



Supplier governance in the AGILE paradigm

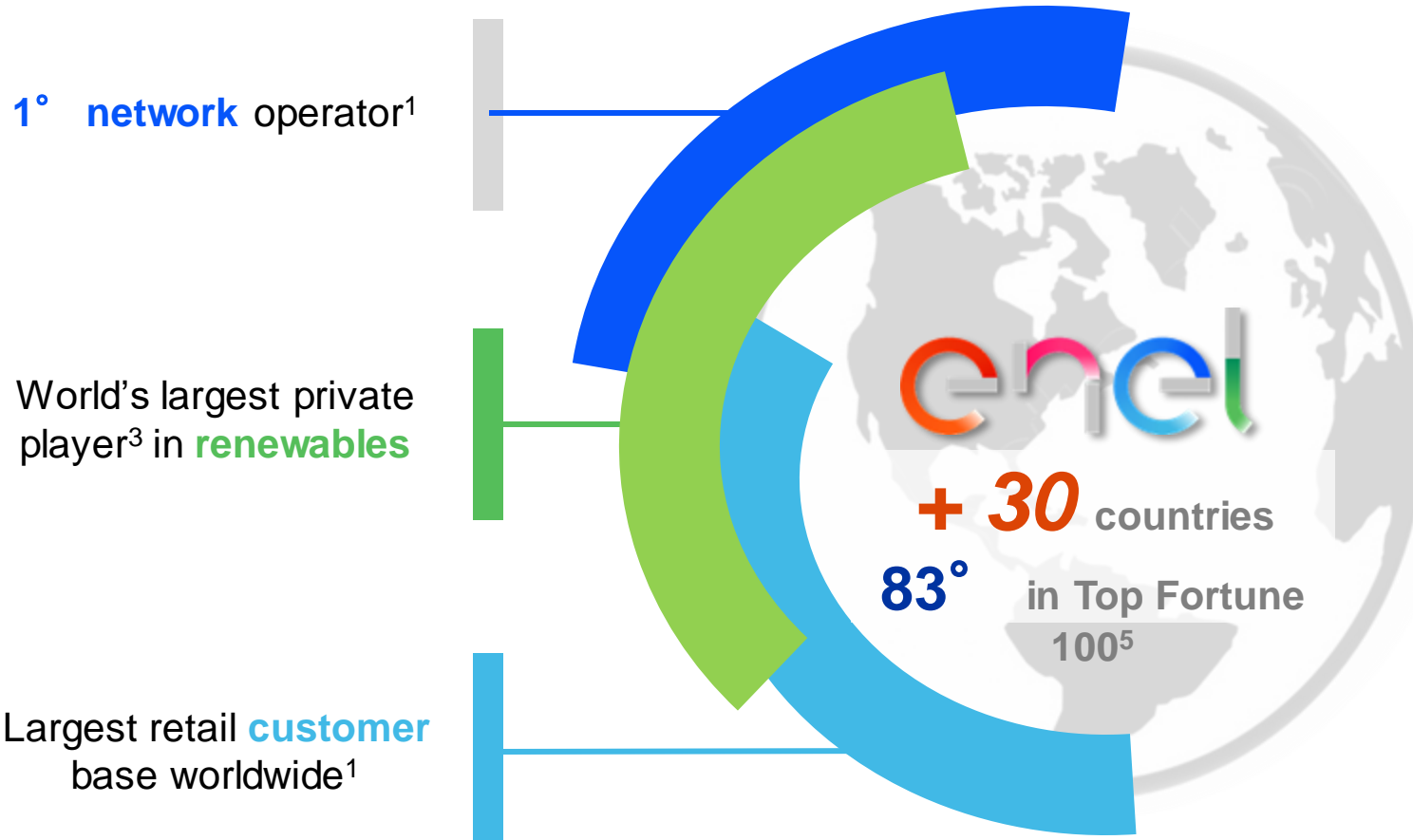
Mario CASODI

Head of GDS-Sourcing, Vendor and Contract Management

Rome, 2019 May 15th



Enel, a leader in the new energy world



Thermal generation

46.4 GW capacity²



Renewables

43 GW capacity³



Distribution

73 mn end users



Retail

> 70 mn customers⁴



Enel X

5.7 GW demand response

1. By number of customers. Publicly owned operators not included
 2. It includes nuclear
 3. By installed capacity. Includes managed capacity for 4.2 GW
 4. Includes customers of free and regulated power and gas markets
 5. Ranking updated to 2018

