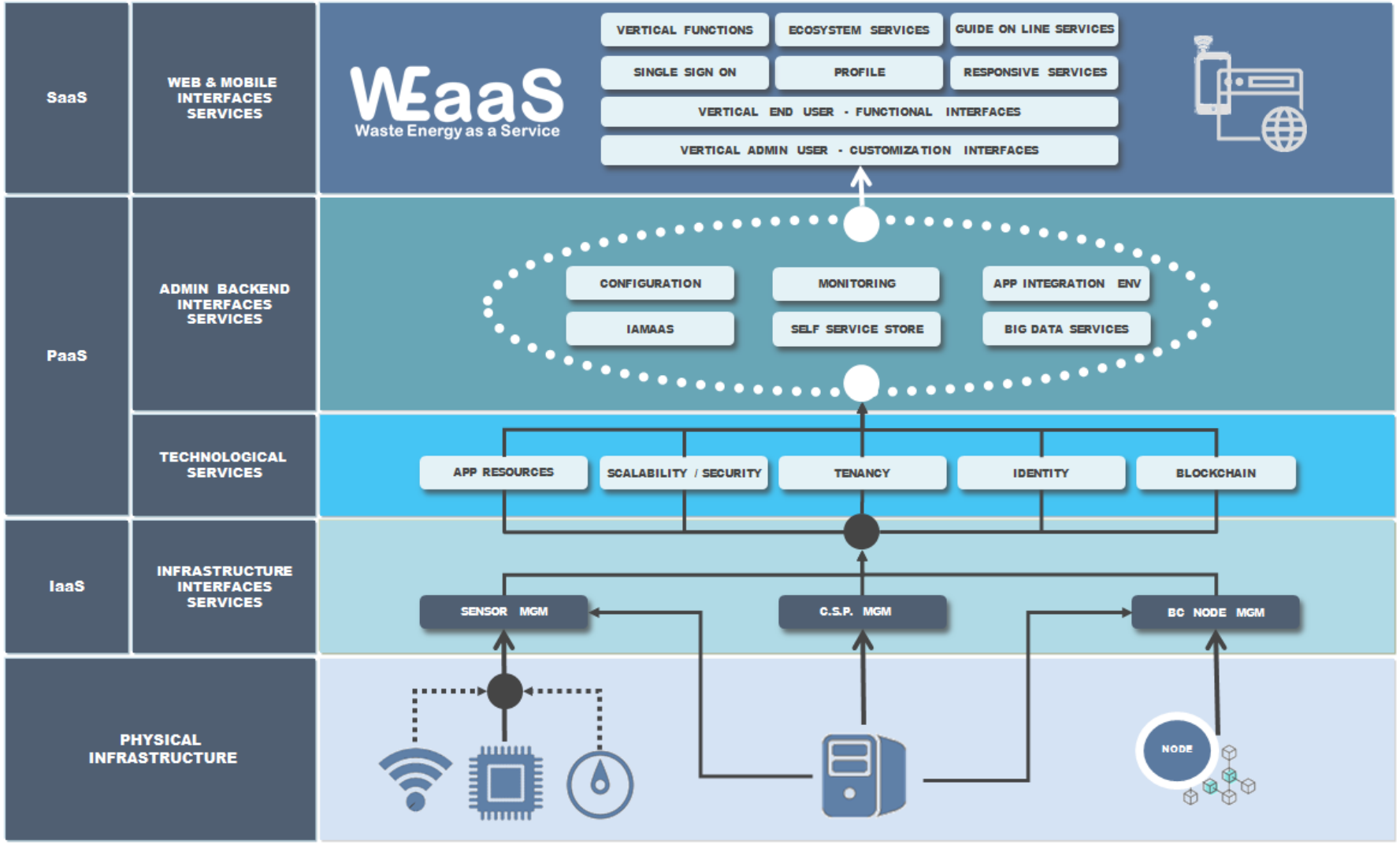
Infrastructure Services Model

The Model ensures the orchestrated provision of technological services, guaranteeing a controlled environment where all its components work in an integrated, harmonious, organized and safe way



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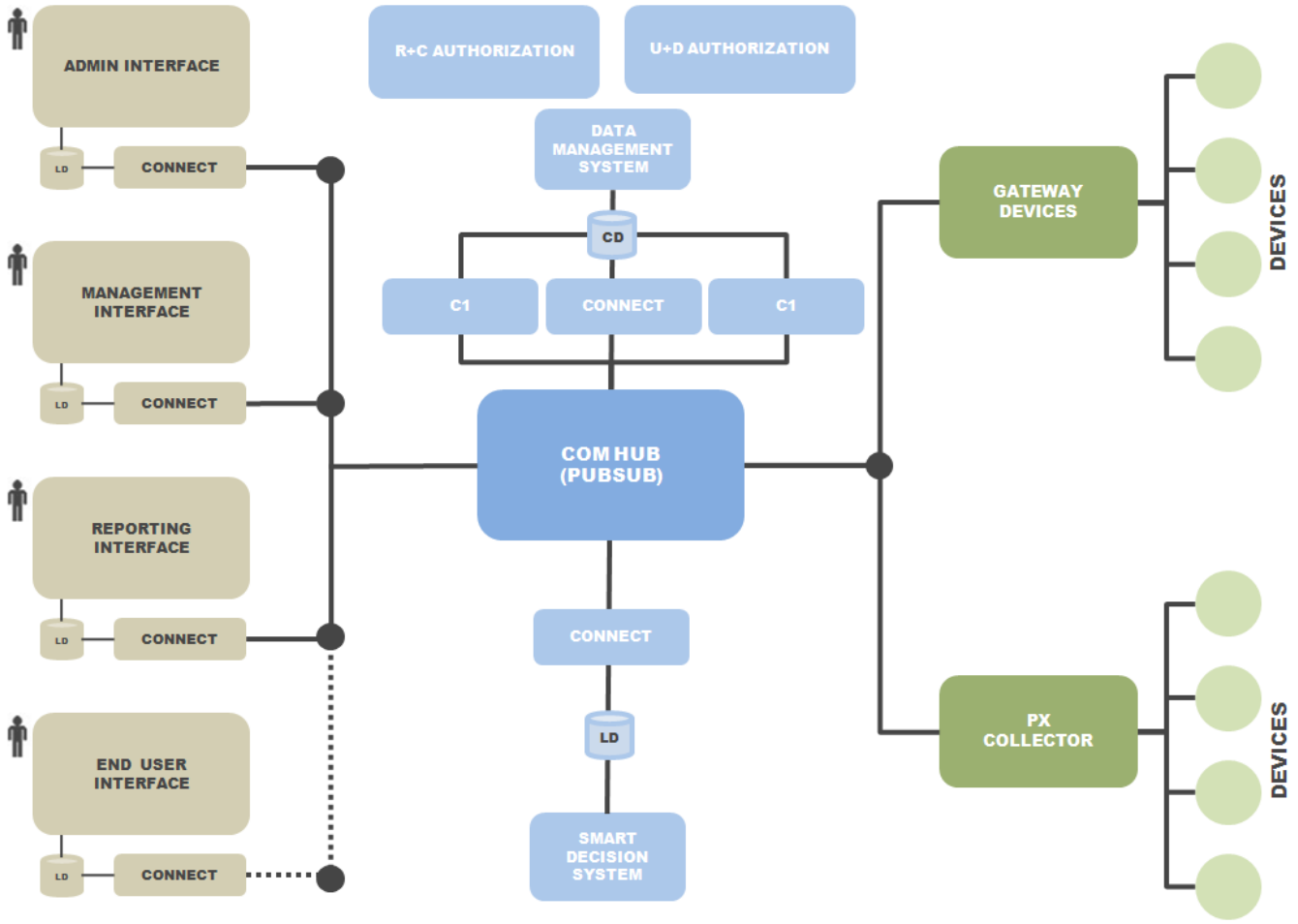
Machines & Devices Integration Architecture

IoT Device Integration Model is based on the principle of administrate a pool of smart devices, which can make local decisions from offshored components. Has beed designed for cover present and future needs. It´s a very robust, flexible, secure, dynamic technological expression and therefore, permeable to the continuous evolutions of the Industry



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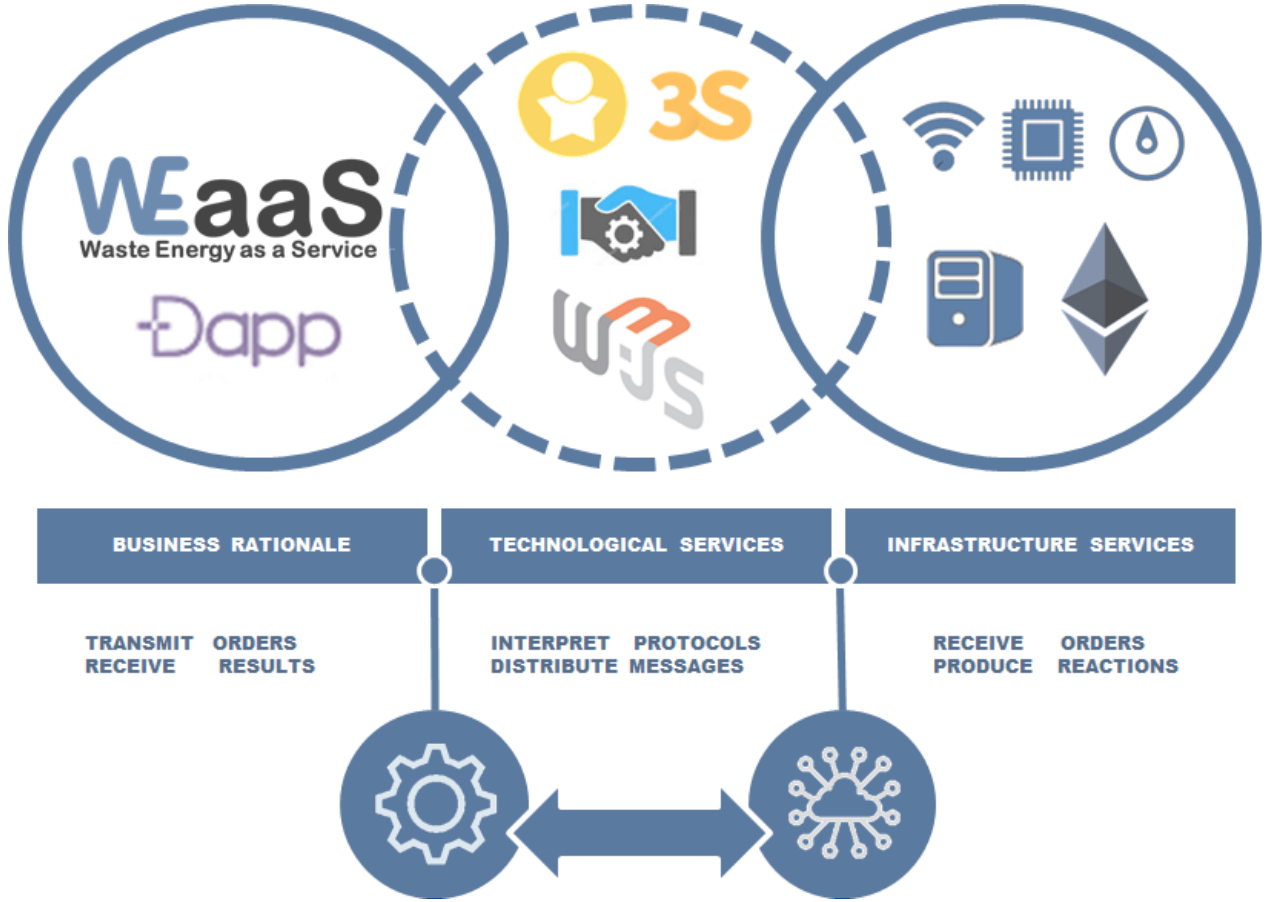
Infrastructure Reaction Model

Has been designed and developed a set of tools, **APIs and procedures** oriented, on the one hand, to software management based its integration through internal web services, and on the other hand, supporting to the creation, maintenance and management of Configuration of Applications and Contents. The **eCosystem** is by itself an instantiable services, table to launching a **"intercommunicated Smart Plants constellation"**



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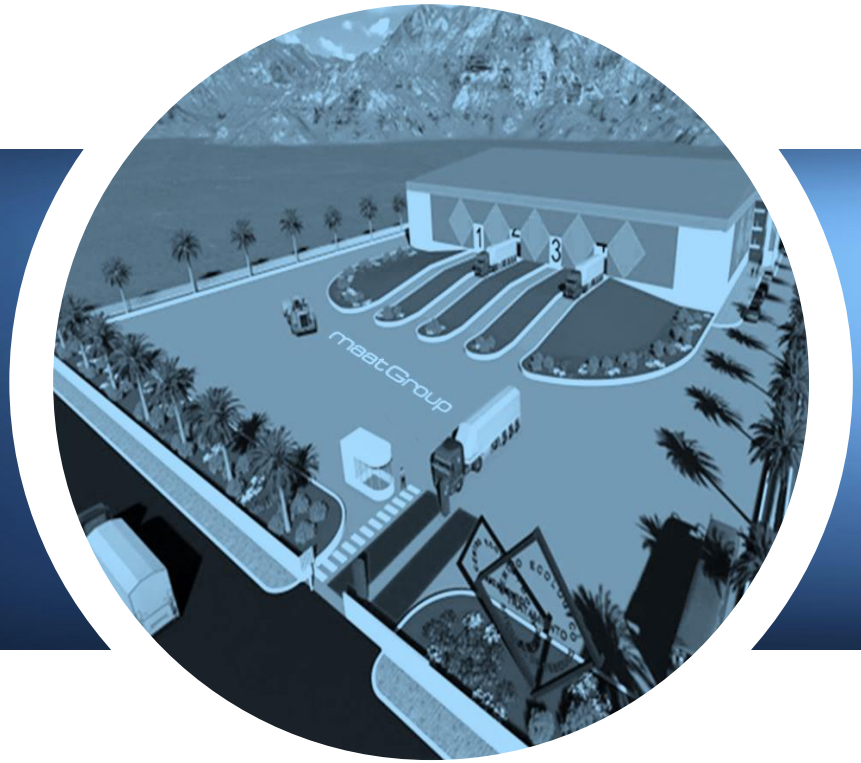
Infrastructure SCADA Model

Supervisory Control and Data Acquisition is a **Centralized Dashboard** able to remotely control and supervision the entire industrial processes and the operation of each of the Plants that make up the Waste Transformation and Energy Production eCosystem



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Plant Characterization

The **particular characteristics of each Plant** -Size, reception capacity, production capacity, type of recycling, etc.- will be configured and measures through **Indicators and Domains from a Admin Dashboard**

MAIN PERFORMANCE INDICATORS, DOMAINS AND COMPETENCIES

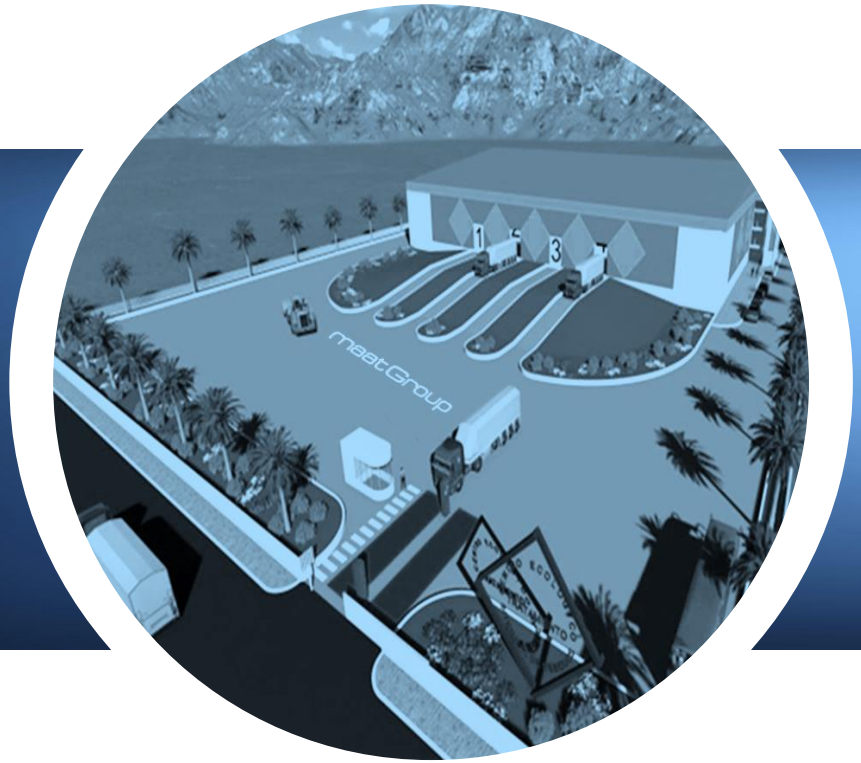
INPUT ELEMENTS PARAMETERS

Plant Capacity (TN)	70.000,00
Waste Pice (€)	
Kg/H Input	8.400,00

INDICATOR - DOMAIN				Price	IMPUTATION			
ID	Element	Kg/H Output			Type	Chapter	SubRChapter	Concept
1	ORGANIC PELLET	4.000,00	47,62%		01_INPUT	a_PRODUCT	a_COMM	BIOMASS SALE (Tn) PELLETS
2	PYROLYSIS OIL	482,00	5,74%		01_INPUT	a_PRODUCT	b_SUSTAINABILITY	PLAST. SELF-CONSUMPTION BALLS
3	CARBONOUS RESIDUE PYROLYSIS	205,00	2,44%		01_INPUT	a_PRODUCT	b_SUSTAINABILITY	PLASTICS FILM (Tn) AUTOCON
4	FERRIC	403,00	4,80%		01_INPUT	a_PRODUCT	a_COMM	MEFERRIC METALS (Tn)
5	ALUMINUM	160,00	1,90%		01_INPUT	a_PRODUCT	a_COMM	ALUMINUM (Tn)
6	INERT	588,00	7,00%		01_INPUT	a_PRODUCT	c_REGENERATE DISPOSA	INERTS (Tn)
7	CRUSHED PLASTIC	671,00	7,99%		01_INPUT	a_PRODUCT	a_COMM	PLASTICS PET ENV. (Tn) PLASTIC PELLT
8	INERT FOR CONCRETE	168,00	2,00%		01_INPUT	a_PRODUCT	a_COMM	OTHERS (Tn)
9	LOST ORGANIC	168,00	2,00%		01_INPUT	a_PRODUCT	a_COMM	OTHERS (Tn)
10	DISTILLED WATER	1.555,00	18,51%		01_INPUT	a_PRODUCT	b_SUSTAINABILITY	DISTILLED WATER OF PROCESS
			100,00%					

OTHER INCOMES				Precio	IMPUTATION			
ID	Element	Value			Type	Chapter	SubRChapter	Concept
11	BONO VERDE	21.000,00	30,00%		01_INPUT	a_PRODUCT	d_OTHER SELLS	GREEN BONUS

OTHER INCOMES				Precio	IMPUTATION			
ID	Element	Value			Type	Chapter	SubRChapter	Concept
12	WASTE TREATMENT PR. 70000 TN	70.000,00	100,00%	0,00 €	01_INPUT	b_SERVICES	e_TREATMENT	TREATMENT SERVICE INCOME



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(IoT) Internet of Things Features

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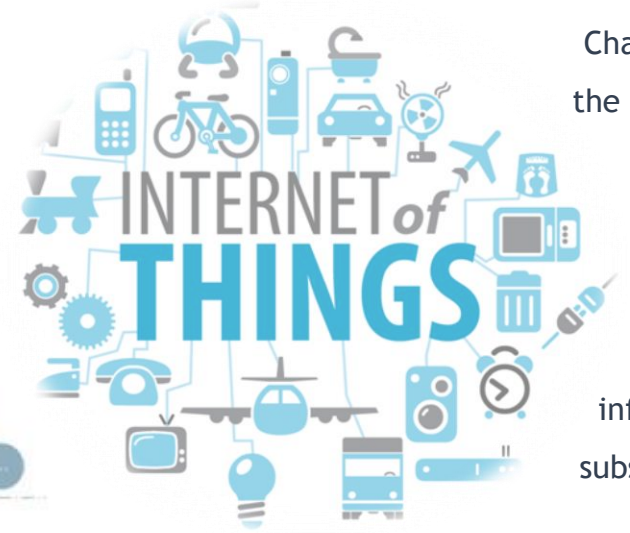
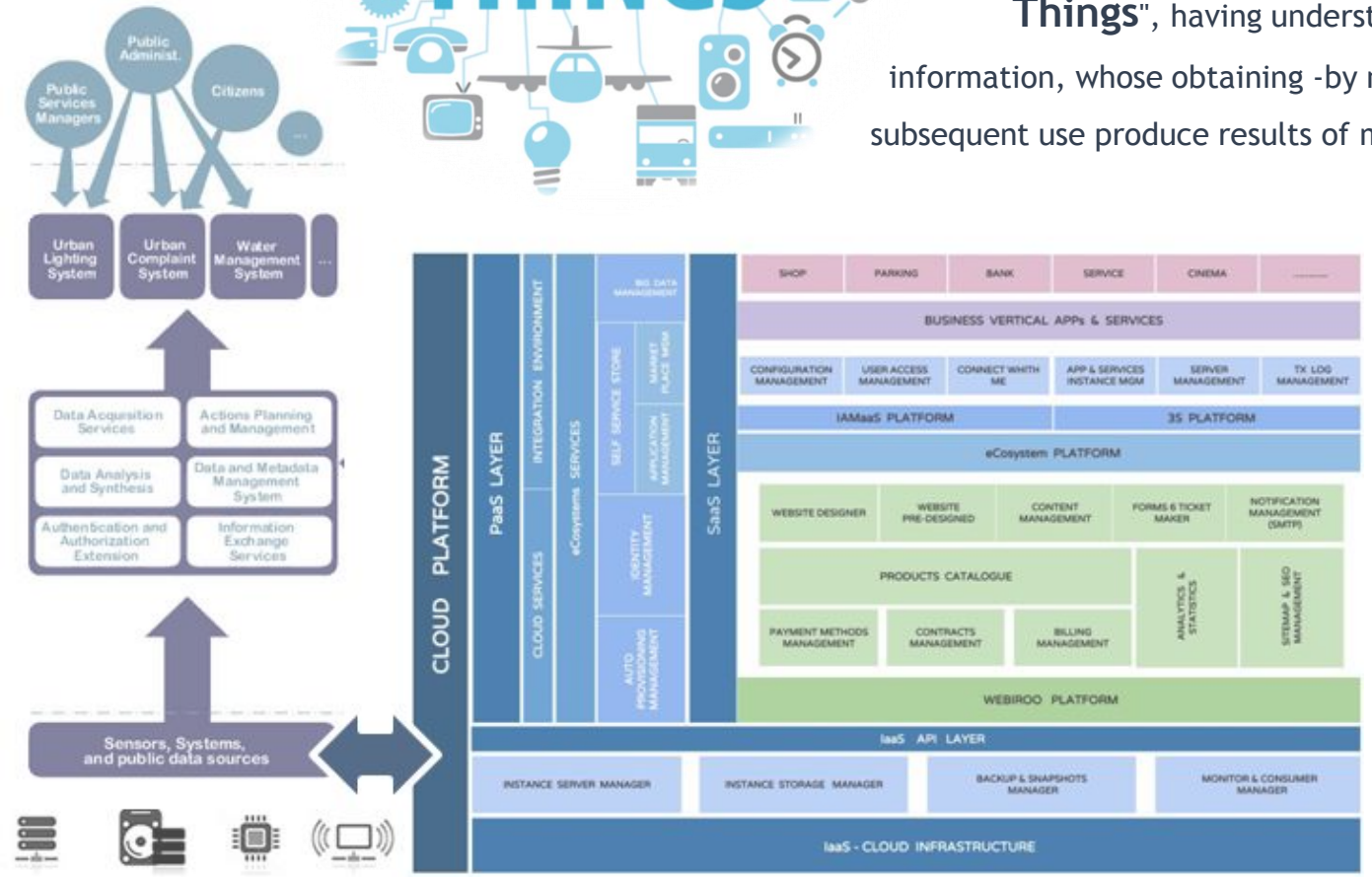
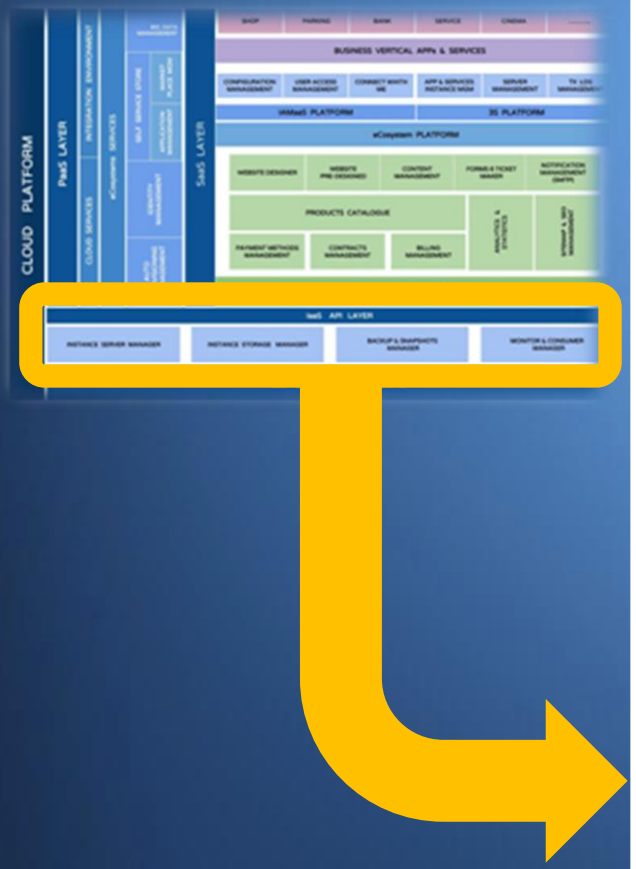


Cloud Computing Paradigm has emerged disrupting traditional “Value Chains”, allowing unprecedents “economies of scale” and consolidating the ”techological democarcy” concept to result of the eroding of “entry barriers” to ”state of the art” technology infrastructure.