~70.000 People

~75 € Bn Revenues

Enel today

Enel in the “**TOP-30 Companies that change the world**” 2018 (Fortune)

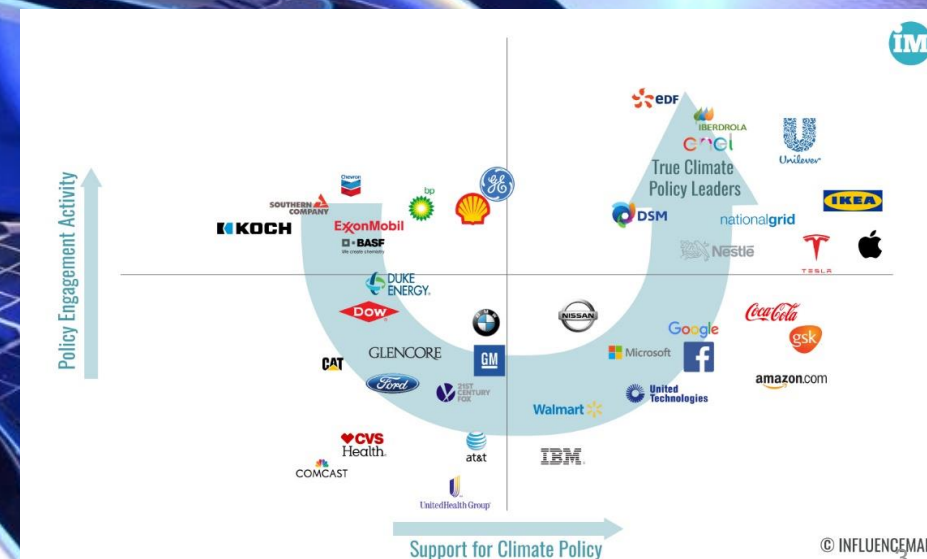
Enel admitted in the **Dow Jones World Sustainability Index** for the 15th consecutive year

Enel in the short list 2017 of “**responsible business award**” (Ethical Corporation)

Enel as #5 company in the world that **fight the climate change** (INFLUENCEMAP)

In 2018 Enel is a finalist for the 2 consecutive year in category in “**The Circulars 2018**”, the contest of the World Economic Forum which awards the most circular institutions, leaders and multinational companies in the world. *(alongside companies such as Apple, Google, Ikea and H&M)*

Francesco Starace was appointed to a second 3-year term on the **Board of Directors of the United Nations Global Compact** (2018-2021) is the only representative to come from the electric utility sector and the only Italian on Board.



How strongly companies support or oppose climate policies and how intensely they lobby on them

Global Digital Solutions

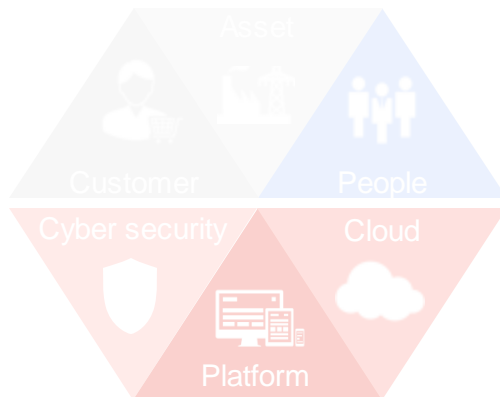
Our mission



«To support our business in its journey to the **full digitalization of the company**, having the focus on execution and achievement of expected results, basing on pillars and enablers»

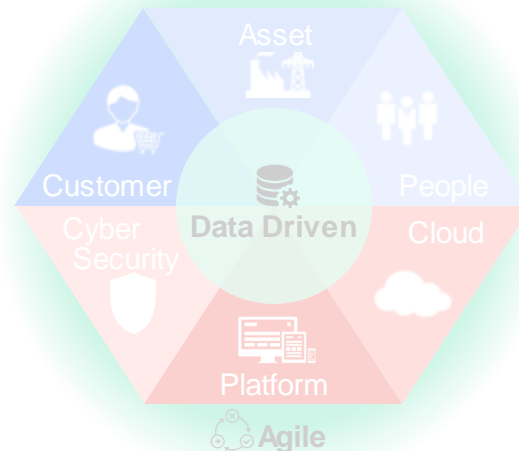
2016 – Pillars & Enablers

Digital strategy development



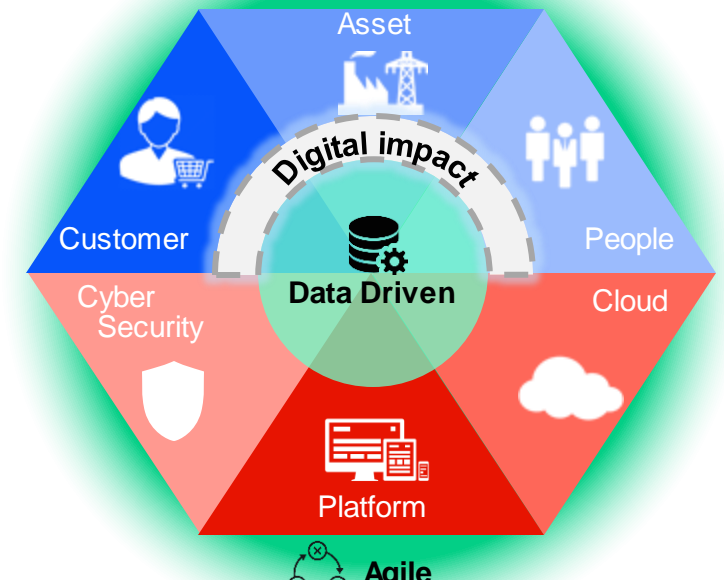
2017 – Agile & Data Driven

Strategy strengthening
with the approaches to **accelerate adoption**;
focus on **enablers**



2018 – Digital Impact

Focus on **execution** and achievement of
digitalization expected results and **value** on **pillars**