Cloud Technology has enabled the advent of the "**Internet of Things**", having understood that things themselves produce information, whose obtaining -by means of sensors, devices, etc.- and subsequent use produce results of maximum richness and direct impact on the processes optimization.



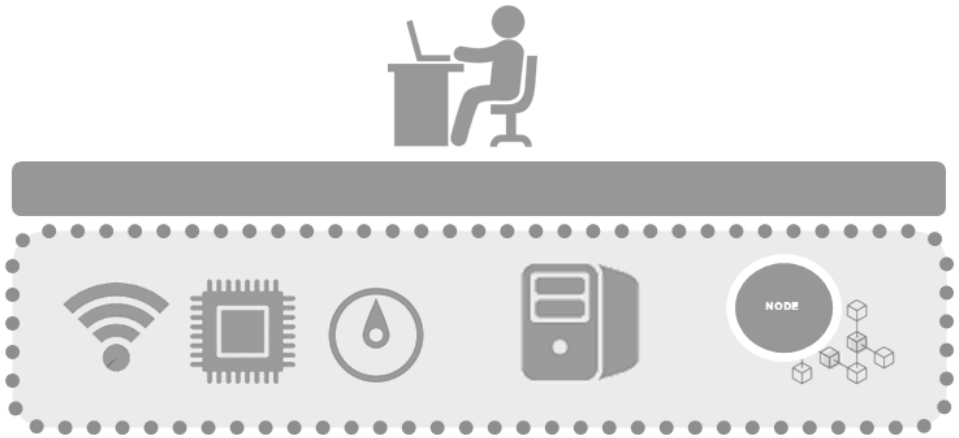
The ability to connect devices and interpret them means that IoT can have unlimited applications, can act in almost any area and be responsible for collecting information in multiple environments: from living beings and natural ecosystems to amy object, so they could be used for any type of behavior monitoring

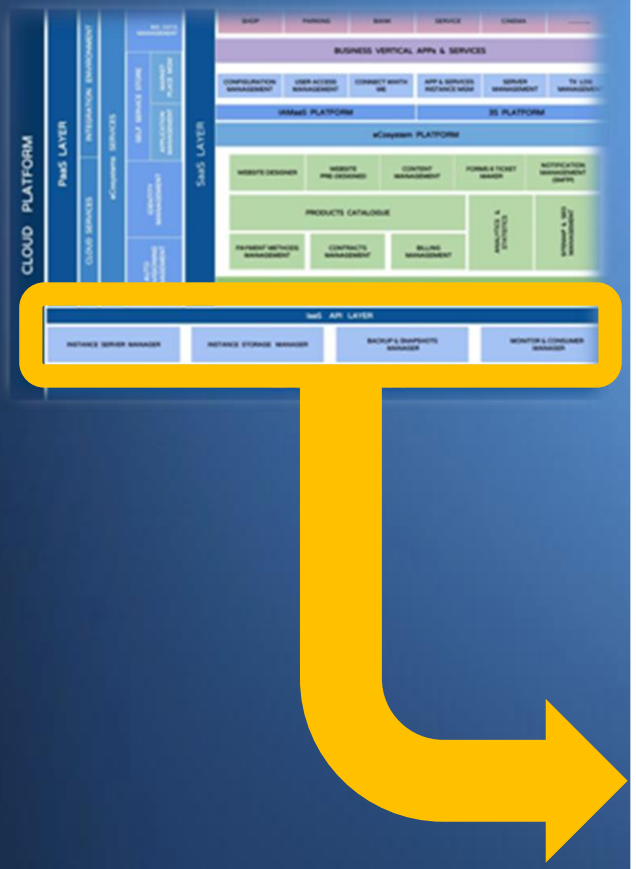


IaaS Layer

It´s the Layer closest to the physical element, able to managing basic infrastructures. This layer will provide access to storage, computational power, communications and servers on demand. It proposes, therefore, that the computing infrastructure as one more service, on an advanced virtualization platform that allows total elasticity from the point of view of changes in the needs of the service.

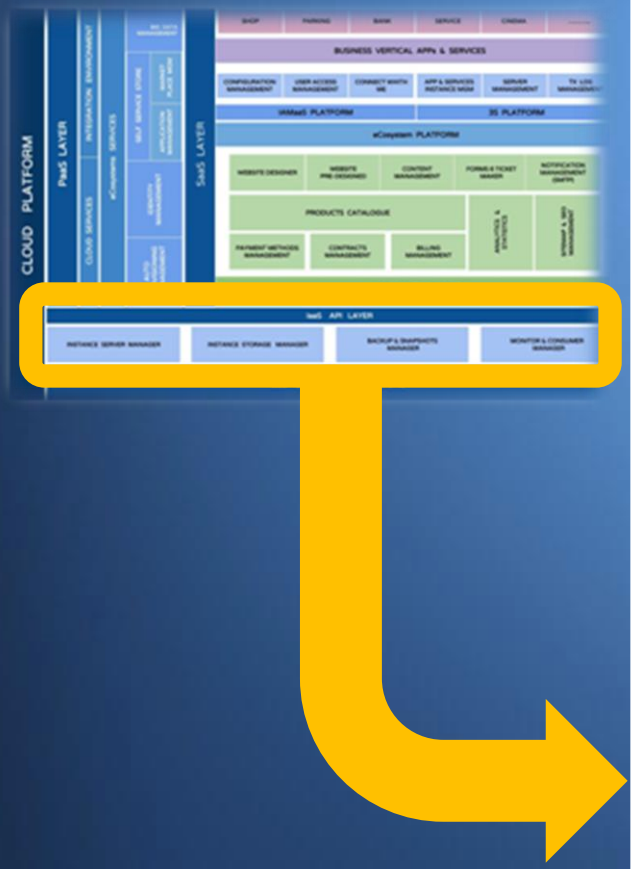
In any case, the management of physical infrastructures is no longer a problem for maatGroup clients, since all our services include it in trasparent way. Our clients only take care of their BUSINESS CORE, we take care of everything else... In this way, it is not only possible to establish service models for third parties, where only computational resources are consumed, but it will also be possible to establish departmental models -in the perspective of Internal Management of large organizations- where, the offered utilities are supplied like computational resources to the rest of the Layers Model, being these resources perfectly measurable and budgetable.



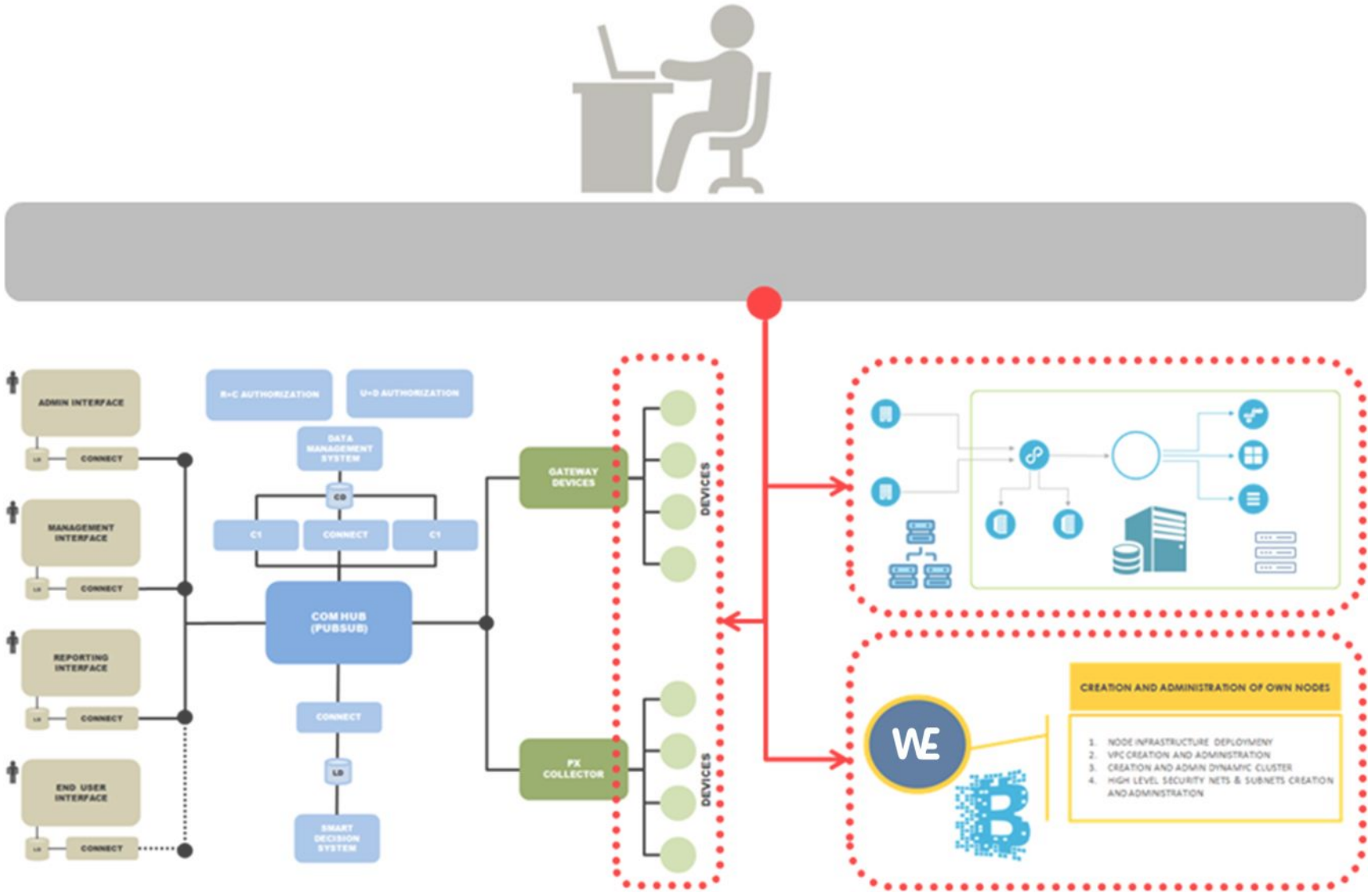


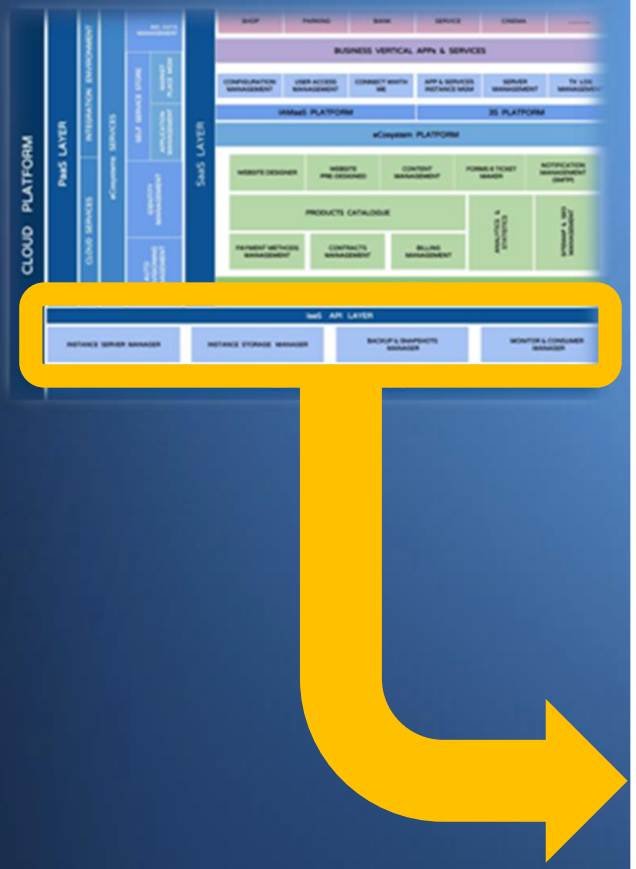
IaaS Layer
Main advantages

- **VIRTUALIZATION**: It allows abstraction of infrastructure resources and centrally managing them in order to arrange them in atomic form. This action favors: fast incorporation of new resources, reduction of consumption costs, reduction of IT costs
- **FLEXIBILITY**: It allows manage deployments environments and be able to size them quickly and easily. It offers a set of tools capable of allowing the user to manage the deployments in assisted and parameterized mode, solving the ready immediately. Also, if you need to increase or decrease the required power, you can manage it with the same simplicity and immediacy, so that the service you receive, is always in tune with your need at all times.
- **ISOLATION**: it allows to isolate the infrastructure resources, guaranteeing the correct operation and deployment in any Deployment Model. Besides, it allows to manage and define the isolation between different resources or nodes by means of the isolation with virtual subnets and the virtualization of network resources in an atomic and a contextual split mode..
- **DELOCALIZATION**: It allows to express the services regardless of the physical, geographical or temporal location in which they are presented. The Platform raises the absolute abstraction of the physical location of the element. One of the relevant aspects of offshoring is the enclave, delocalization does not only mean being able to offer a service decoupled from the physical environment, but also being able to port it to the physical environment that best suits the need.



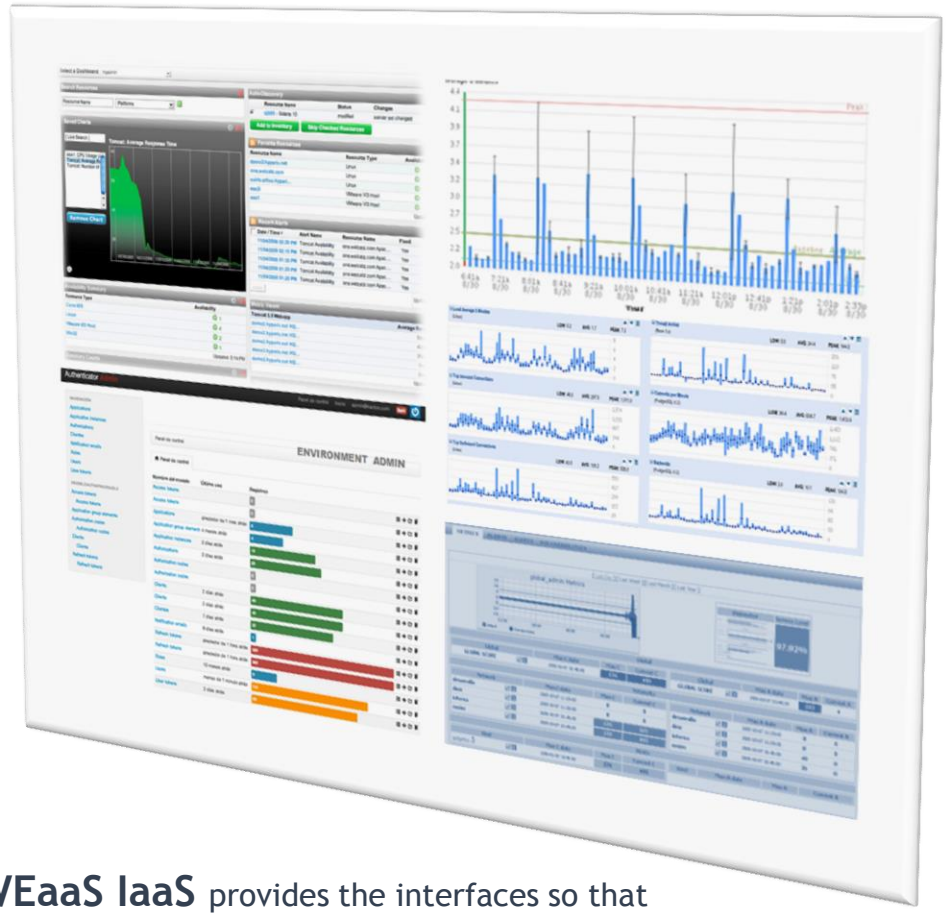
IaaS Layer Action Scope



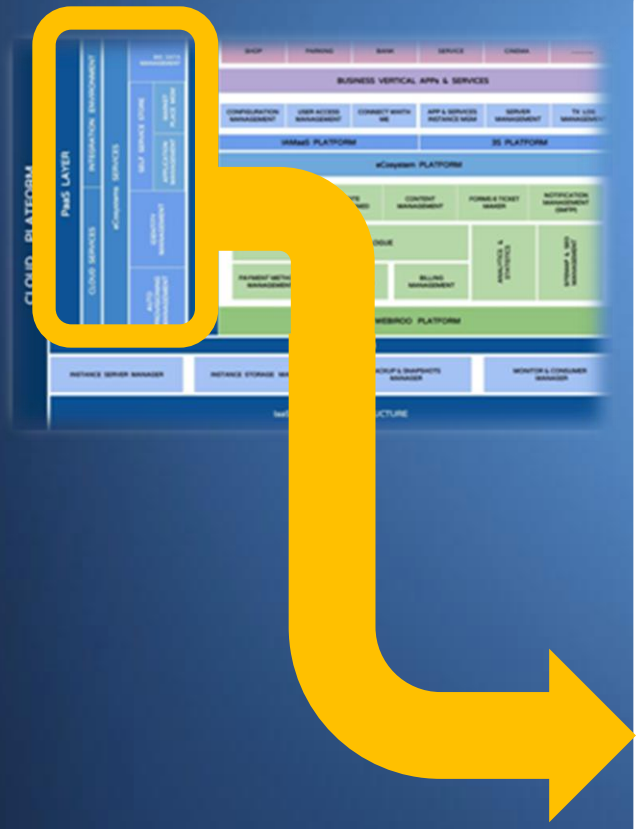


IaaS Layer Admin Interfaces Provided

It´s expressed in a Software environment that makes it possible to manage the physical infrastructure of an Organization - "Real Time Infrastructure" -, in such a way that its resources can be offered as a Service, working like a utility: updates will be automatic and the extension or reduction of the service will be solved through a very simple ON DEMAND process. **WEaaS** is able to work in any deployment model, including combining "real time infrastructure" with "public cloud services providers" as, for instance, Amozon_WS. A hybrid cloud is a combination of a private cloud combined with the use of public cloud services where one or several touch points exist between the environments. The goal is to combine services and data from a variety of cloud models to create a unified, automated, and well-managed computing environment.



WEaaS IaaS provides the interfaces so that the configuration of infrastructure resources can be managed and monitored from an admin dashboard in a very professional, simple and assisted way

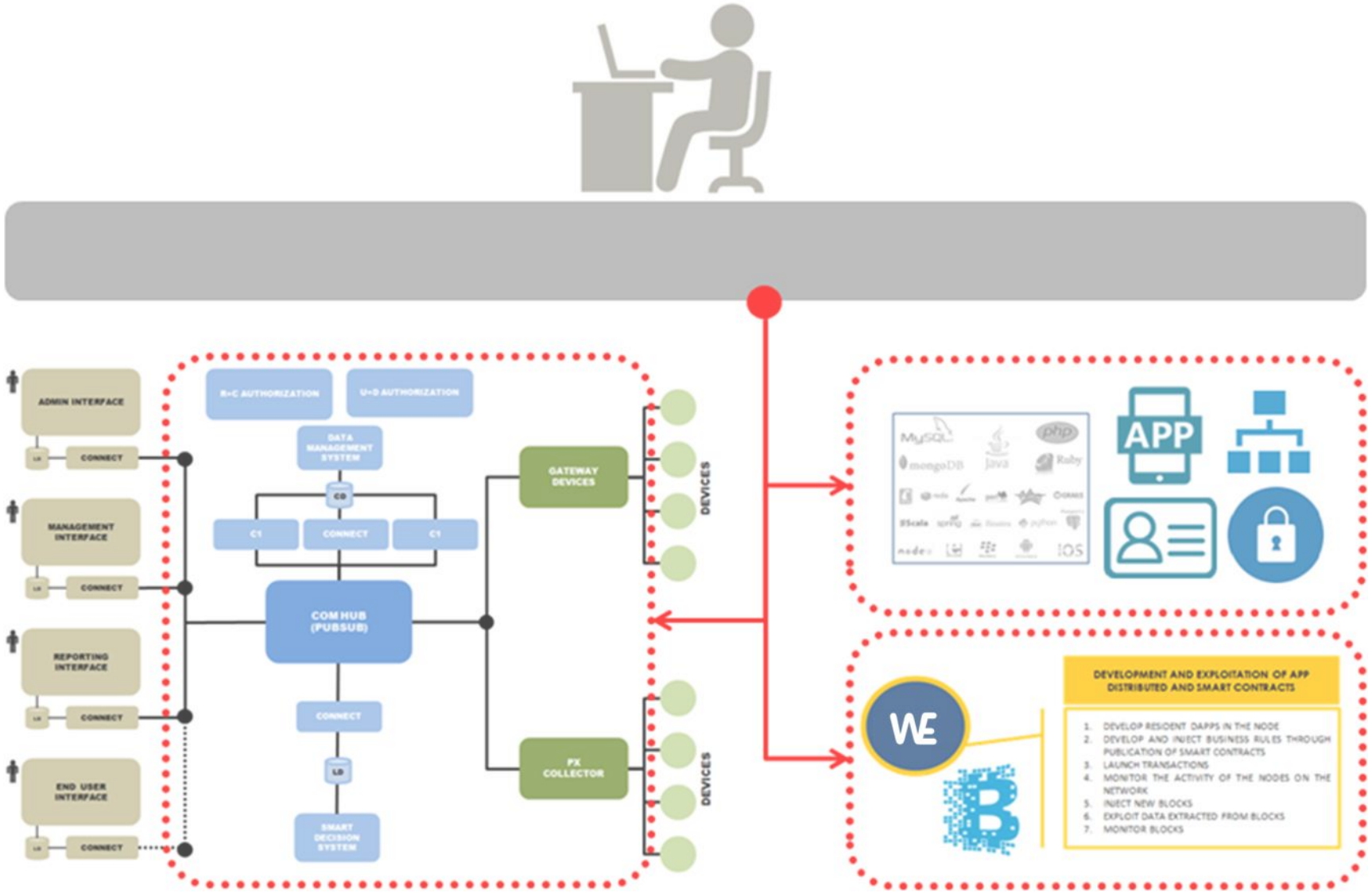


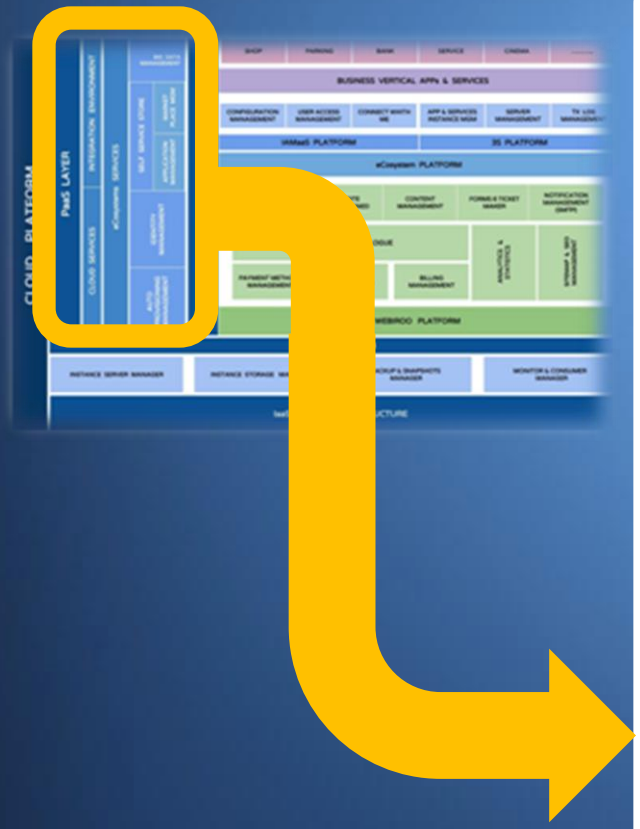
Provides technological services so that Apps can work in harmonious and orchestration way, making everything flow and all software components interoperates each. Is the Suite that offers to

- **INSTANCE´s Philosophy**: Platform provides services that assure you a unique administration, with no need to repeat multiple installation and maintenance efforts. This tool allows to manage the SELF SERVICE modality, the administration of App Catalogs so that the end user or departmental user can provided themselves without need of intermediations.
- **INTEROPERABILITY**: Platform allows to interoperate with INDUSTRY STANDARDS... The client will find friendlies ways for use those frameworks that he know or to integrate thirdhs apps
- **SCALABILITY**: Sizing? Environment Management ?? Peaks and Valleys ?? .... It is no longer part of your problems... It allows you to scale or de-scale all kinds of resources on the fly. Optimizes the management of resources, making the administration of adjustments as all flexible as possible
- **MONITORING**: Users have TOTAL CONTROL of all the activities. The METERING service allows him to parameterize the management of thresholds and the MONITORING service allows him to visualize ON TIME the end-to-end behavior of the whole Platform. Alarms and interactive views at your disposal and the most exhaustive analytical audit for forensic management
- **SECURITY**: Platform offers high security services. It puts at your disposal all that was within the reach of the Great Corporations only.