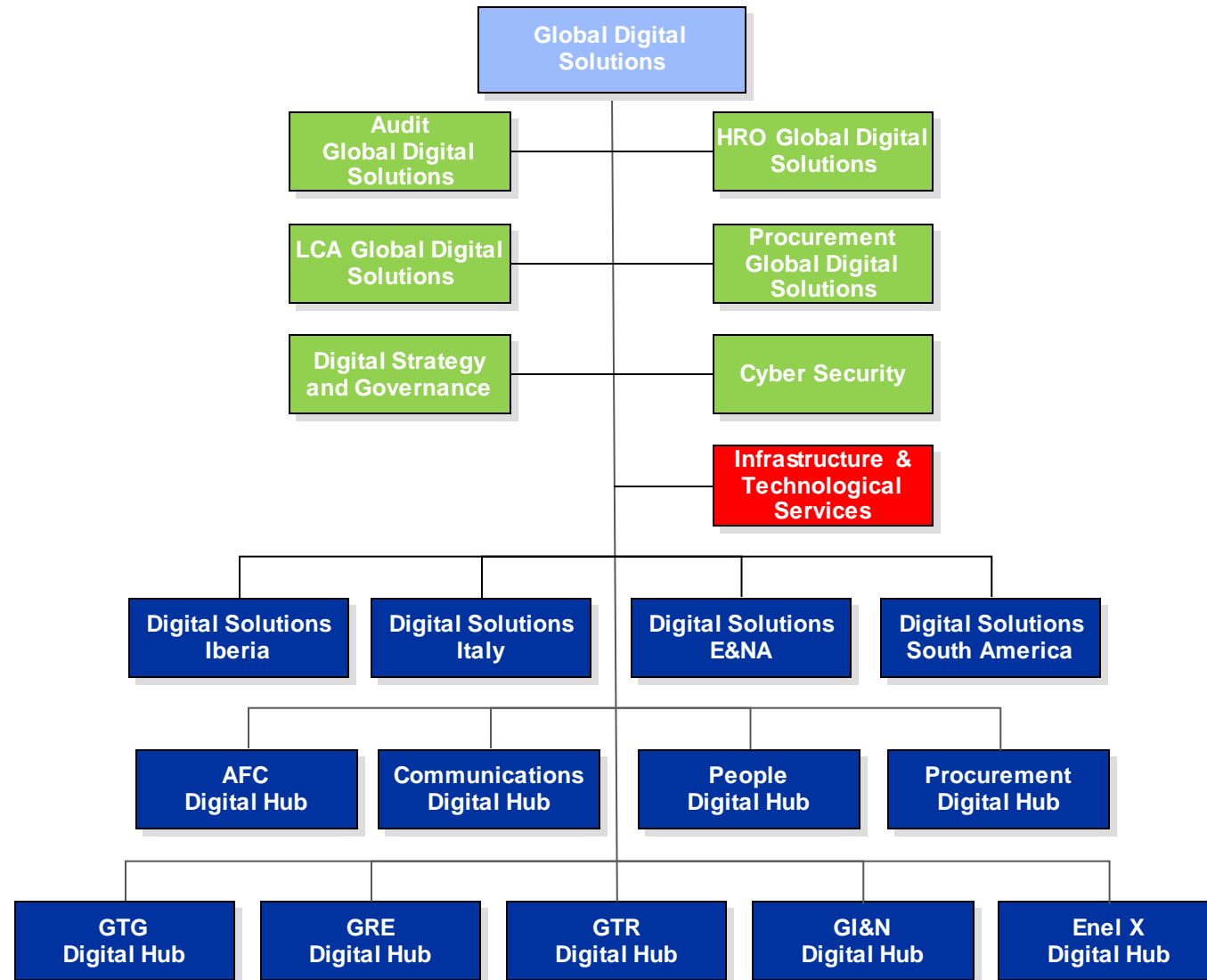


Setup phase

Execution phase

Global Digital Solutions

Organizational chart



STAFF

INFRASTRUCTURES

DIGITAL HUBS

Global Digital Solutions at a glance

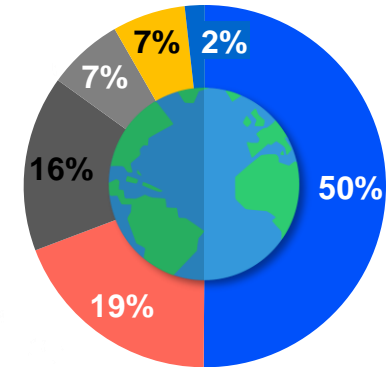
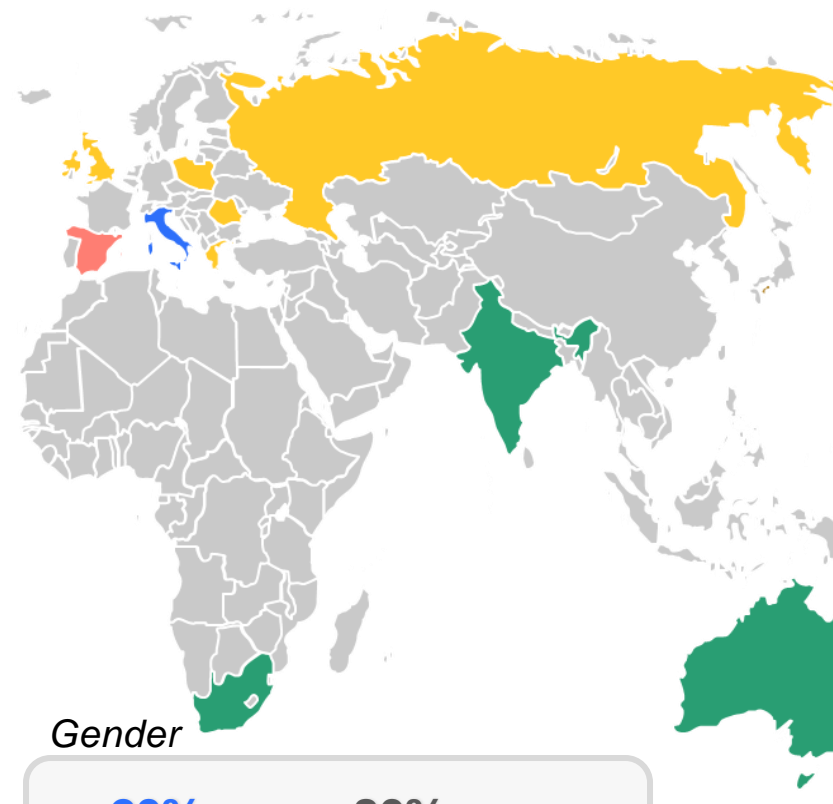


2.471 People

46 Average age

21 Countries

10 Languages



- Italia
- Iberia
- Sud America
- Nord e Centro America
- Resto d'Europa
- Africa, Asia e Oceania

Gender

20%

80%

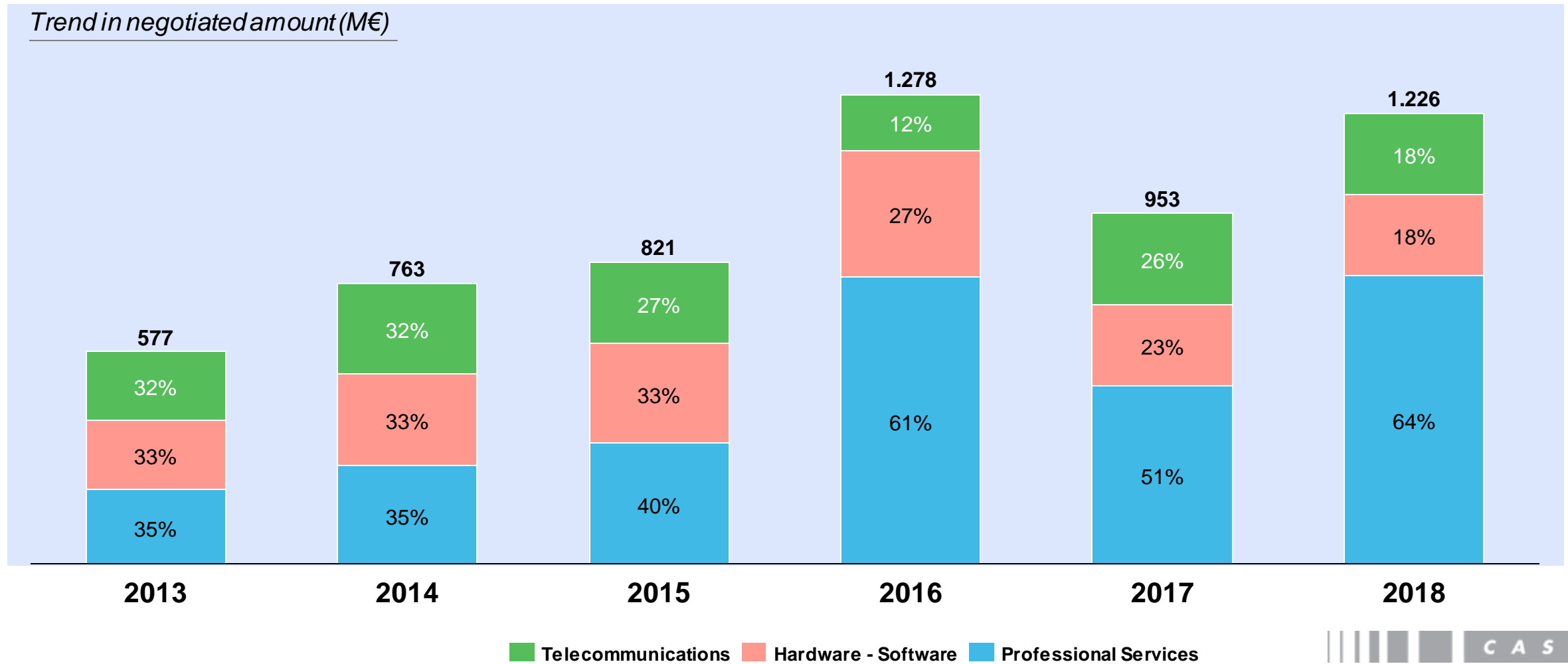


GDS negotiated amount by category

Professional Services, Hardware- Software & Telecommunications overview

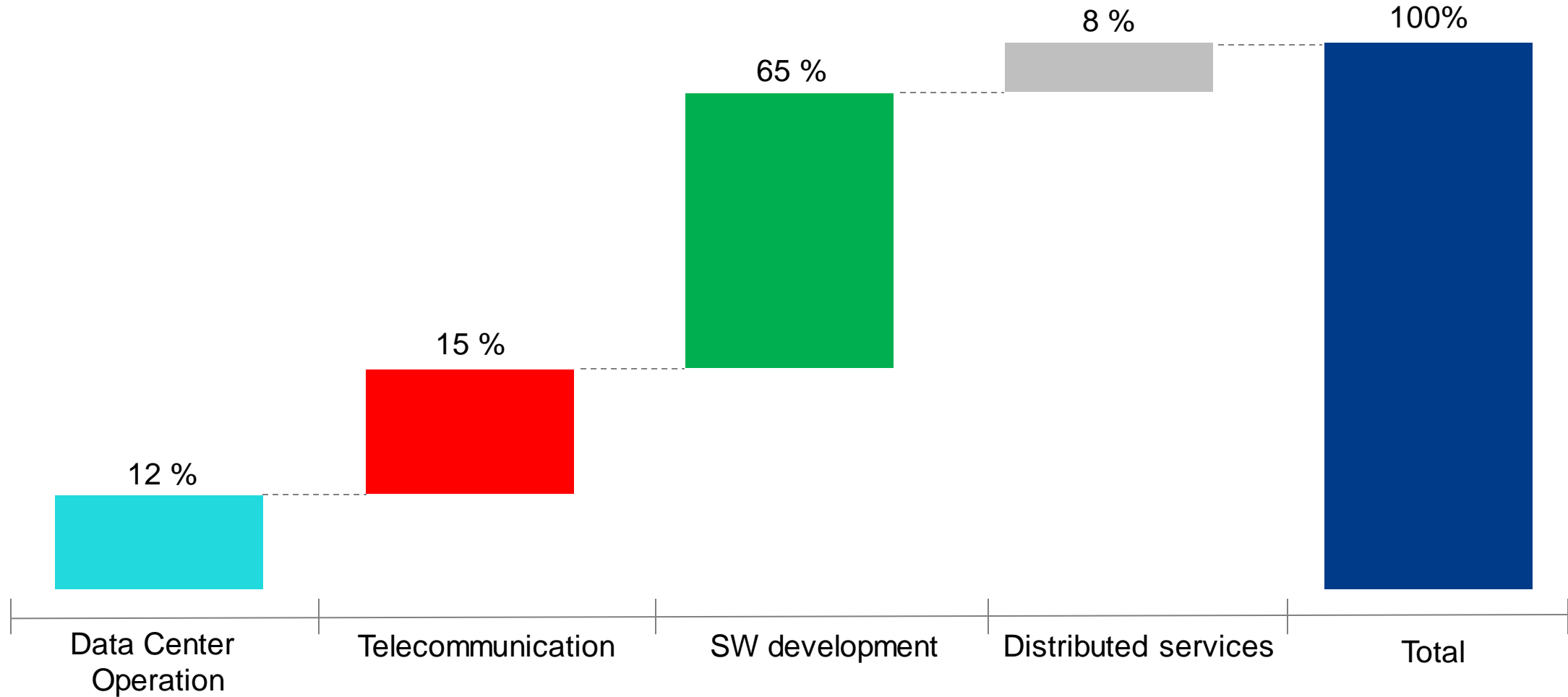


Trend in negotiated amount (M€)



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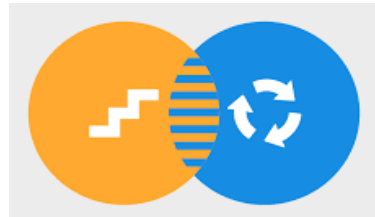
Budget % year 2019



Software development and digital value



Software development is the main item of expenditure in GDS



Evolution of the sw development paradigm from traditional methods to **AGILE methods**