PaaS Layer

PaaS Layer Action Scope





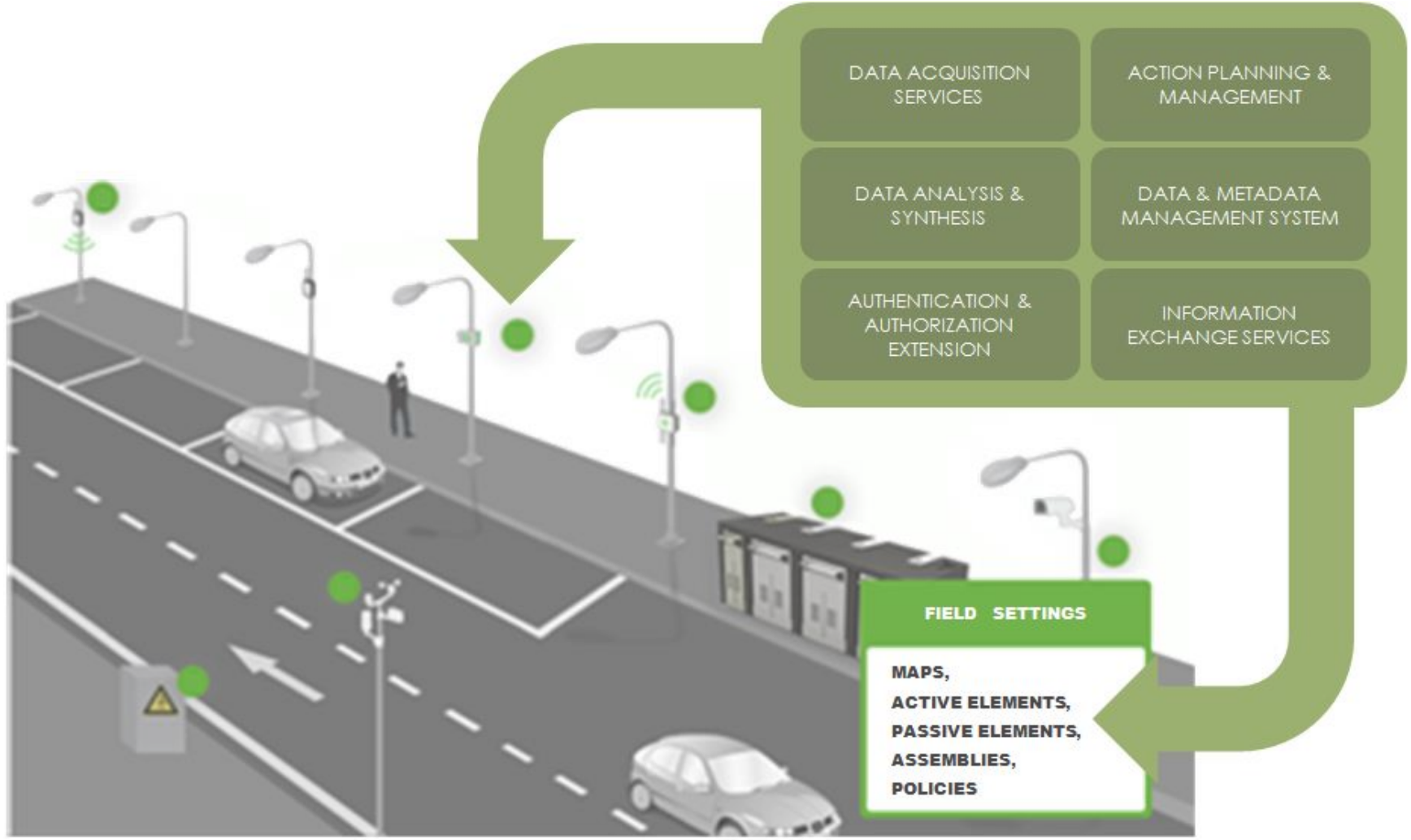
PaaS – App & Services Admin Interfaces Provided

WEaaS PaaS provides the interfaces so that the IT user can perform the complete management during the entire life cycle of any application. User can consult the information associated with the instance: URL, ID, provisioned services, security key, authorizations history, etc. User can also configure any parameter, assign or deassign resources: RAM, Caches, DDBB instances, etc ... available for a specific application or for a group of instances of a specific client

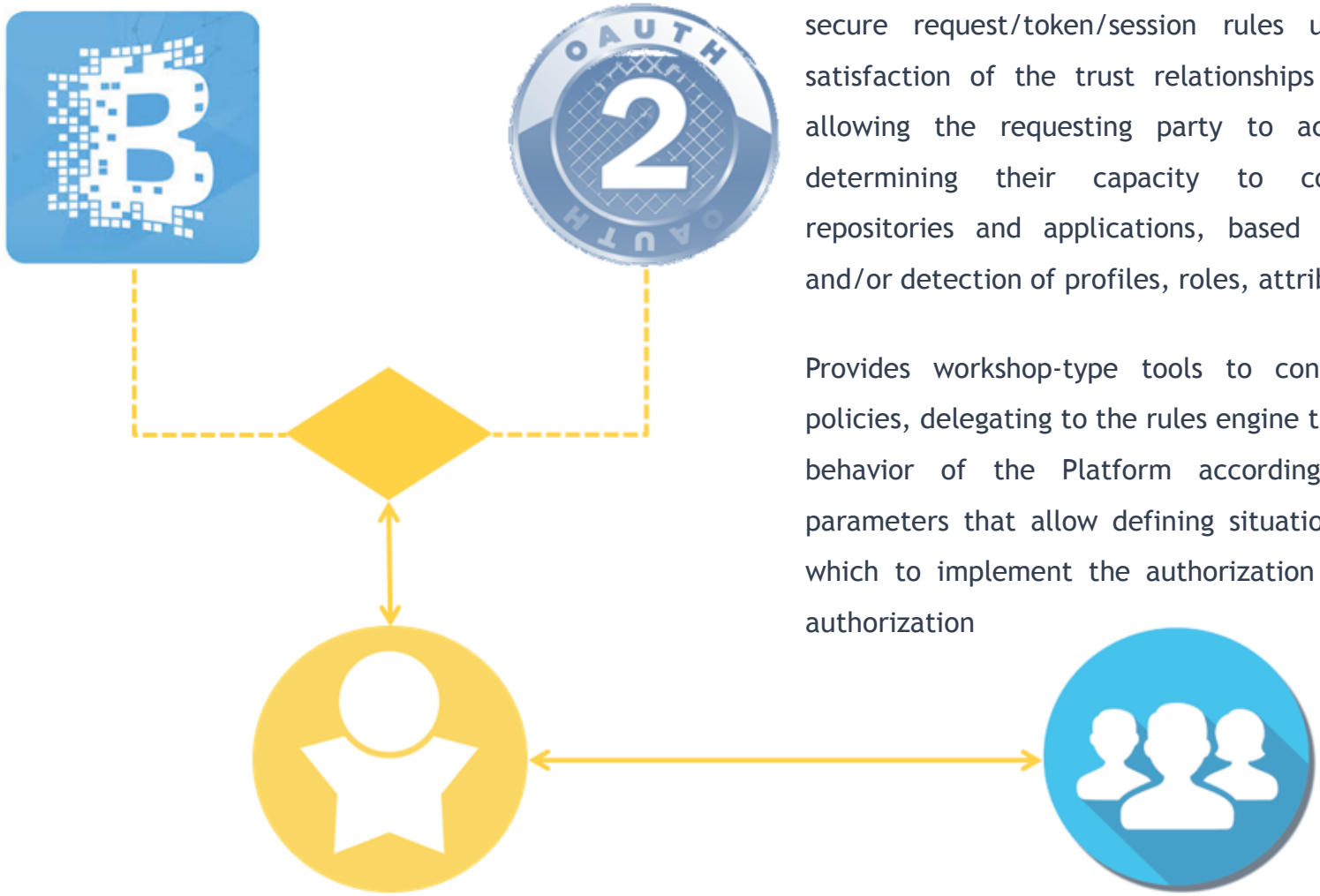
MySQL · php · mongoDB · Java · Ruby · redis · Apache · perl · GRAILS · Scala · spring · Sinatra · python · PostgreSQL · node · ERLANG · BlackBerry · android · iOS

sharing data and exchange information and knowledge with the INDUSTRY STANDARDS, integrating all the information, procedures or devices managed in a native context

PaaS – Devices Services Provided



PaaS
Identity MGM Services Provided



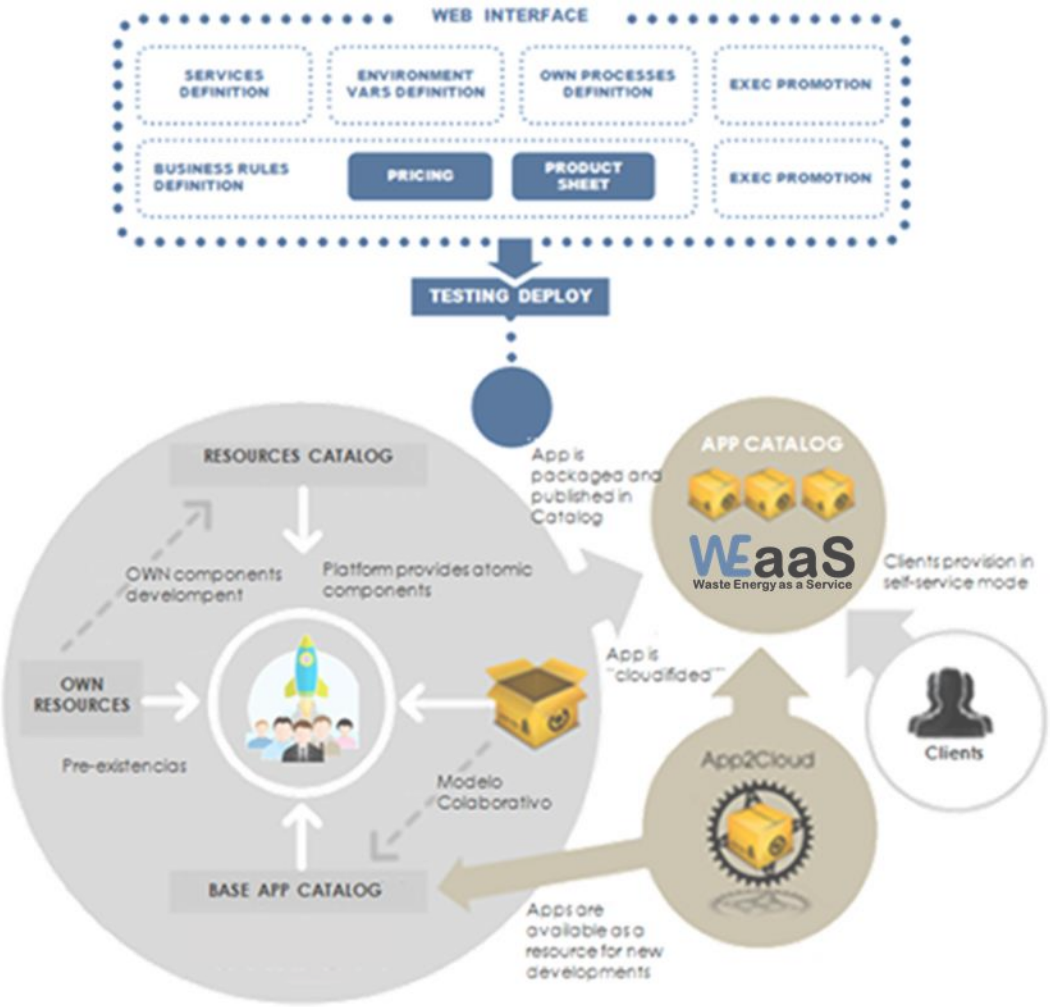
IAMaaS solves the Authentication, Authorization and Accounting process in a transparent way, administering the secure request/token/session rules until the complete satisfaction of the trust relationships is satisfied before allowing the requesting party to access the services, determining their capacity to consume resources, repositories and applications, based on the assignment and/or detection of profiles, roles, attributions and rules.

Provides workshop-type tools to configure standardized policies, delegating to the rules engine the adaptation of the behavior of the Platform according to the declared parameters that allow defining situations and moments in which to implement the authorization control and access authorization

PaaS Technologic Resources Services Provided

APP DEVELOPMENT & INTEGRATION ENVIRONMENT

- Platform provides an operational environment that allows managing the End-to-End Application Development & Integration Process and allows applications to consume technological services provided by the Platform (ddbb, caches, tenancy, security, etc.)
- Besides, provides a procedure, called App2Cloud, that allows to "cloudify" pre-existing applications.
- The main advantage that App2Cloud brings is that all those who have pre-existing systems and that require reconversion to the Cloud Computing-BlockChain model, can reuse the existing code and drastically shorten the cycle of effort to evolve the Technological Model.
- It means that applying this technique will allow us to "reconvert" traditional web applications and integrate them to the Platform "as a new self-provisioning service"



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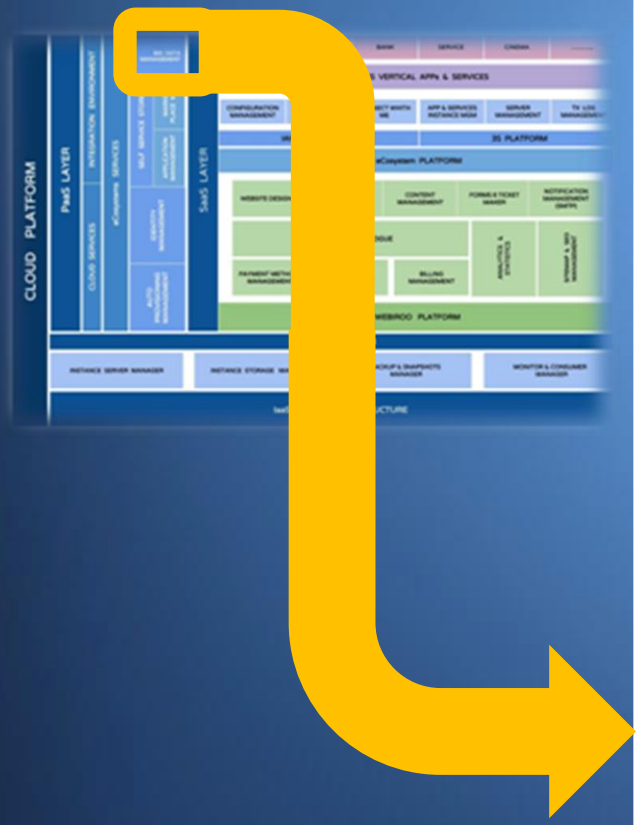
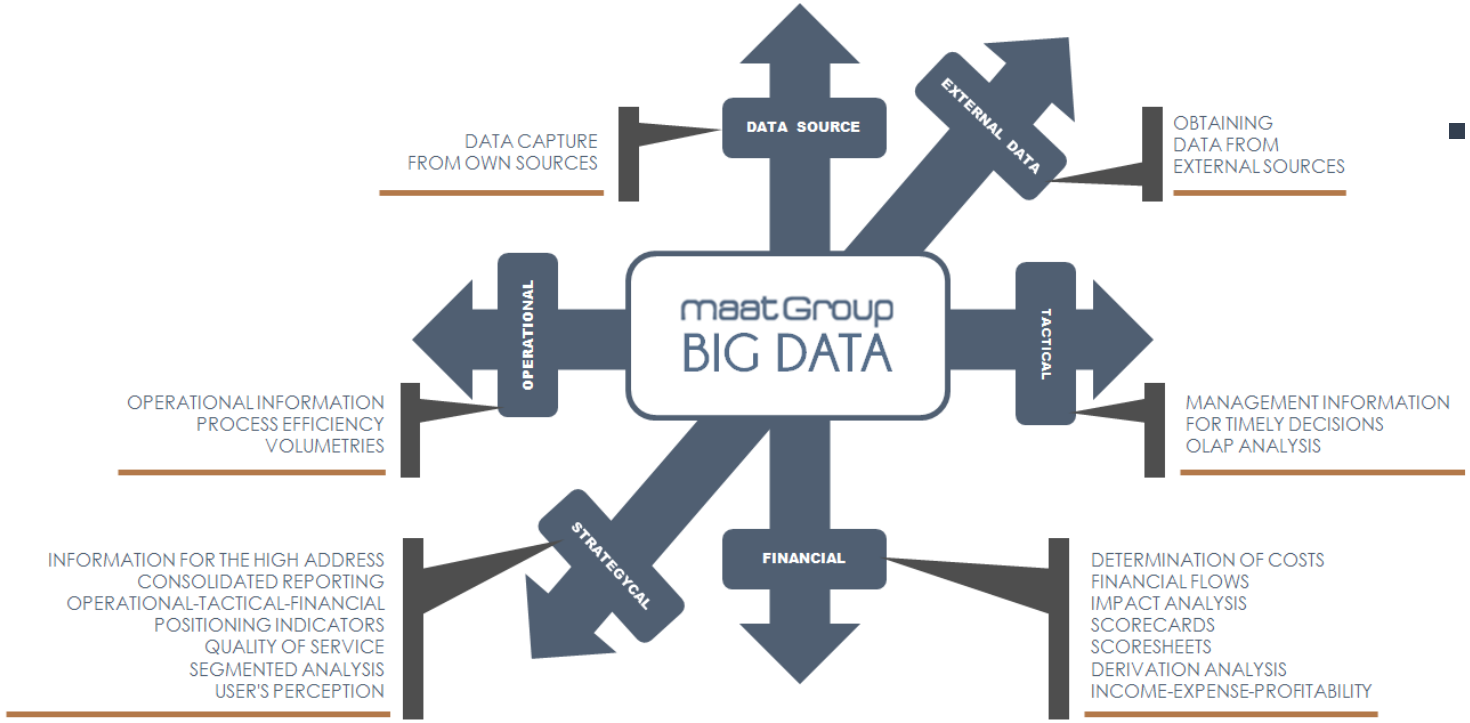
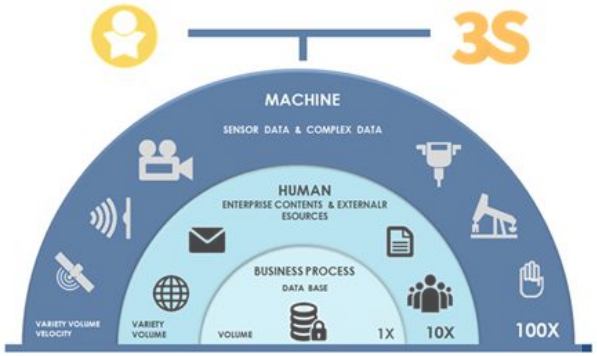


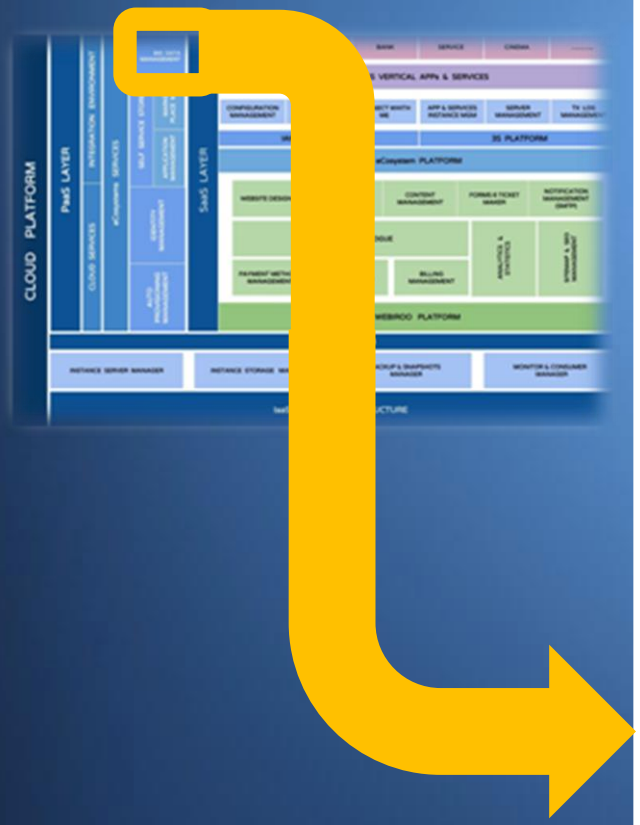
Paas – BIG DATA Services Provided



- This services provides the collection, storage and processing of data generated in daiy operations with the purpose of producing **USEFUL and TIMELY INFORMATION**, capable of being transformed it into knowledge for to **be optimized the take of decisions**

Digital transformation is a mandatory challenge for companies that want to be competitive in today's globalized environment, There are several elements that act as axes of transformation: people, technology, the ability to adapt and respond, innovation, creativity, business culture, although without doubt, one of the most important elements is **the data,** and if we relate our "**own data**" with "**the data**" we will **extract information and knowledge of enormous wealth and a key factor of success**

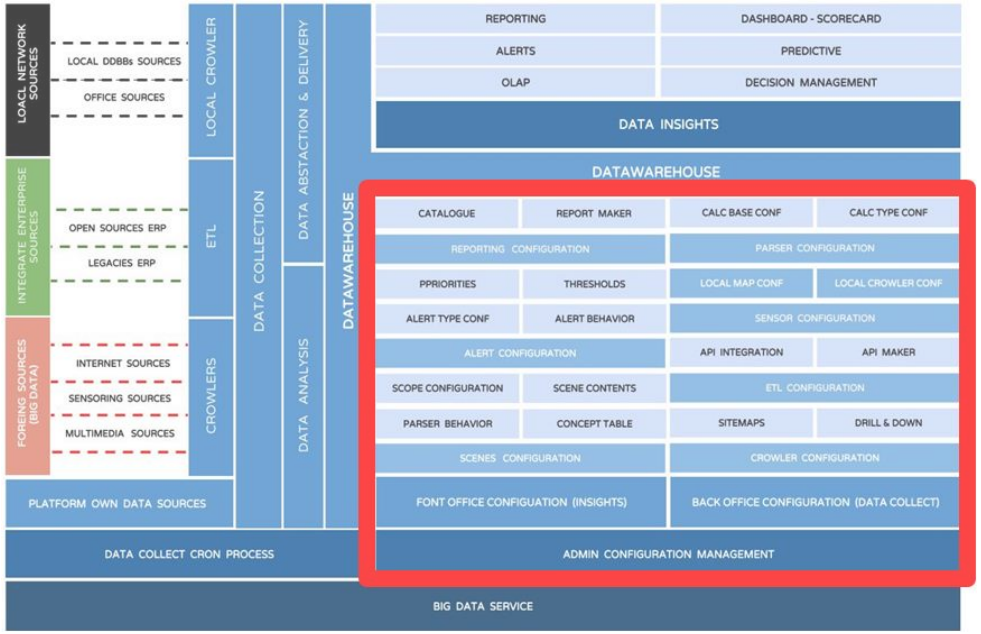




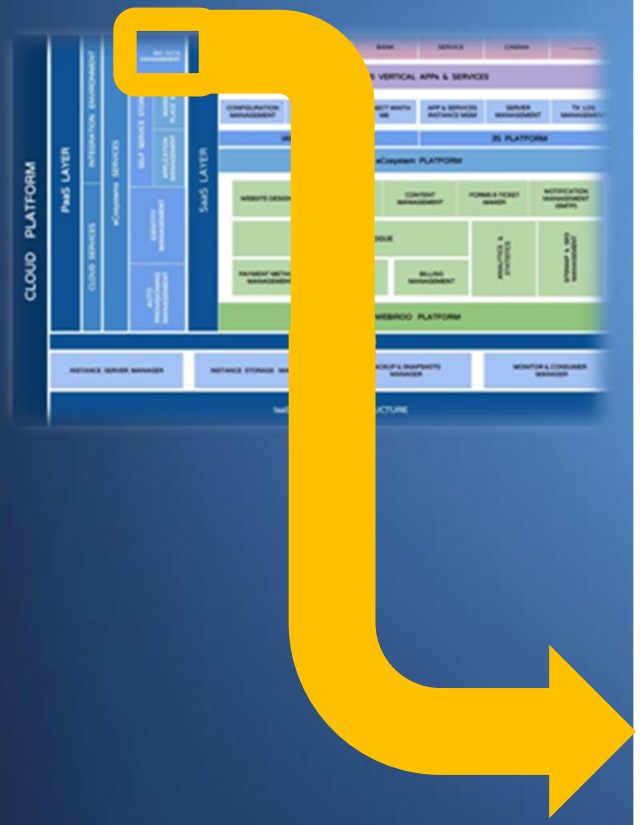
Paas - BIG DATA Behavior MGM

BIG DATA is the service that provides a set of processes able to collecting data from multiple structured or unstructured sources, relating them with the data managed from the Platform and transforming them into extremely useful and timely information. **BIG DATA** is an instantiable service, therefore, the user can use it for himself and also offer it as a service to his clients.

It provides the configuration and administration tools of all the necessary parameters to model the behavior of the processes involved in the extraction, transformation and loading of data from structured or unstructured sources (SQl and NoSql), the definition of scenarios by way of dimensions for analytical processes and trigger thresholds for notification processes

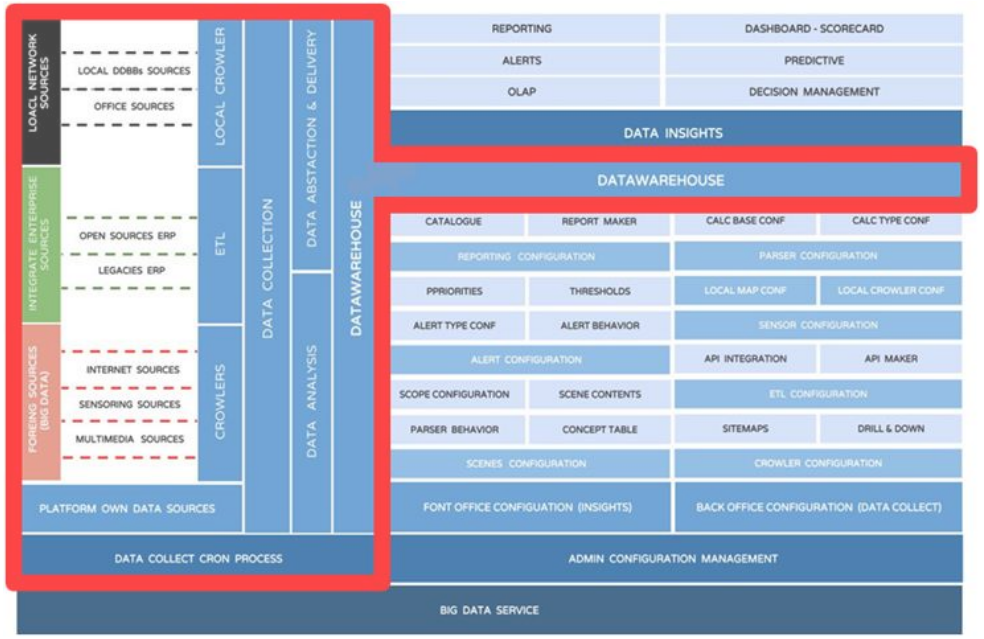


The automation of the transformation processes turns out to be a key factor in the success of the management. **BIG DATA** provides functionality for the integral management of ETLs managing customizable and parameterizable crawlers (or robots), able to of gathering the necessary information to focus on data collection management and prepare it for further processing. Likewise, in the processes of exploitation, it decouples and abstracts the business logic by providing parsers, whose behavior is parameterized through the scenario configurator



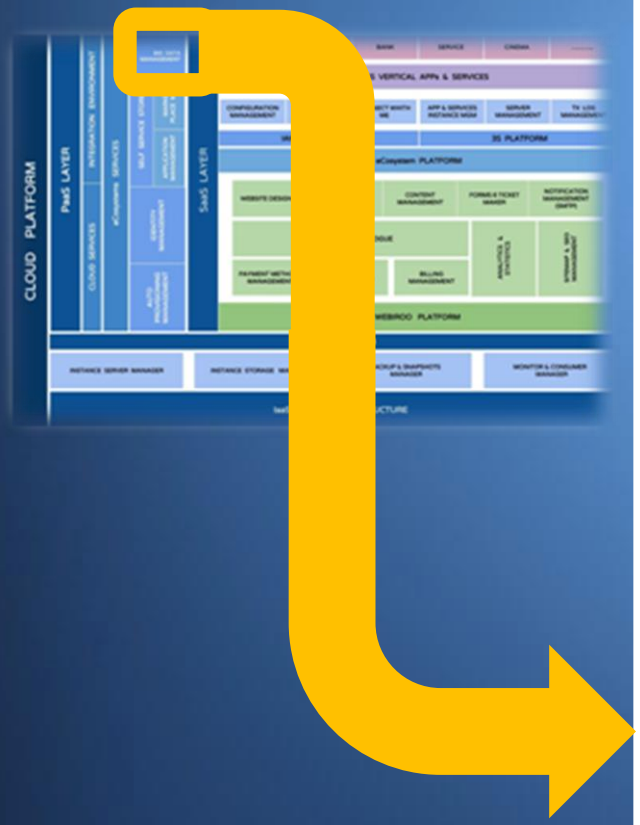
Collect data from four kind of sources :

- Data managed from the Platform, therefore does not require interpretation protocols
- External Data generally unstructured, NoSql. CROWLERS for extraction and transformation required
- Data of Services integrated to the Platform. ETLs management for their extraction and transformation requiered
- Local Data, it is office computing and local DDBB. CROWLERS of local action for extraction and transformation required



Paas - BIG DATA ETL MGM

In order to update the knowledge base. It´s necessary to constantly feed data available in different public sources, from official, standardized and structured reference platforms (eg: Eurostat, the National Institute of Statistics, national and international sports federations, IMF, UN, ...) up to "unofficial" sources, generally plain text or with low levels of structuring (blogs, news from digital media or even Wikipedia itself). **WEaaS CROWLERS** solves this second assumption based on semantic processes supported by ontologies.

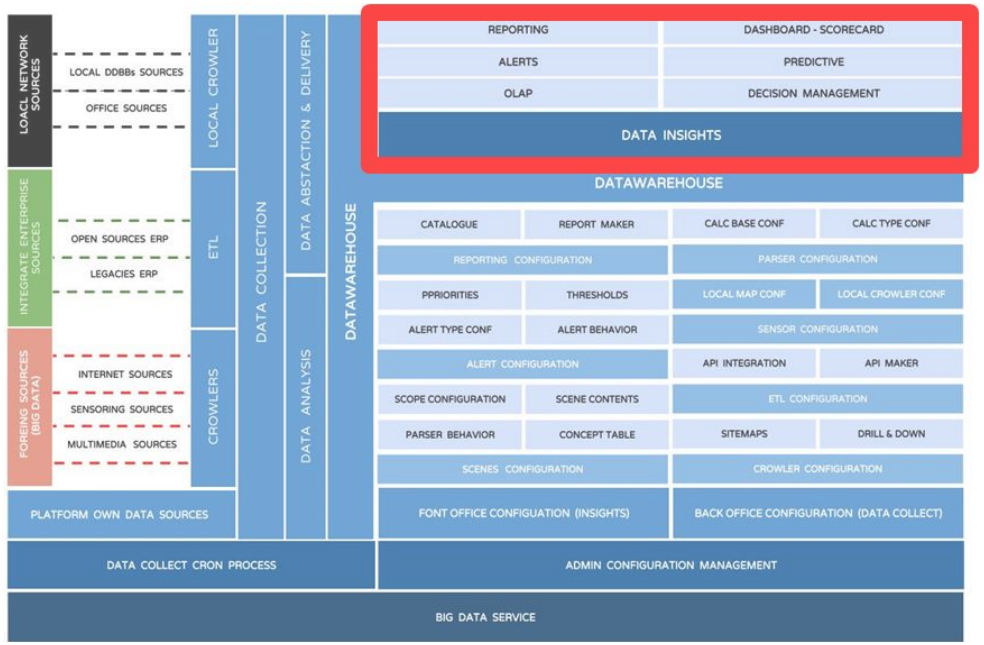


Paas - BIG DATA Exploitation MGM

The System presents a toolkit for the production of analytical, predictive, OLAP,Decision Maker and Alarm Management information.

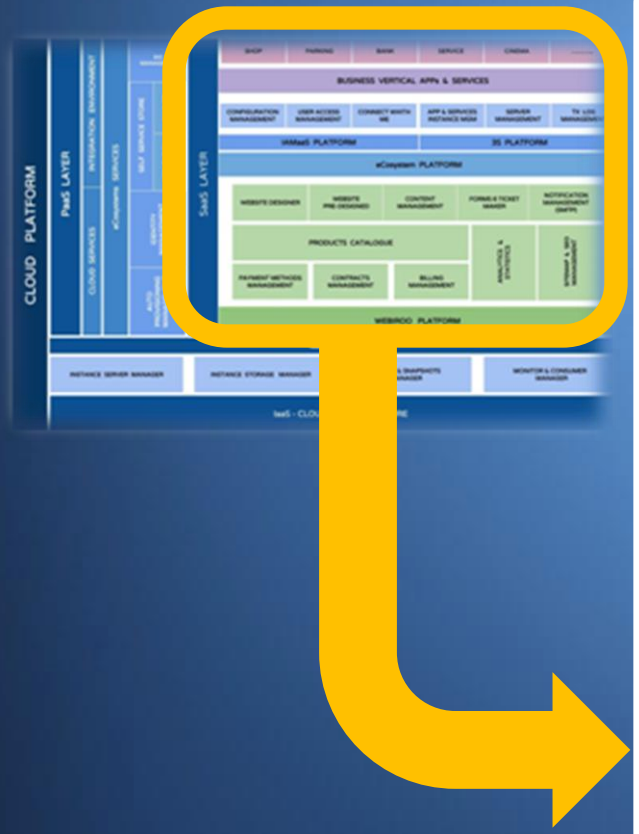
These tools are stimulated from previously configured scenarios and parsers, such that the logic of behavior and the results delivered will be according to the logic of behavior, segmentation and previously defined dimensions. Both the queries and reports and the configured scenarios are reusable and catalogable.

Through the Configurator, the user defines the behavior of the types of calculation and the calculation bases involved in the process and used by the analytical tools



The business logic resides in the parser component.

This management offers abstraction and decoupling of the process with respect to the data model, the parser component being the one that will give meaning to the content of each element of the data model



SaaS Layer

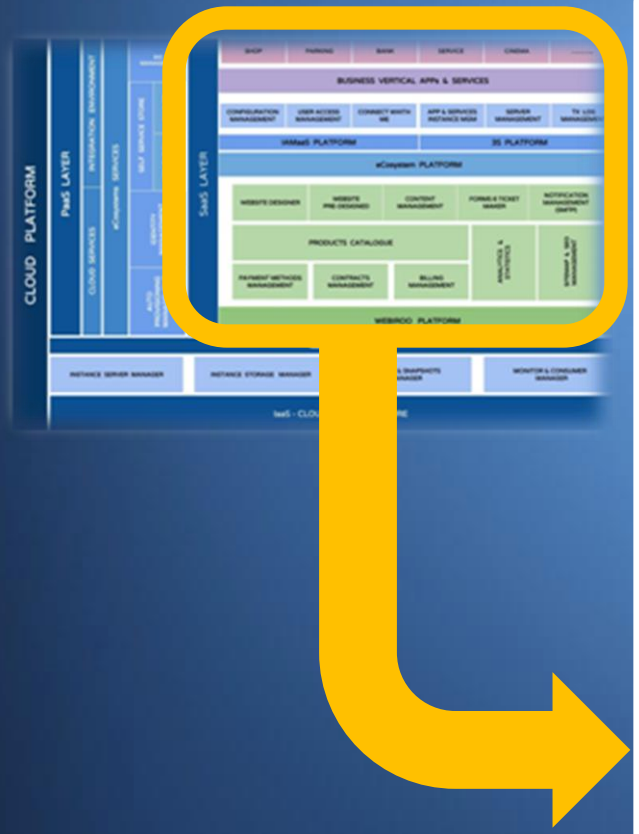
WEaaS offers the management of information strategy in an agile and simple way, since in addition to meeting the need for Applications as a Service, it will resolve in a transparent way the end user many issues surrounding the start-up and maintenance

WEaaS deliveries the automatic software distribution, in this way the client receives the access, maintenance, support and operation during the contracted time, who will exploit their services without worries.

It provides all the tools and services necessary for the management of the Software as a Service; both for the Admin User, Clients or Departmental User, in the case of corporate clients. All this is supported by a Management Back End that will allow managing the life cycle of all elements contracted.

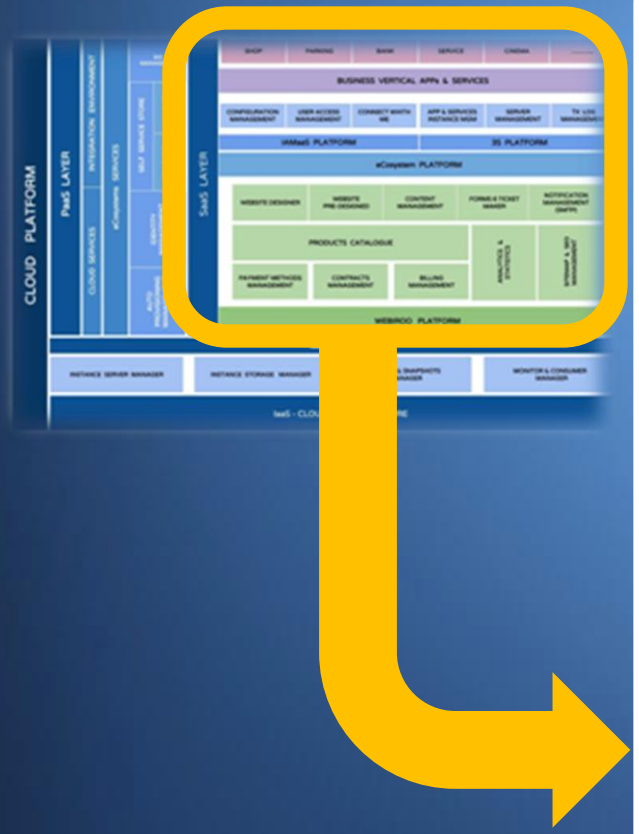
It is oriented towards suppliers and consumers finding the gateway to the world of Innovation and interaction. Where they have the possibility of managing their own services -publicizing or consuming them-, accessing advantages and benefits presented in a simple and intuitive arrangement.

From a functional point of view, the Presentation Layer serves two types of needs. On the one hand allow a dynamic and friendly management for the Admin User and on the other hand, meet all needs of the End User.

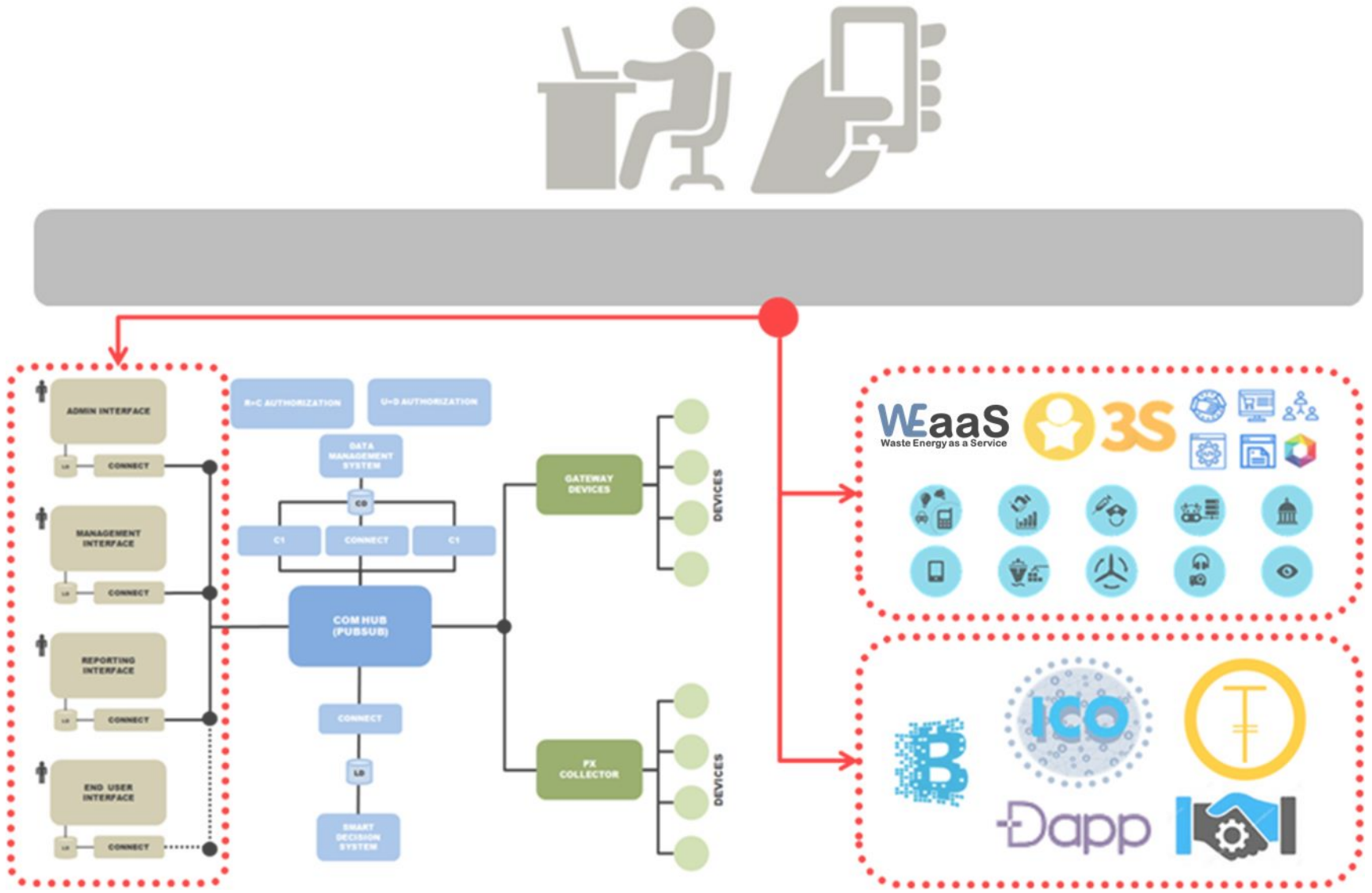


Saas Layer – Main advantages

- Each developed component will be an instantiable functional capsule, so that they can be reused in future instances. Likewise, each component encapsulated and instantiated will be isolated and decoupling the particular data.
- All the instances will dump data on a repository of the Elastic Search type, in this way the users being able to manage business intelligence of primary type, where on the one hand, to nourish each instance with immediate information and, on the other hand, they will have an historical record of all their activities and events
- All registration and authorization operations will be supported by the activity of the Central Authentication System (IAMaaS).
- Each user will have access to their Private Desktop, they can customize their tastes, manage their Services, execute their Applications, access information repositories, receive the latest news and relate without limits, offering multiple configuration and personalization capabilities
- We could summarize the philosophical definition of the Platform saying that it is a Model capable of integrating all market players allowing the management of applications, the comprehensive offer of "things as a service" and its exploitation in business layer



SaaS Layer
Action Scope



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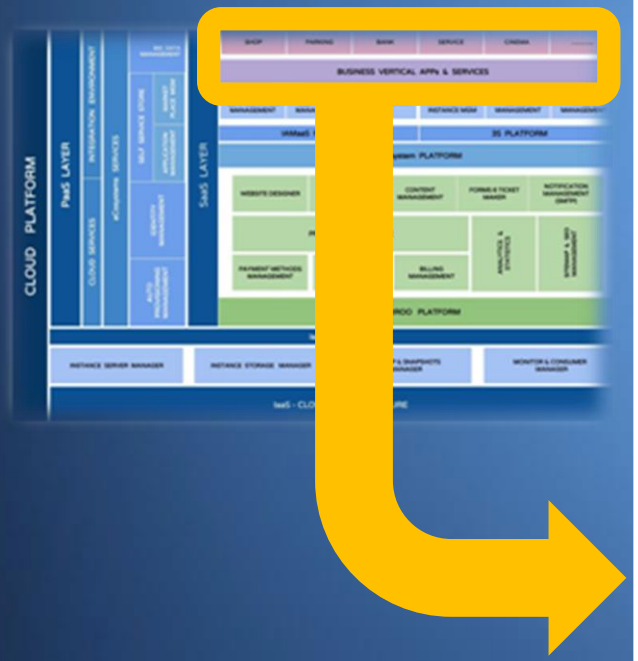
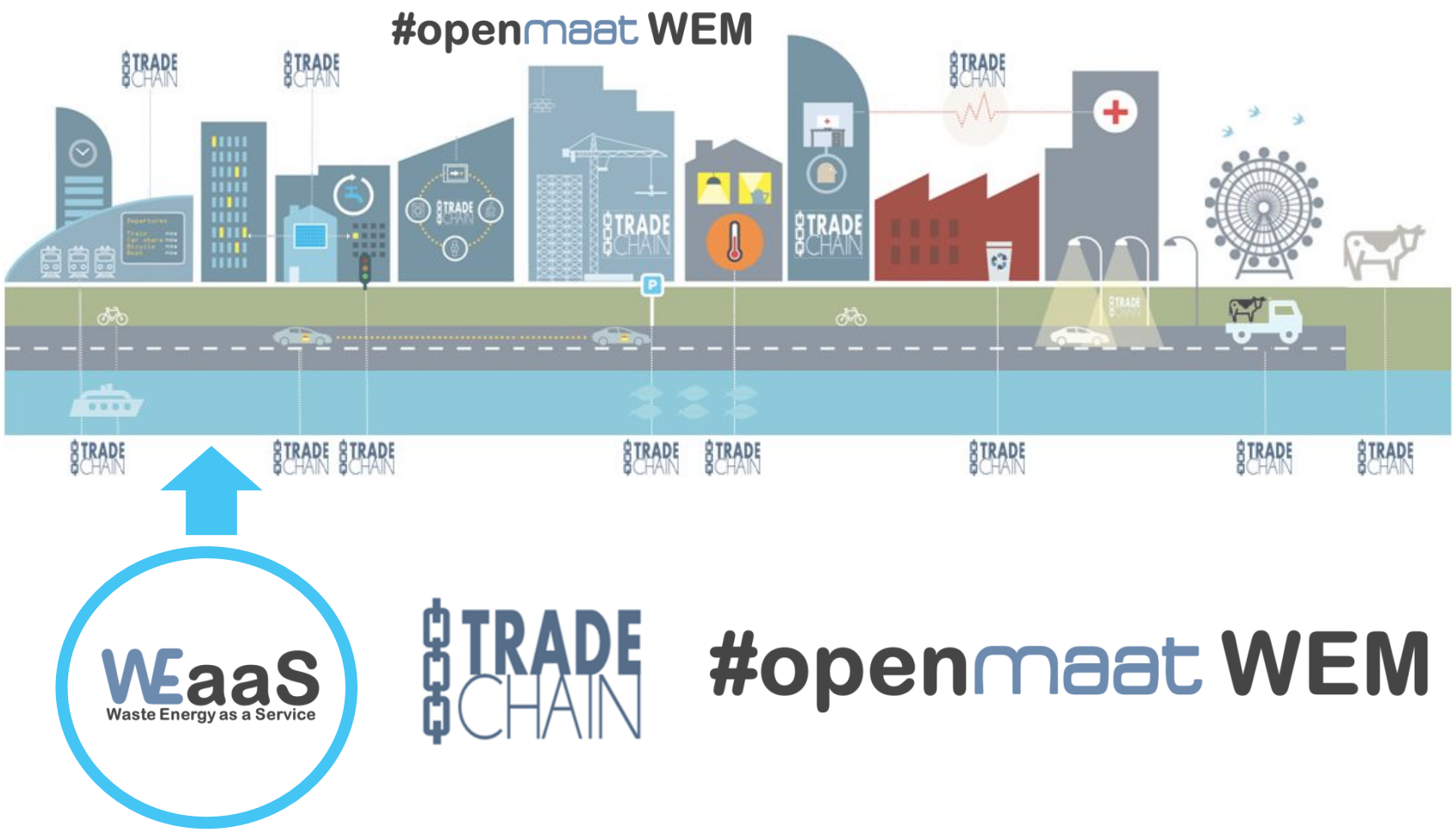
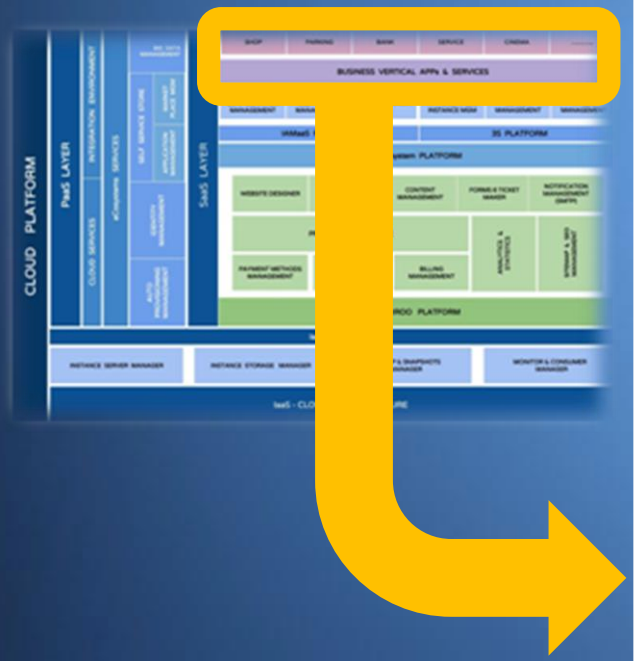
WEaaS
Waste Energy as a Service



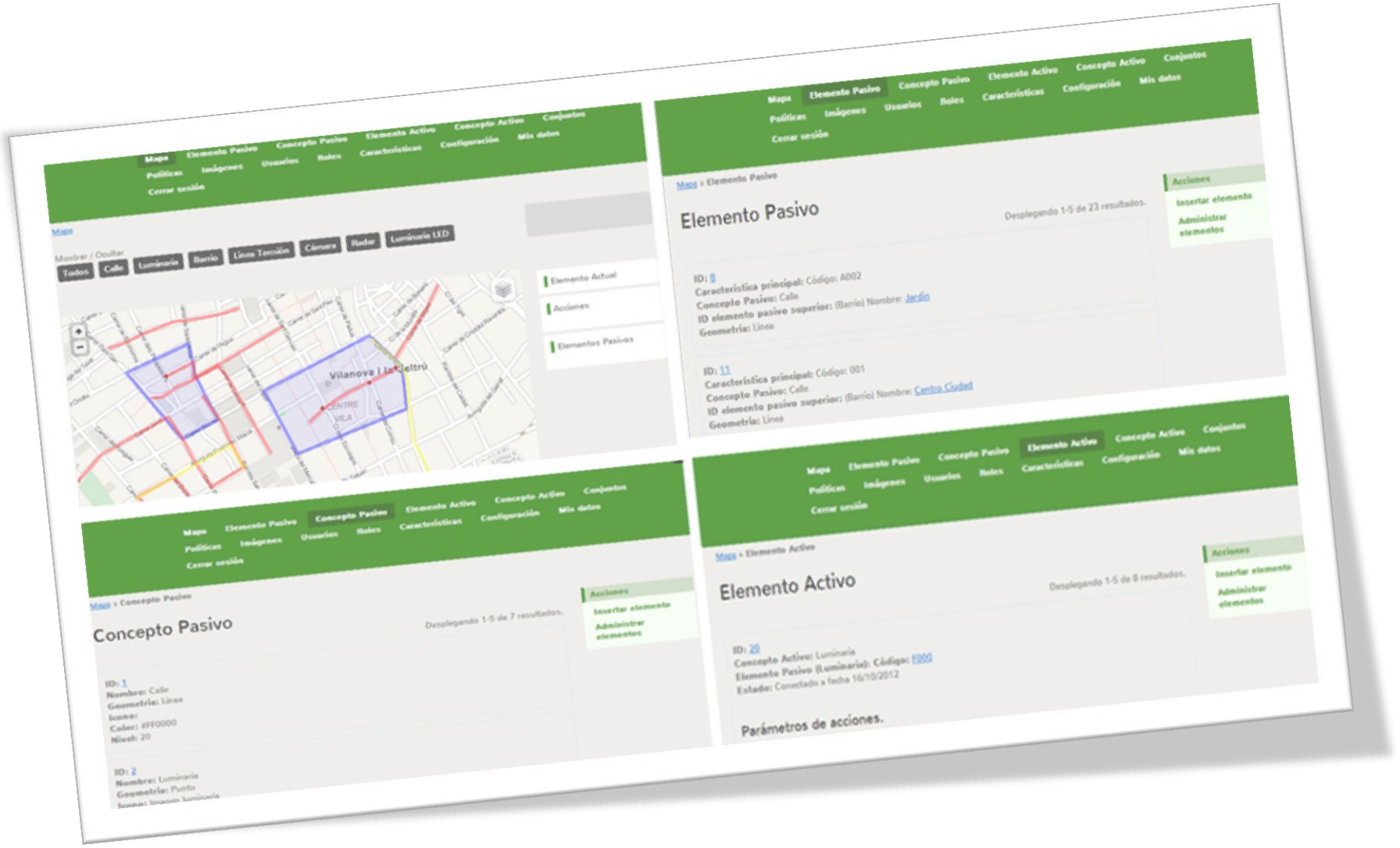


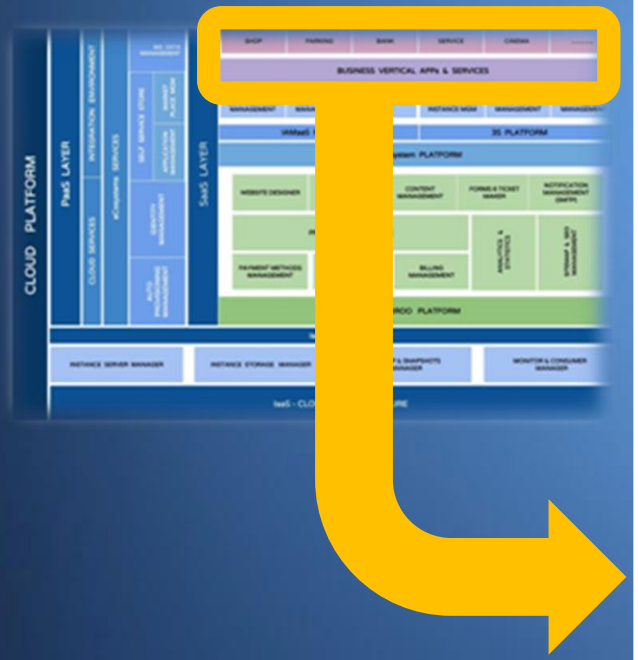
SaaS
Anything as a Service

WEaaS Asset Management -and all its functional components- are Business Vertical System published as a service in the SaaS Layer. **It's about anything as a service: from Software as a Service to Energy as a Service**

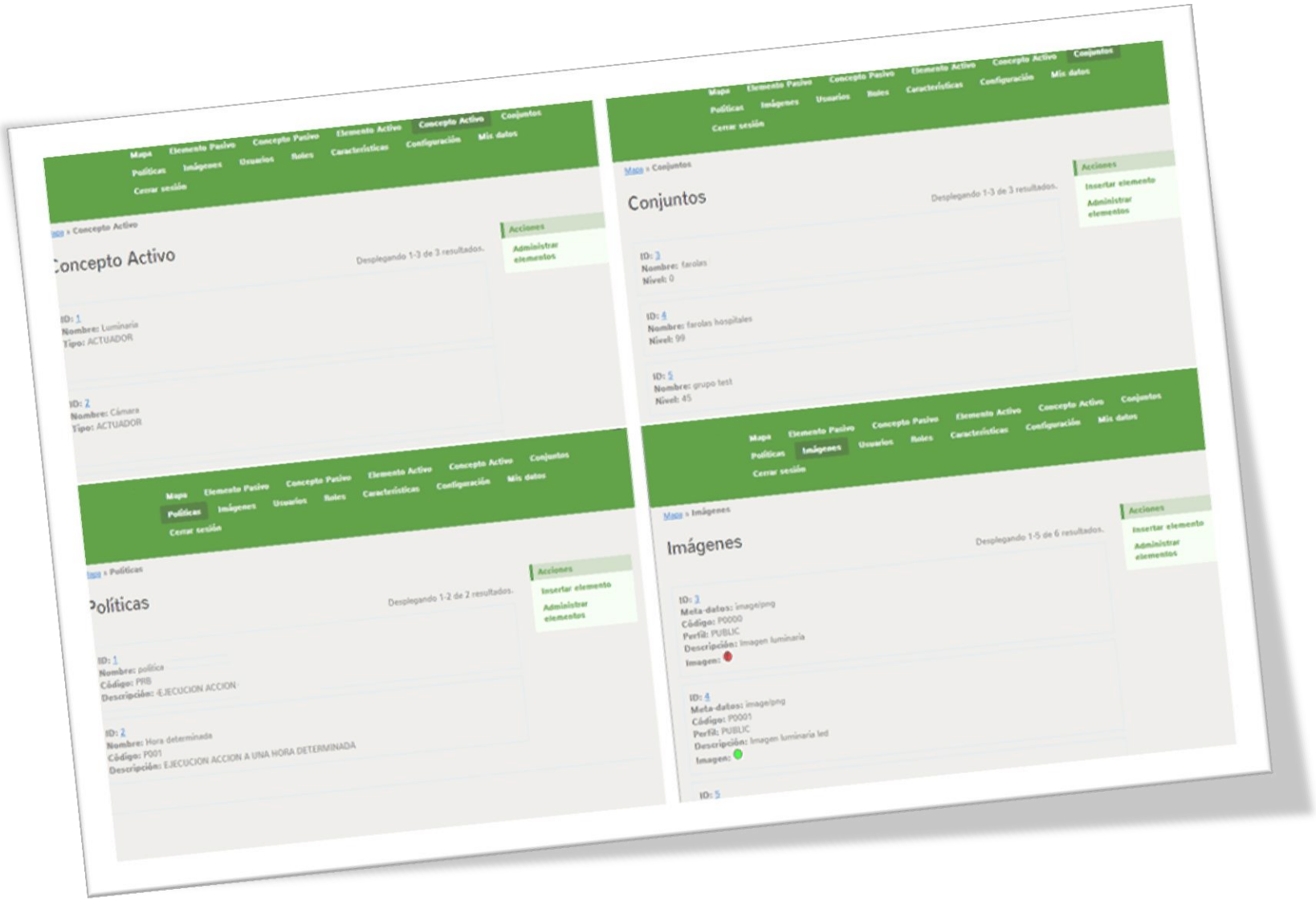


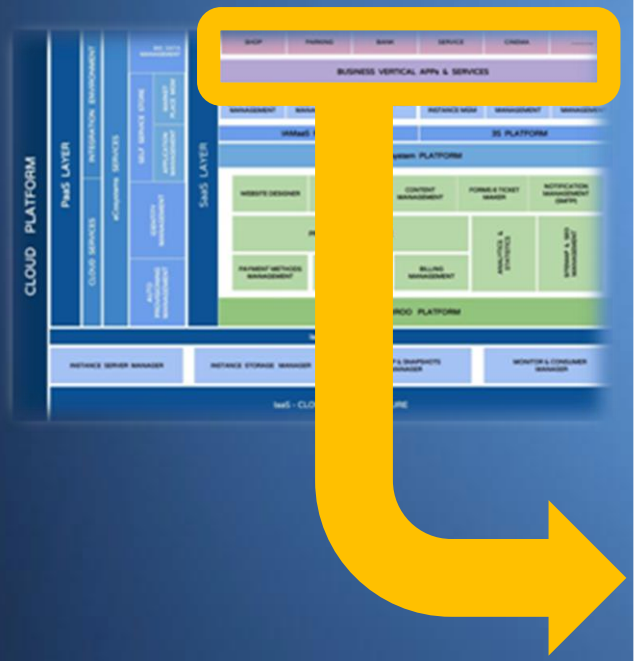
SaaS
Sensor & Devices
MGM Admin
Interfaces



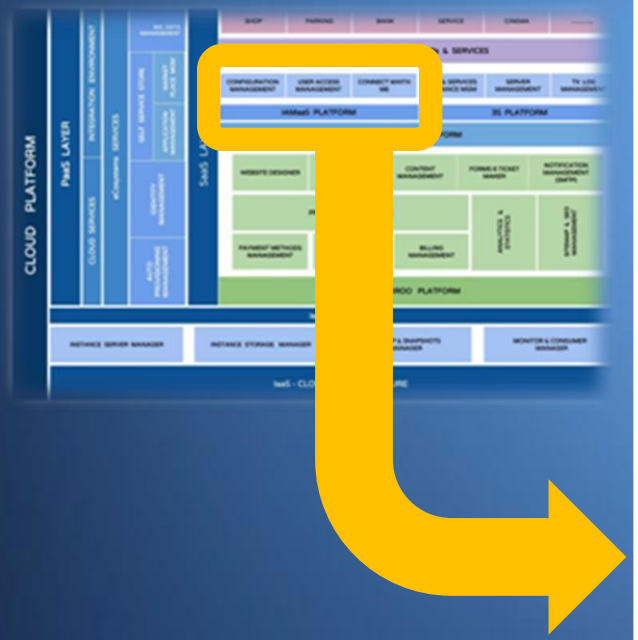


SaaS
Sensor & Devices
MGM Admin
Interfaces



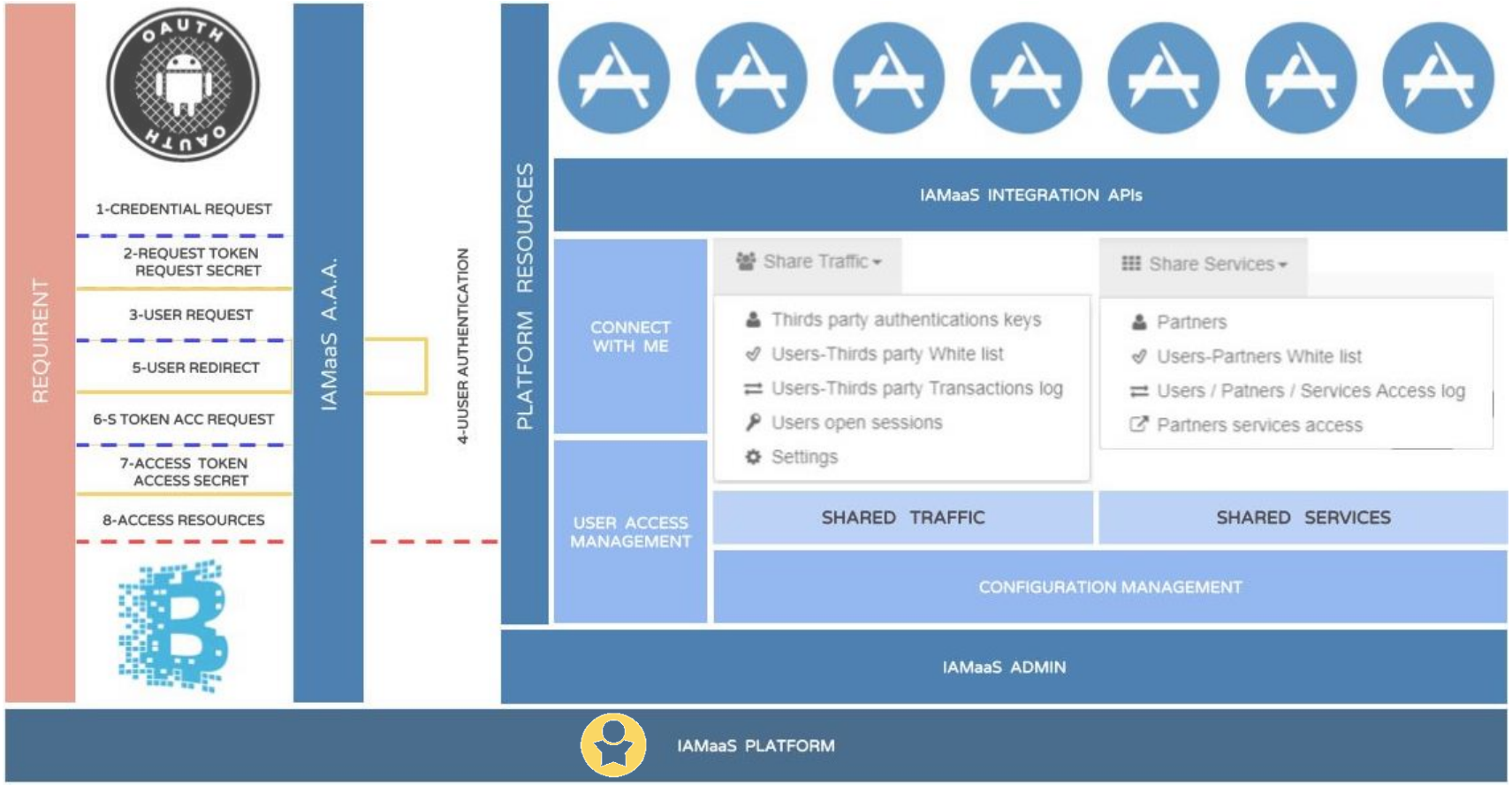


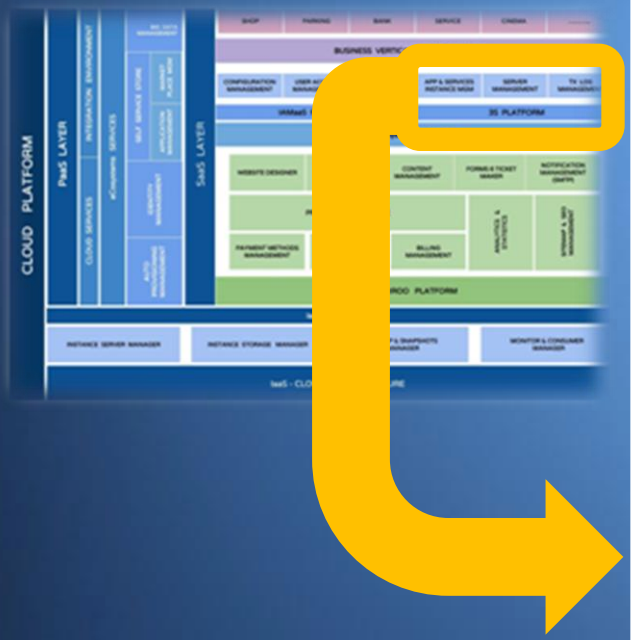
SaaS
Sensor & Devices
MGM Admin
Interfaces



SaaS Identity MGM & New Services Integration Model

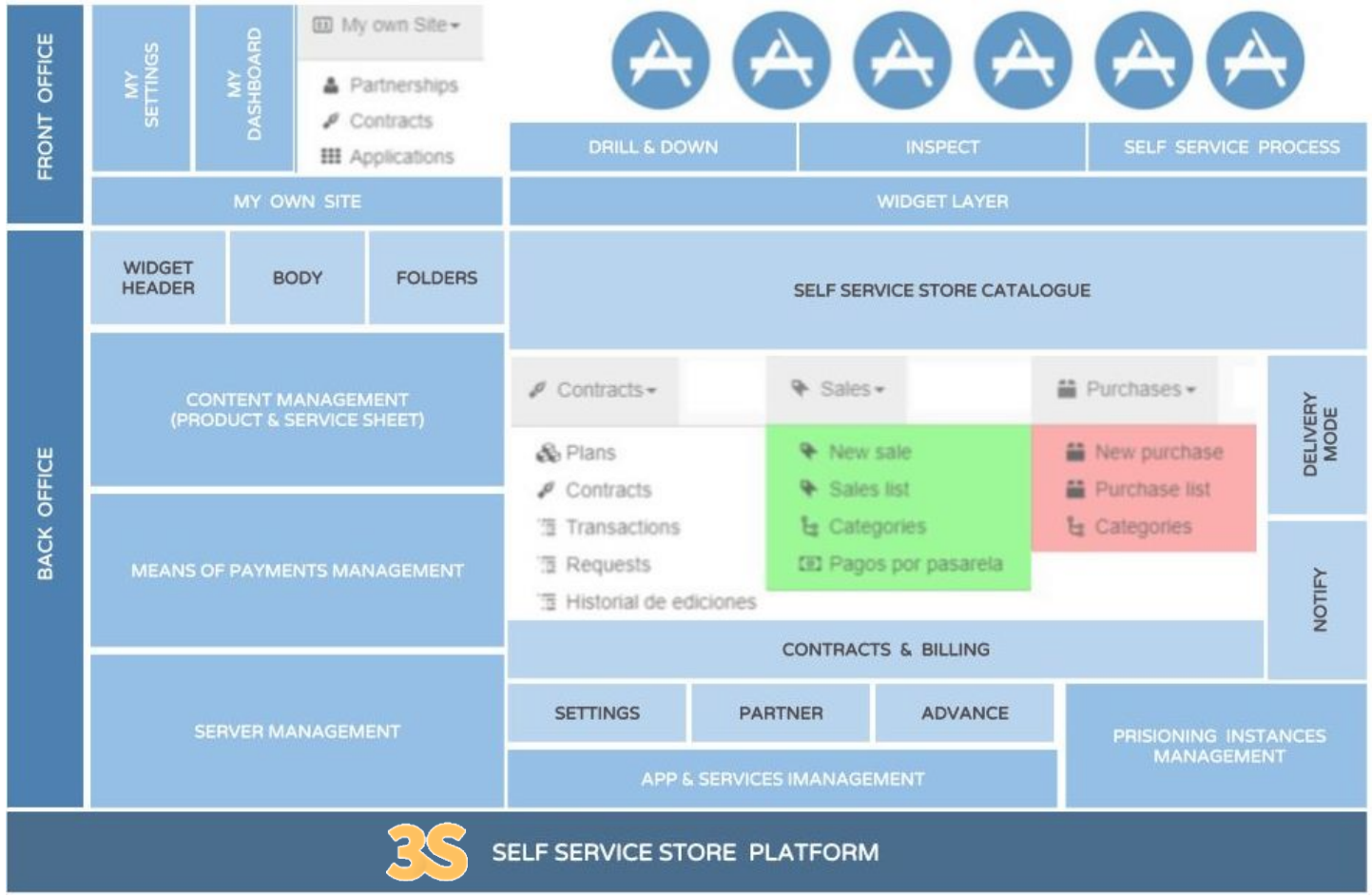
Platform provides entire control of every your users and covering end-to-end chain of authentication, authorization and accounting to all apps from a single entry point. IAMaaS is the point of integration of new services to the Model

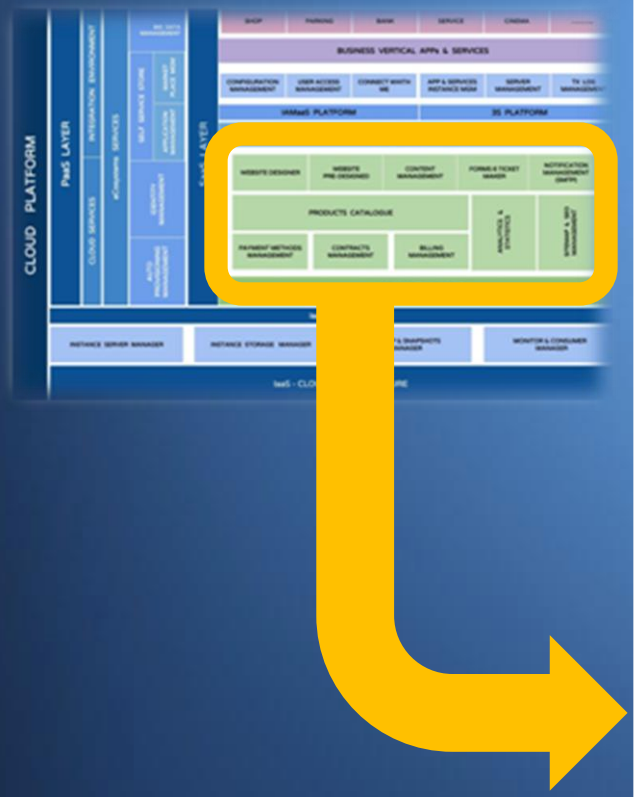




SaaS Collateral Services eCosystem Model

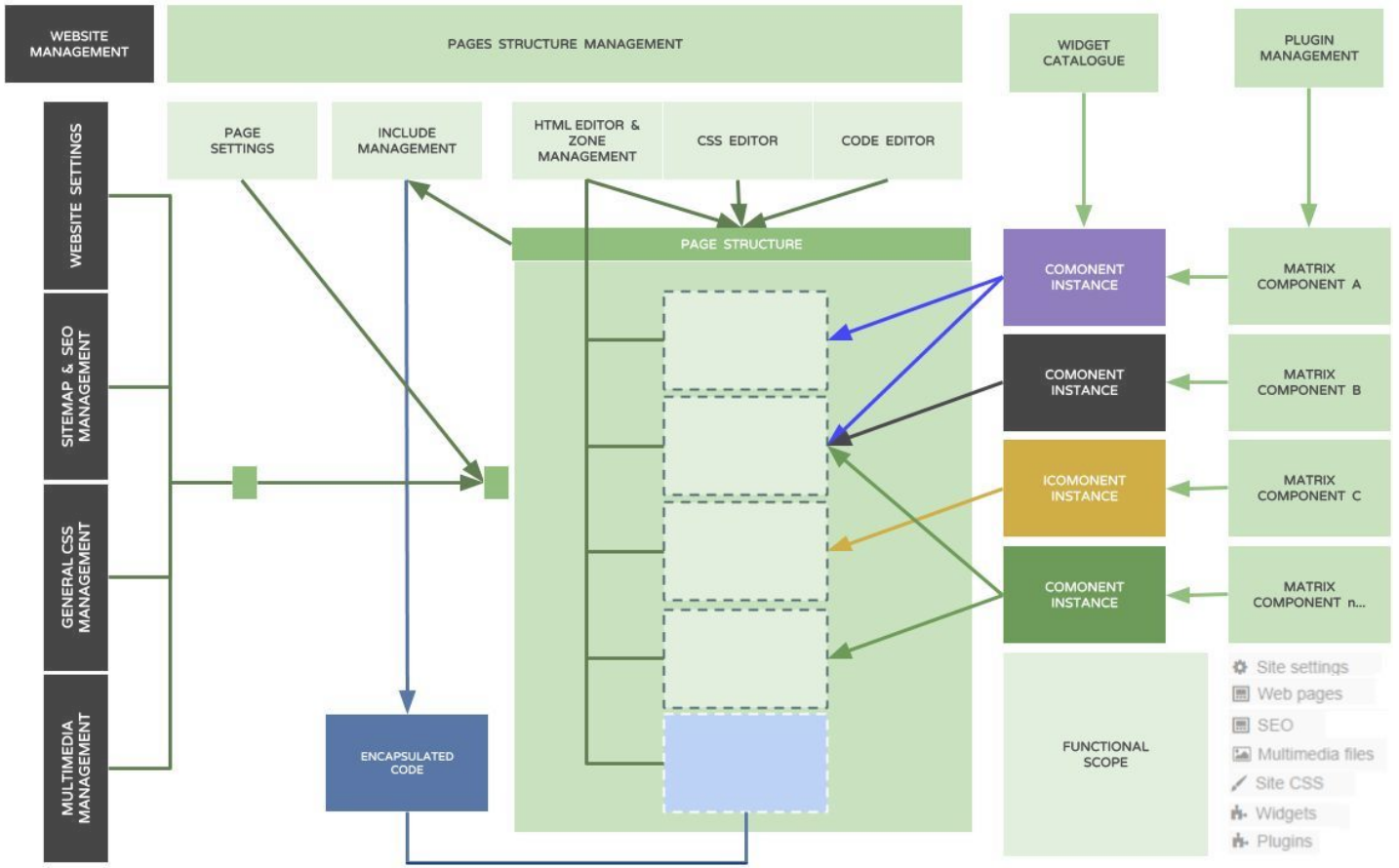
3S eCosystem Maker Platform allows modeling client collateral business strategy. They can develop the end-to-end offering of their services elaborating its detailed description, the illustrations that it deems attractive, configure its business rules and attach the service pack into widget for to be offer an "self service mode"

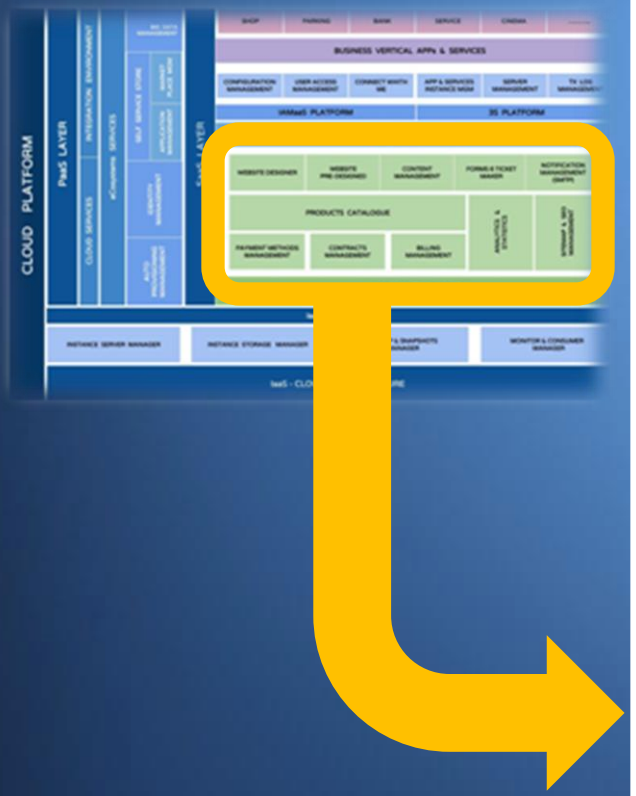




SaaS Collateral Business Own Site Management

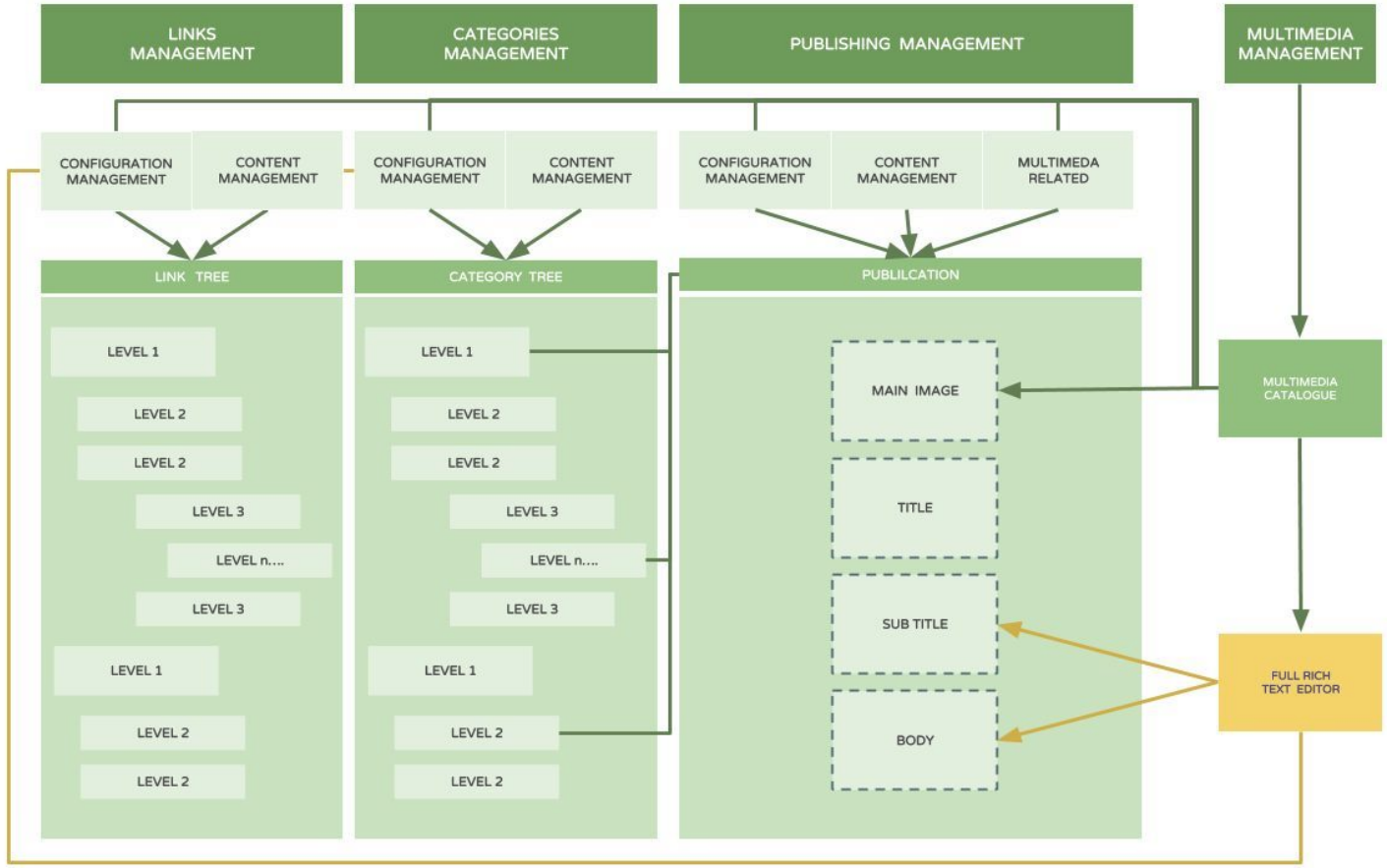
Platform allows creating, designing and configuring the general structure and the particular structures of the Client Site. To this end, the user will have two great options available: Create, design and configure an own structures or selecting a pre-designed structure from the Catalog of Templates

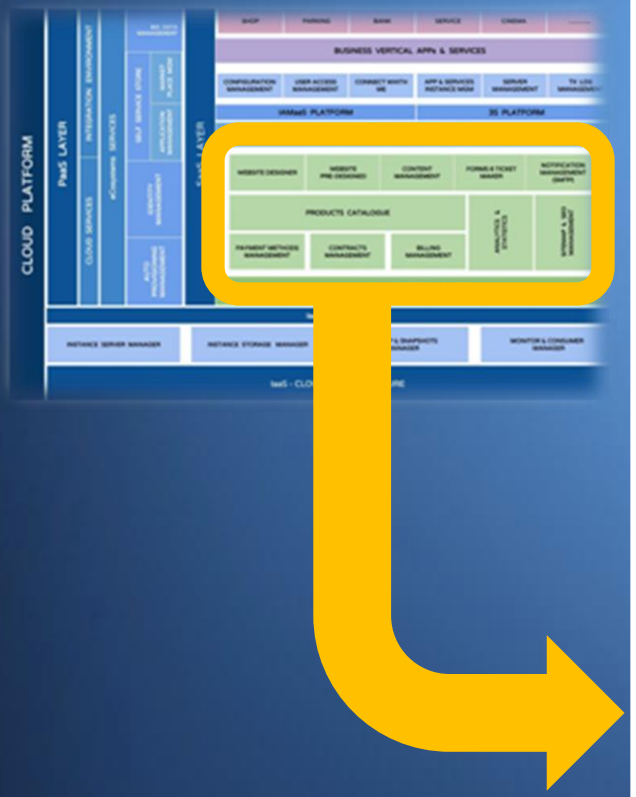




SaaS
Collateral Business Content Management

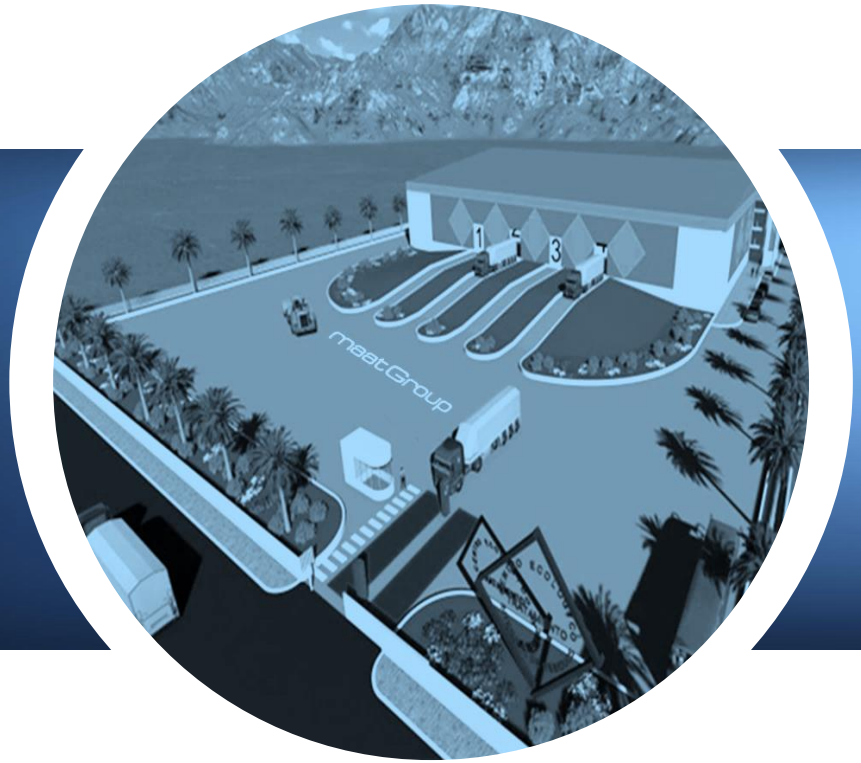
The business logic resides in the Component. Through the Configurator of each component, the user defines the behavior, the source of information that will be presented and the structure in which it will be presented. The decoupling is absolute and any publication can be presented in any structure, be located in any area and be published under any type of grouping





SaaS Collateral Business Typical Deployment

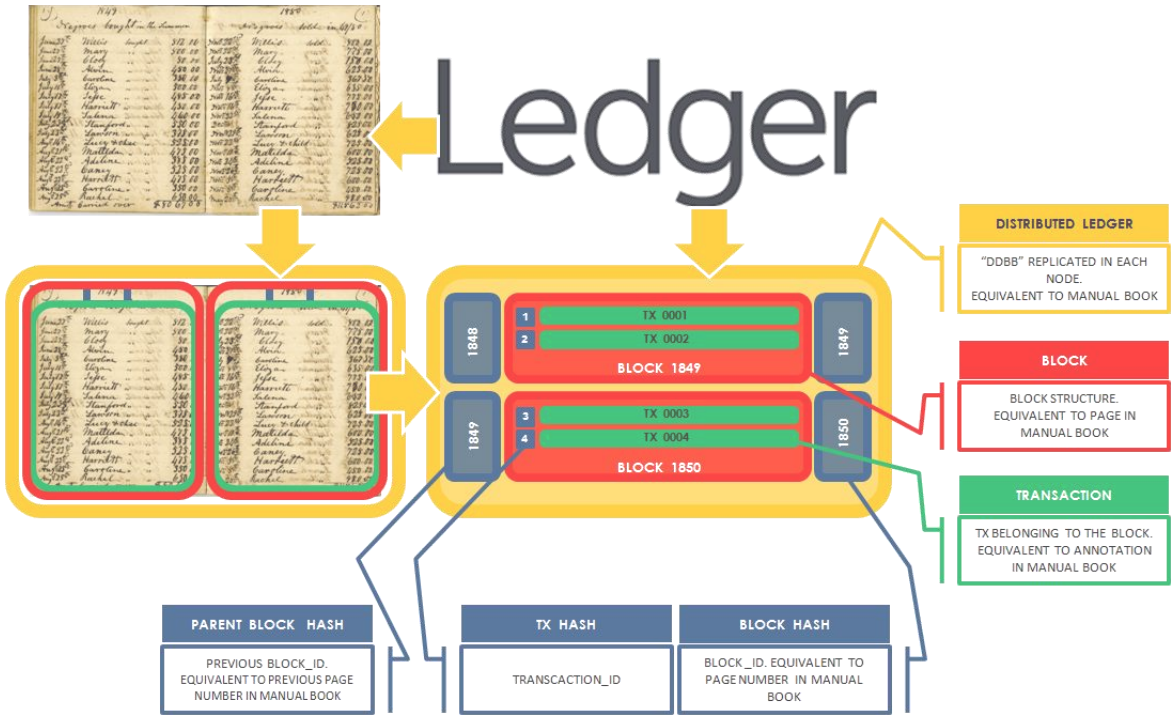
In this figure we describe a typical "***four steps process of business development***" based on **3s eCosystem Maker Platform**, in which a client decides to set up their strategy, integrate and publish their own services, then attract and publish third-party services and finally promote an eCosystem`s Constellation



WEaaS

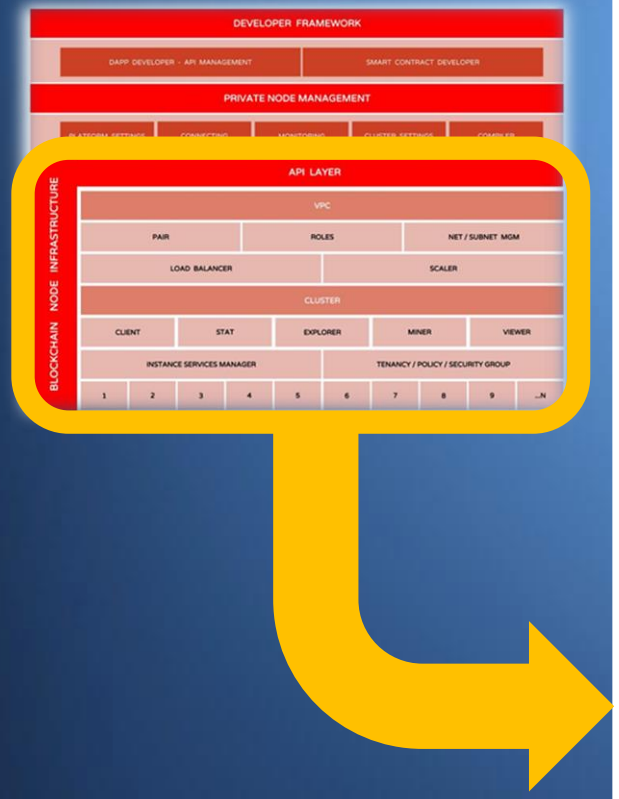
Waste Energy as a Service

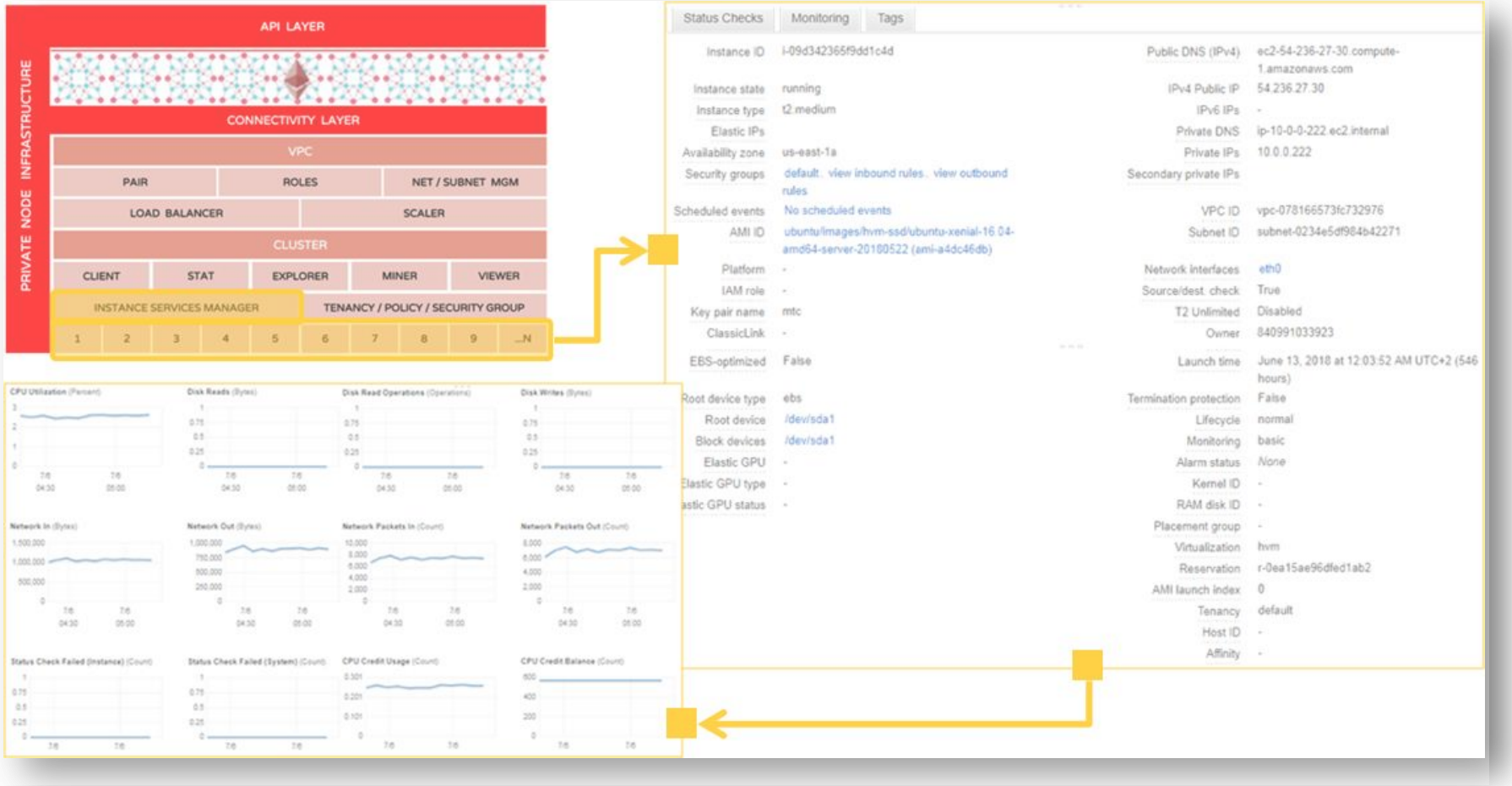
BlockChain Features



Distributed registration -analogy between LEDGER and DISTRIBUTED LEDGER- "**democratizes**" the identification, authentication and transparency of transactions through "peer-to-peer between validation" without third party intermediation. Who dominates **BlockChain** ... will dominate the "**Rules of Trust**" since **BlockChain** technology eliminates the need for a third party to establish connections with each other. All have the same information, therefore, the rules of trust are validated by the community itself, **guaranteeing the security, transparency and reliability of any transaction**.

BlockChain Infrastructure - Elastic Cluster





Instance Deployment

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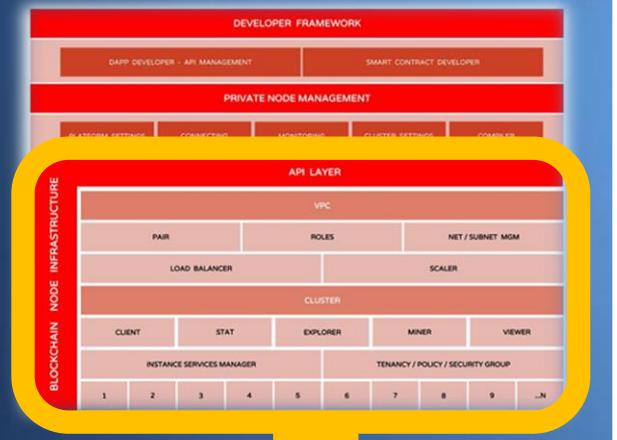
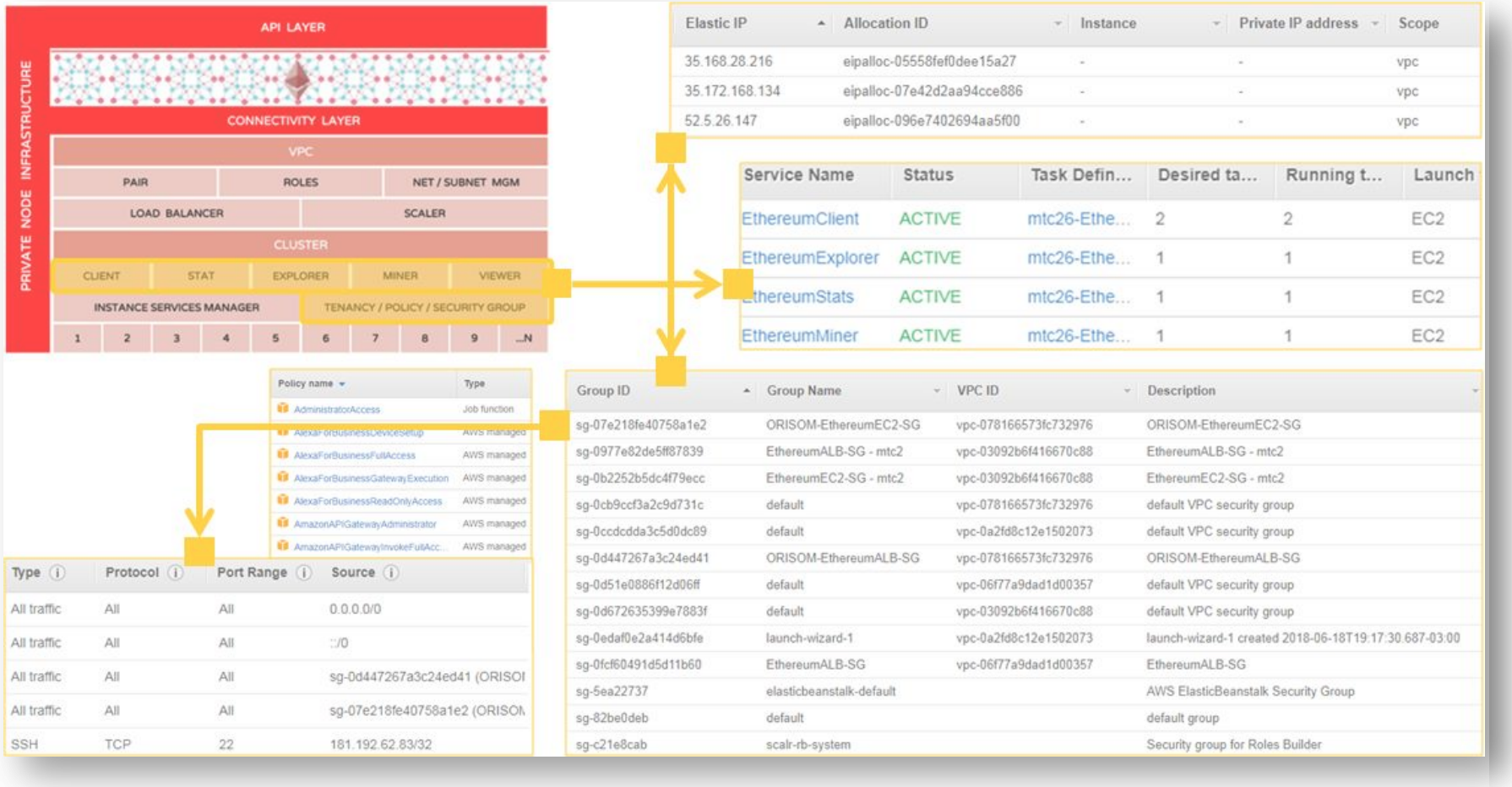
Waste Energy as a Service

BlockChain Infrastructure - Elastic Cluster





Tenancy / Security Group

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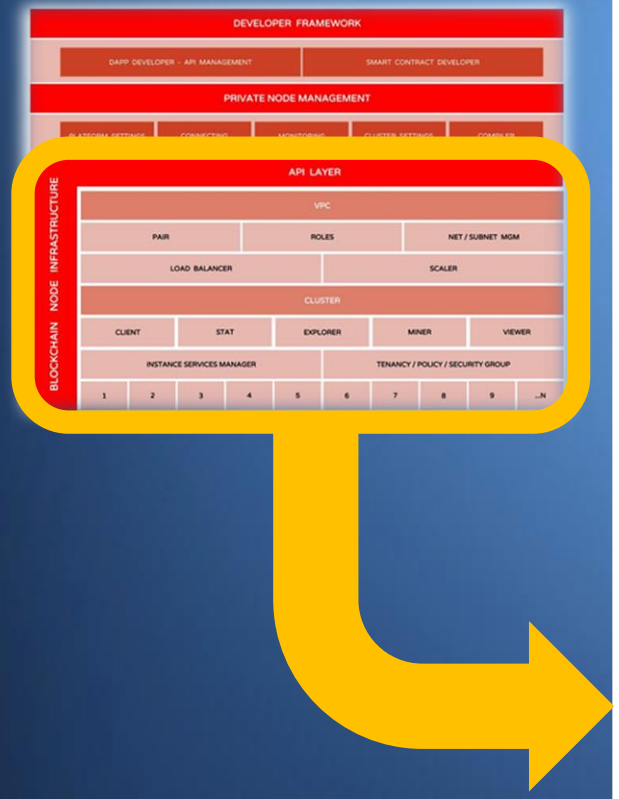
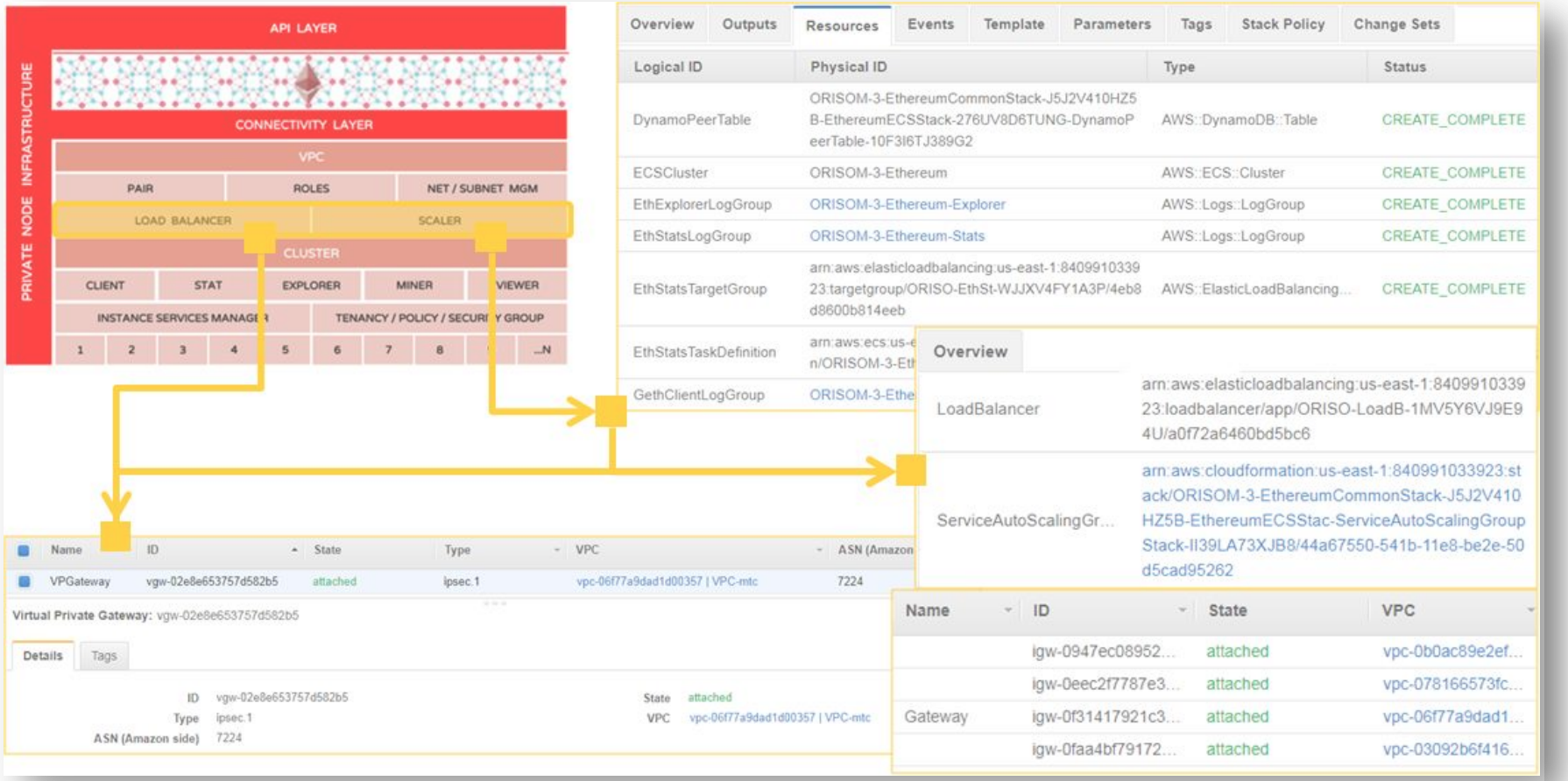
WEaaS
Waste Energy as a Service

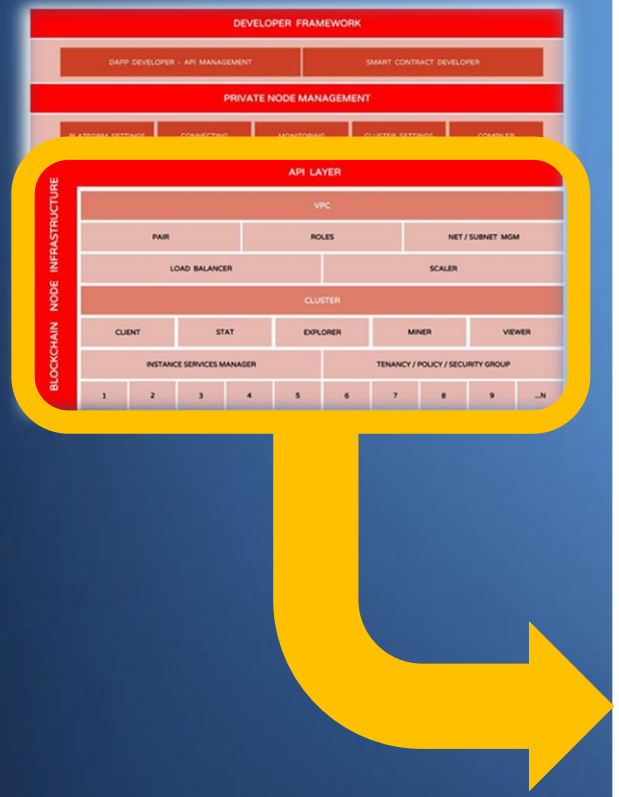
BlockChain Infrastructure - VPC



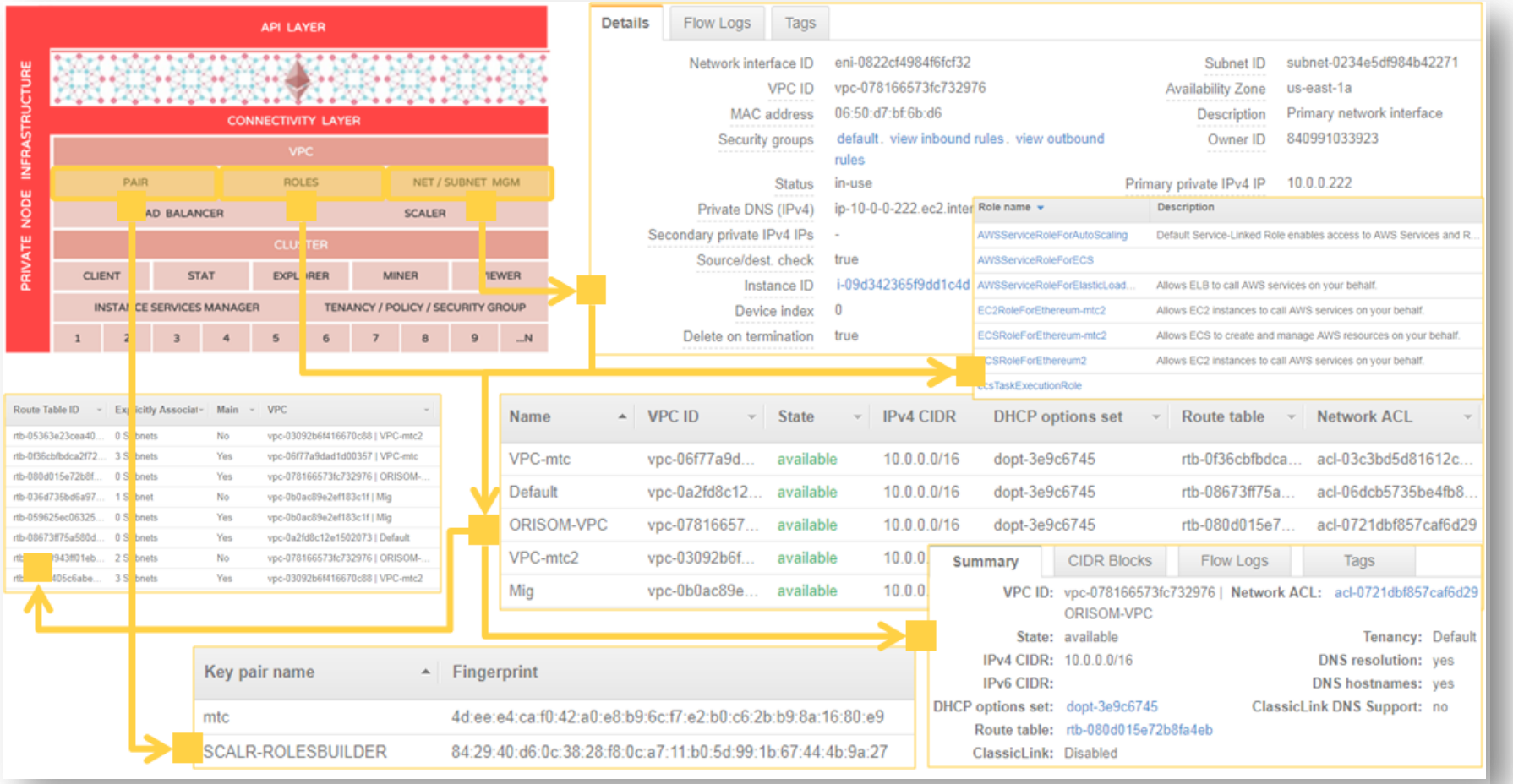
Load Balancer / Scaler MGM



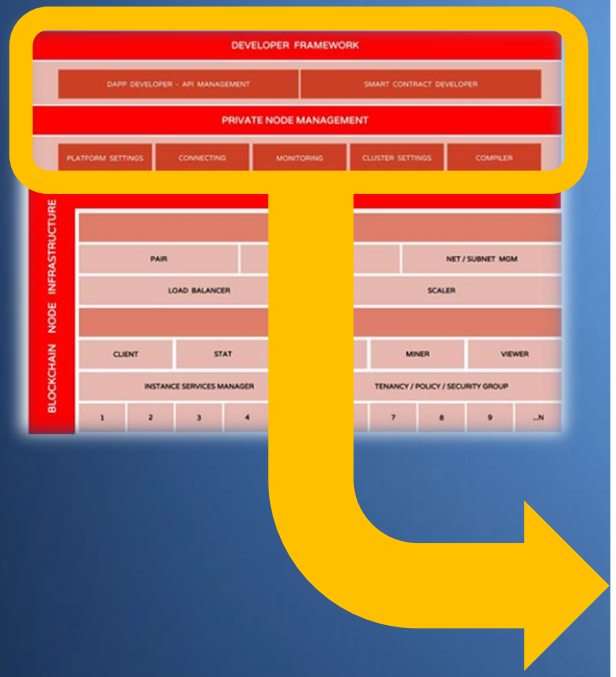
BlockChain Infrastructure - VPC

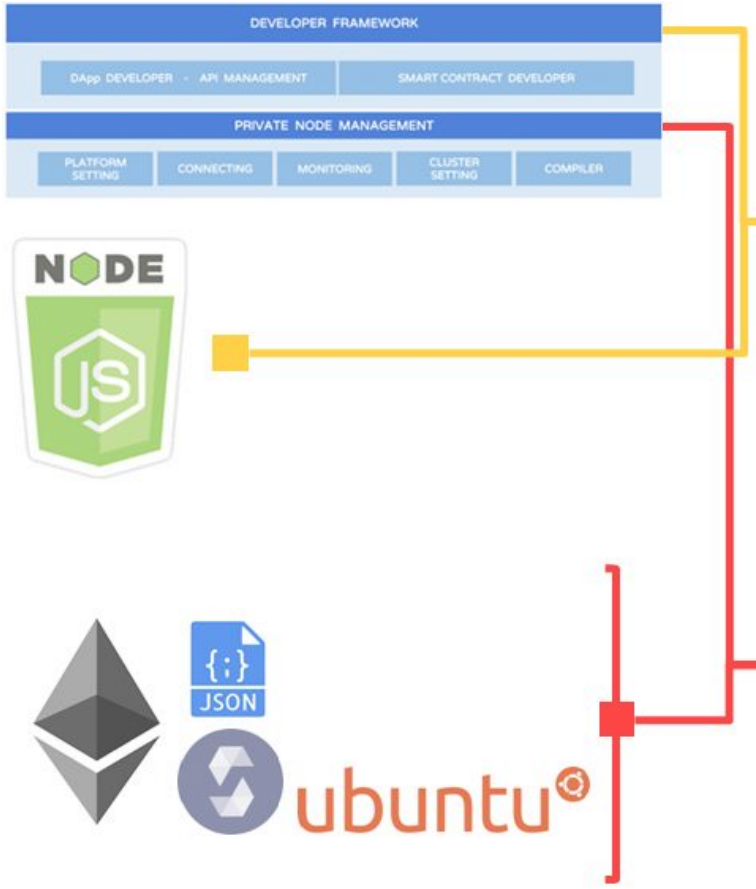


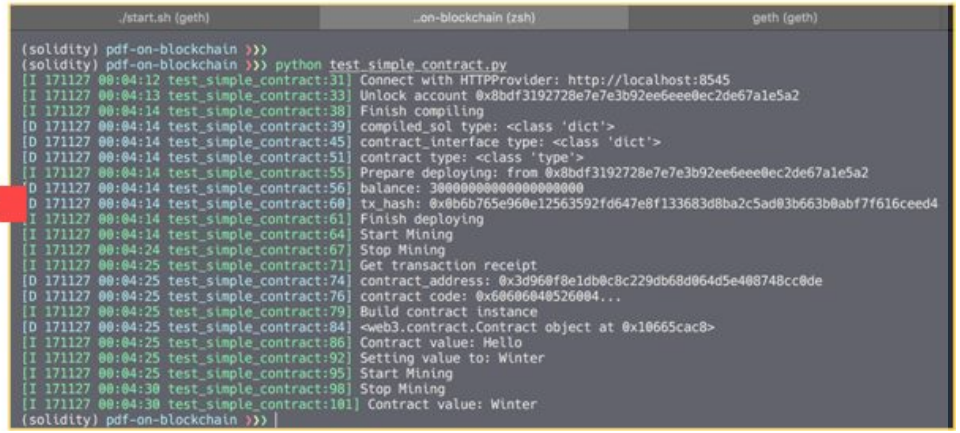
Pair / Role / Network
Subnetwork



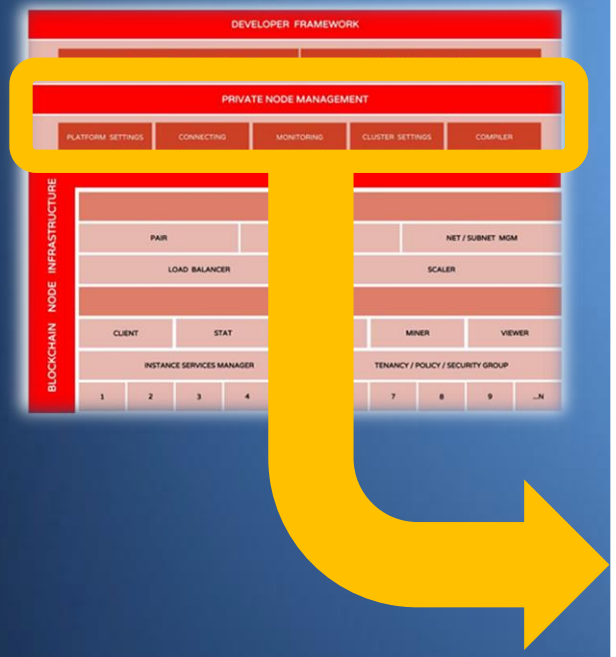
BlockChain Infrastructure - Admin Management





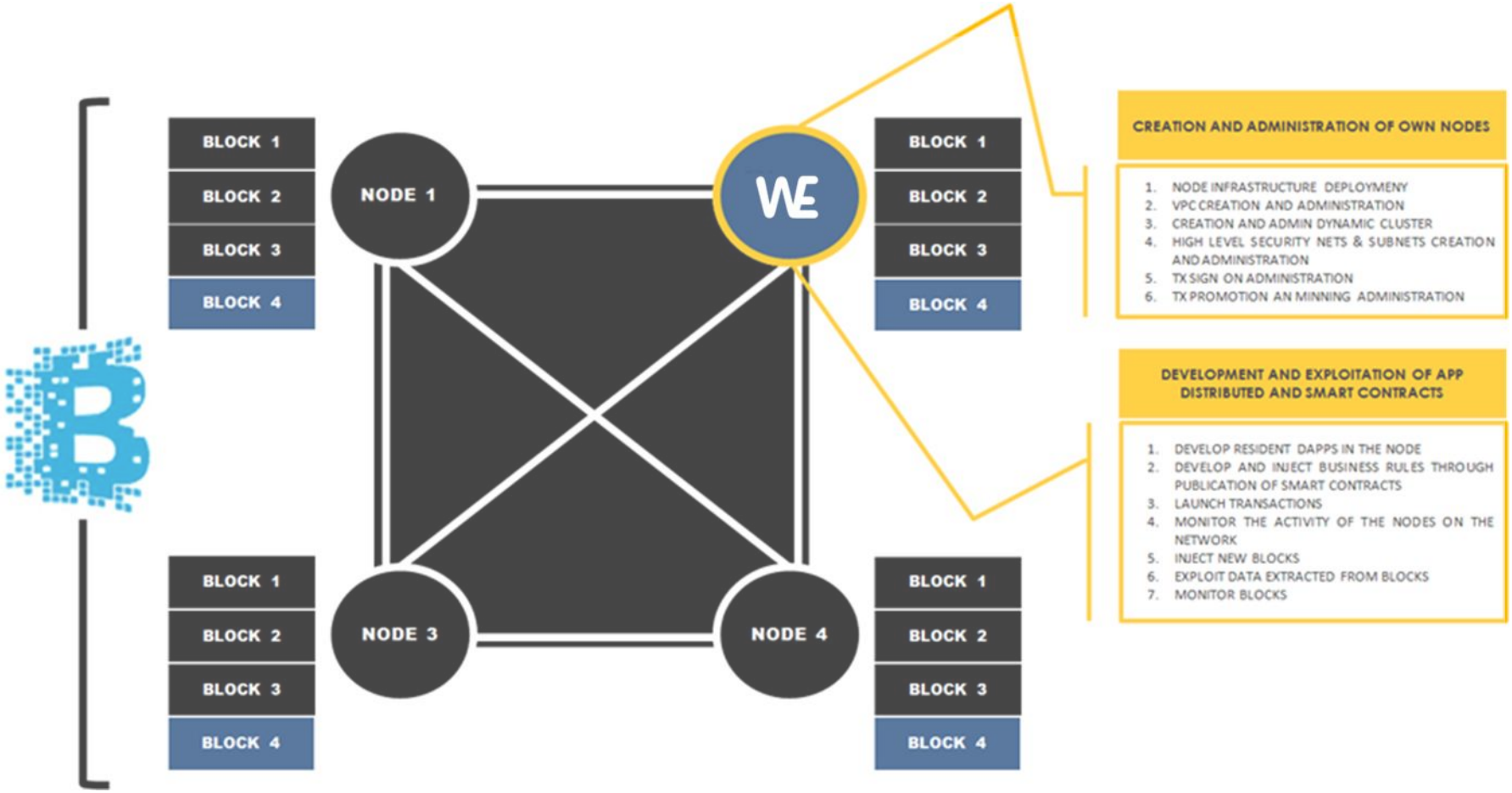


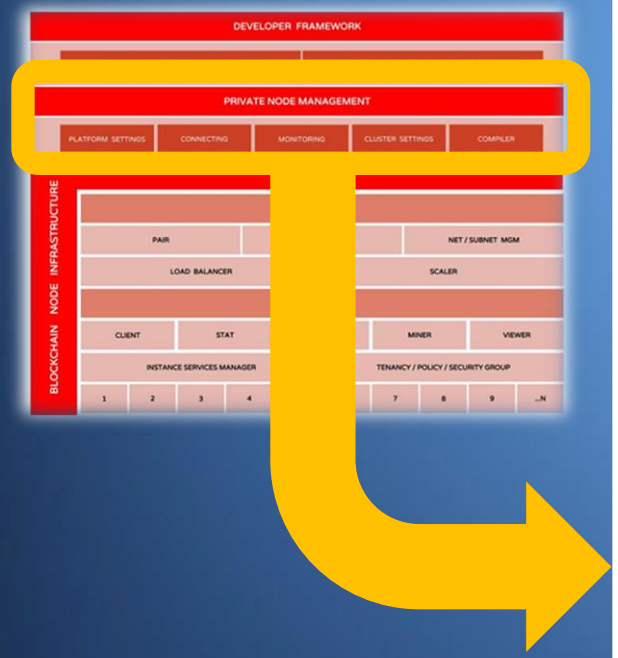
Developer & Admin Framework



Own NODE Management

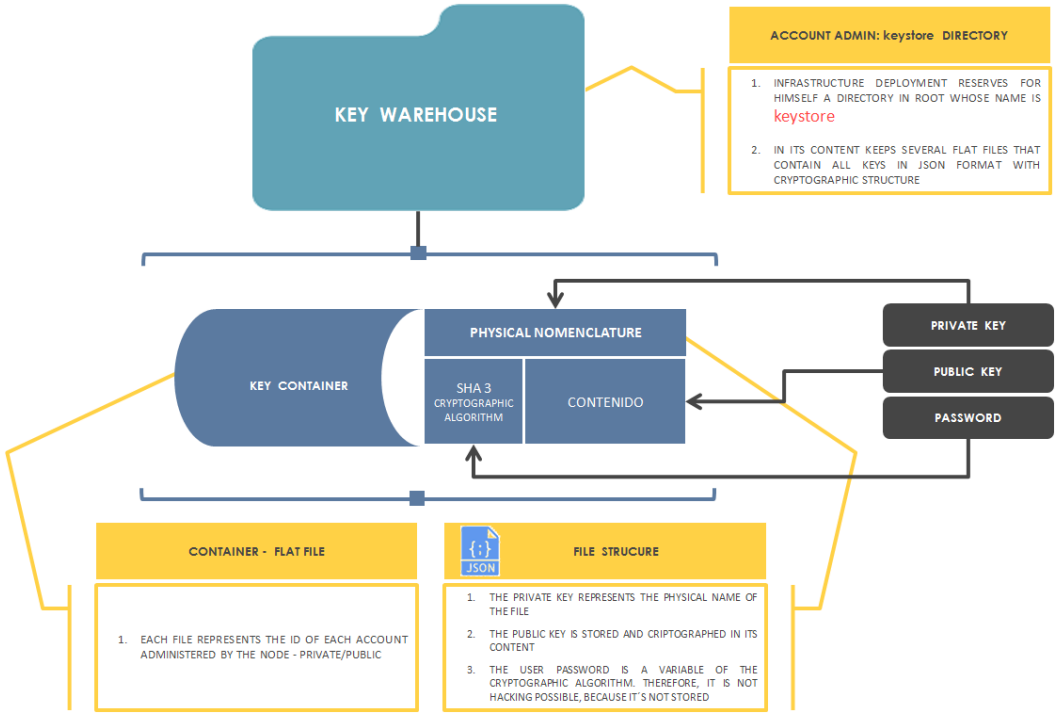
In order to the kind of exploitation and application of the **BlockChain Model,** the focal point is the management and control of **NODES**. Therefore, the Platform provides the ability to create and manage Own Infrastructures and deploy distributed applications that allow executing transactions dependent on smart rules

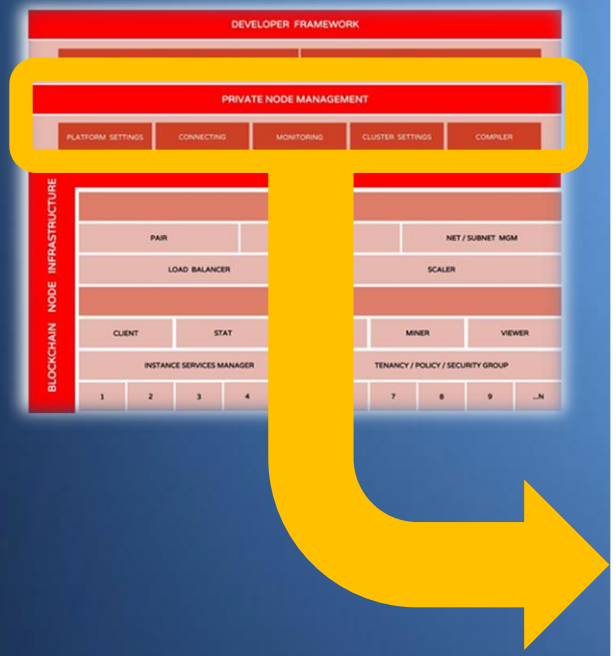




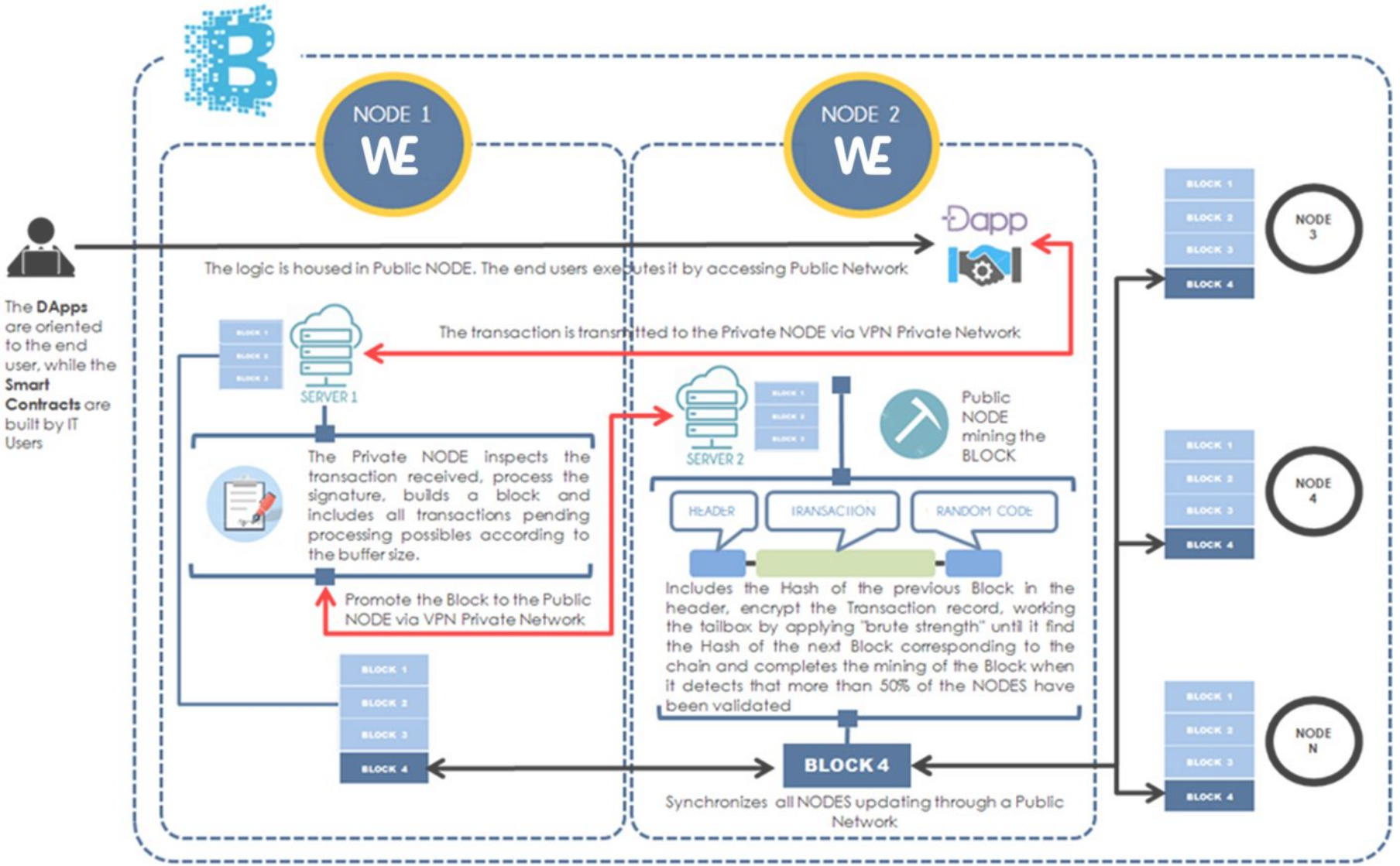
Public/Private Key Admin Model

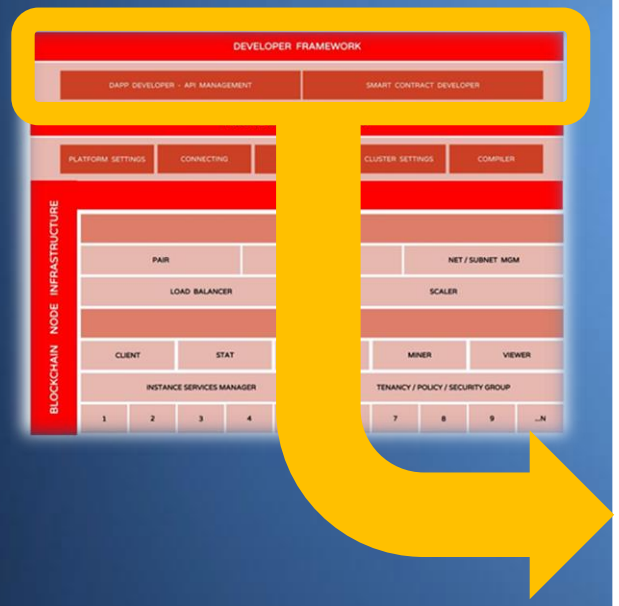
Having control of the NODE gives us substantial advantages. The most relevant ones: It acts as Account Admin, therefore it allows us to control the list of public keys managed by our activity. Although the content is cryptographic and there is no possibility of access, only who has the privilege of Account Admin is the one who can authenticate and therefore sign the transaction. Having control of the NODE gives us substantial advantages. The most relevant ones: It acts as Account Admin, therefore it allows us to control the list of public keys managed by our activity. Although the content is cryptographic and there is no possibility of access, only who has the privilege of Account Admin is the one who can authenticate and therefore sign the transaction. Later the consensus of the Community will be in charge of validating it at time of mining of the Block. It allows us to run the Ethereum Stat and Last Block reports displaying the activity of the filtered BlockChain Net. It means that it offers us the possibility of monitoring the activity of our nodes in a detailed way and being able to deliver the same view to our clients. It allows us to distribute processes between NODES





Process Distribution Model





Rationale Business Model

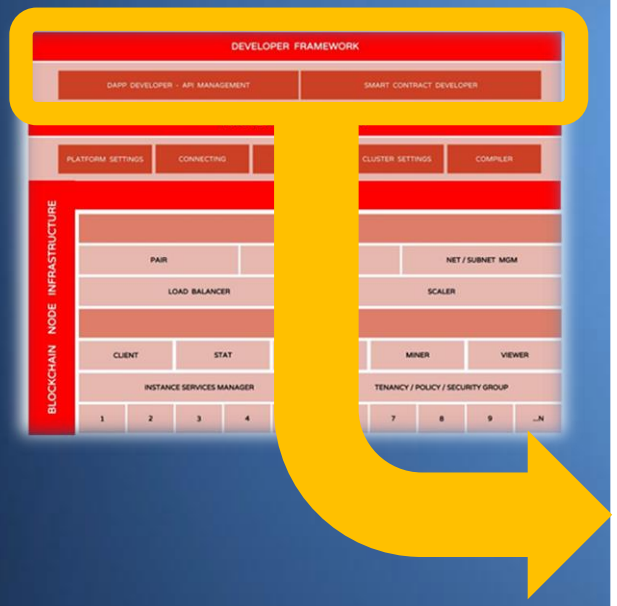
The main settlement is based on **Development of Business Logic** through distributed applications (**DApps**) -which allow to establish a communication interface with the End User- and **Smart Contracts** -which allow to model the execution rules under the Action-Reaction principle-.

Distributed Applications

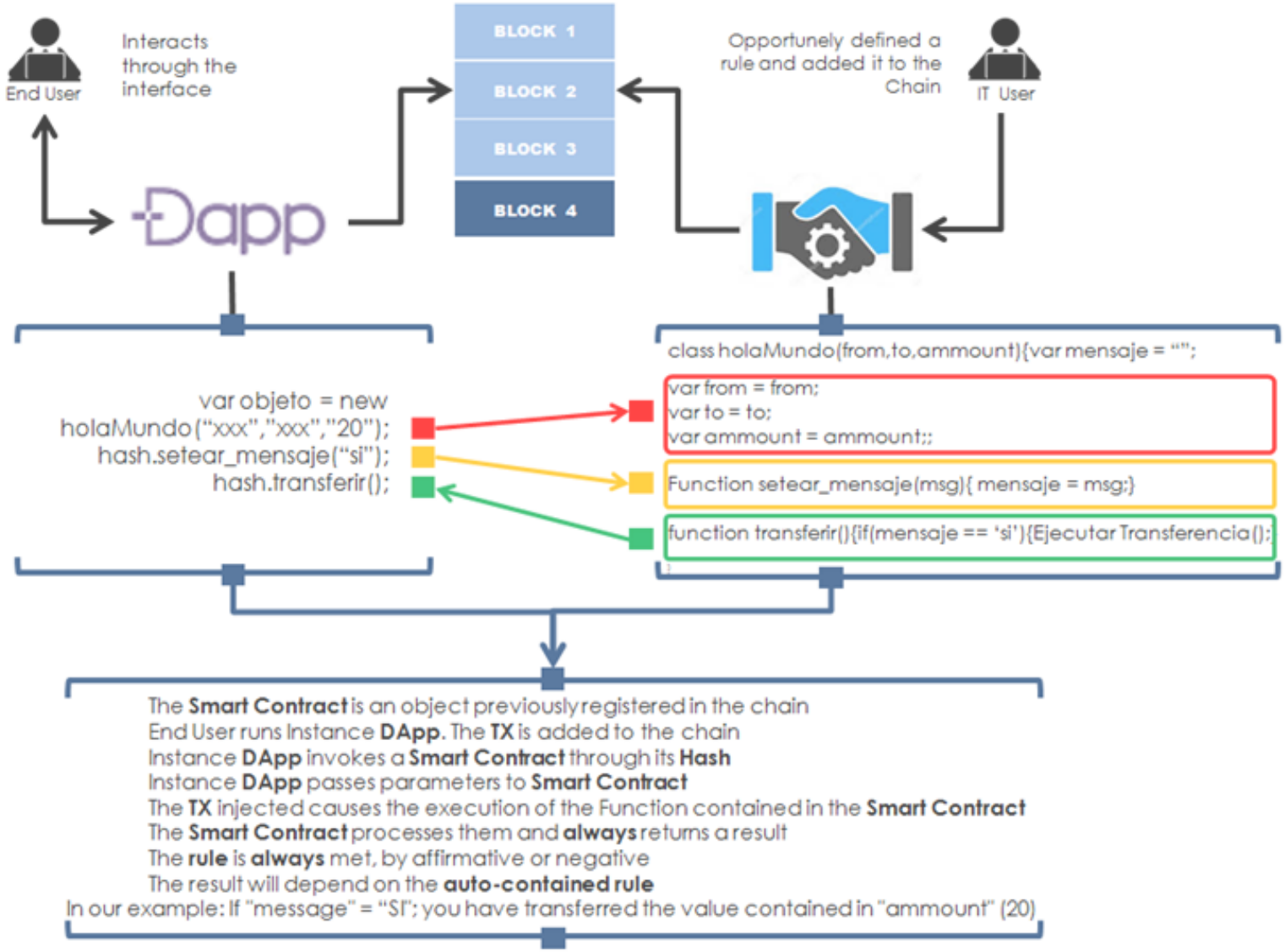
Unlike typical **Apps** that are ***centralized applications*** since the trust is deposited in a main entity -for instance, a server or a data bank- the **DApps** are ***decentralized applications***, where trust is based on the community and are not controlled by any authority and neither require any other intermediary entity for working. ***They just need the chain of blocks to express themselves...***

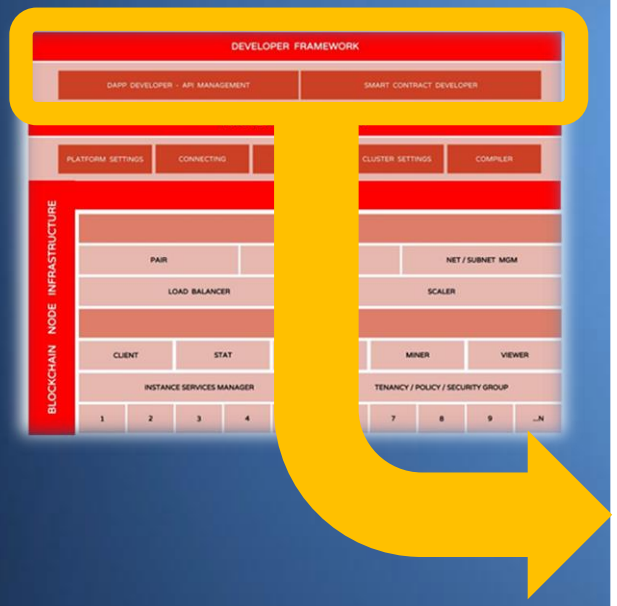
Smart Contracts

These are code capsules programmable, autonomous, self-operative, distributed all nodes, impossible to alter and therefore immutable. It means that it will always have the same behavior without requiring the action of a third party, in a predictable environment, transparent and incorruptible and that ***will be executed automatically when the specific conditions defined in itself are met***.



Execution Model





Industry Standards Compliance

ERC20

There are severals standards, but ERC20 is the dominant protocol that allows to create **tokens** "**above**" a "**BlockChain not own**", for instance: **Ethereum**. The standard among **tokens** that complies to the same specifications is known as **ERC20** and currently represents the most used standard in the industry for the creation of **new tokens**.

The **ERC20 tokens** are collected in **smart contracts** and most of those created to launch **ICOs** on **Ethereum** comply with this standard. In short, a standard between tokens is a set of **functions** collected in a **smart contract** that after compiling generates an **exchange format** be able to being interpreted by different environments, in this case expressed in JSON notation

	ERC20	ERC223	ERC621	ERC721	ERC725	ERC735	ERC777	ERC827	ERC918	ERC948
Identity				◉	◉	◉	▲		▲	
Utility	◉	◉	◉				▲	◉	▲	▲
Assets	◉	◉	◉	◉	◉	◉	▲	◉	▲	▲
Currency	◉	◉	◉				◉	◉	◉	◉
Voting	◉	◉		◉			▲	▲	▲	▲

▲ To Verify ◉ Confirmed

Classification by Token Type, according to standard **ERC (Ethereum Request for Comment)**

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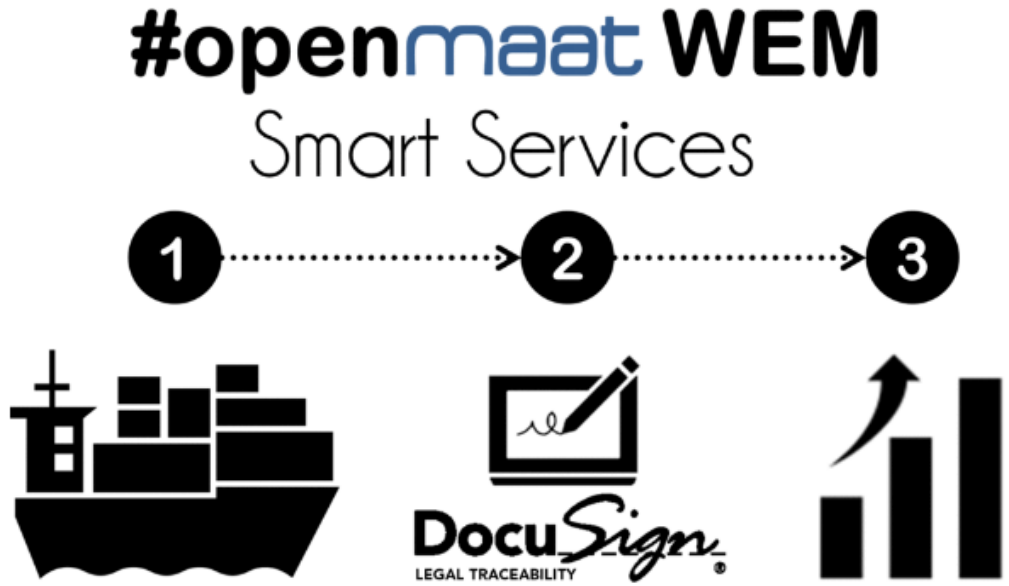
The Global Waste Exchange Marketplace

Technology and Digitization into the waste exchange network via guaranteeing the traceability, broader distribution, reduced operating costs, and the opportunity to update listings on a faster timetable, two problems persisted



Technology and Digitization into the waste exchange network via guaranteeing the **traceability, broader distribution, reduced operating costs**, and the **opportunity to update listings** on a faster timetable, two problems persisted

From **Waste Exchange to Materials Marketplace: #openmaat WEM** facilitates all **Waste ValueChain** participants; to buy and sell; to cooperate and establish new business models; collaborative and innovative "**Circular Economy**" solutions.

#openmaat WEM follows Waste Framework Directive 2008/98/EC

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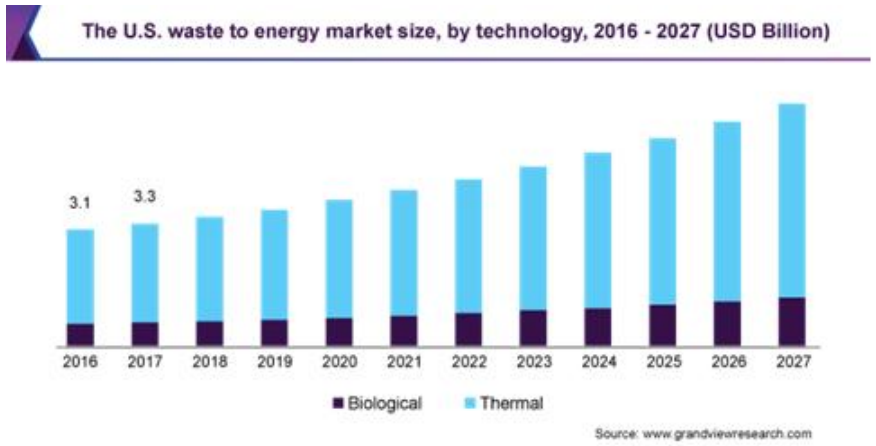
Obtain profit by allowing you to be part of one of the most dynamic and growing markets. Projected global waste management market will reach **2.3 trillion$ in 2027**, based on a **CAGR of 5.5 percent from 2020**. The waste management market is largely dominated by the European and North American market. Waste collection is essential to properly manage waste, but still vary across the world.



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February, 2021