Measurement of VALUE created






Management AGILE's suppliers

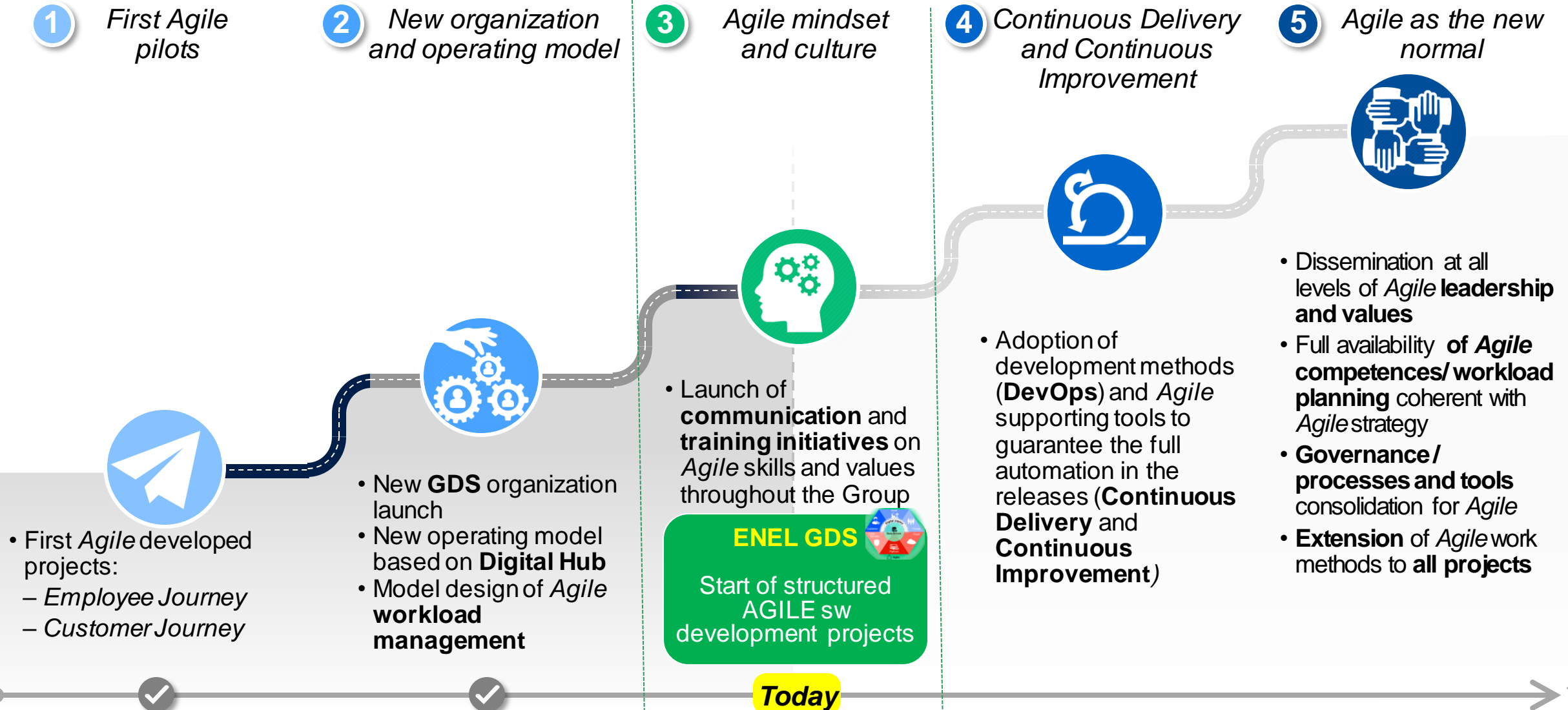
Measurement of value: actual status....



- ENEL GDS has selected Fast Function Points Analysis (FFPA) to calculate the Functional Sizing of sw developments, using the method to manage several stages of ADM lifecycle.
- The use of FFPA is guided by the **Operating Instruction n. 1511** “Functional Sizing for Software Developments” and can be resumed as follows:

	Waterfall	Hybrid Agile (NINA)	“Pure” Agile / Other hybrid
 Preventive Stage	<ul style="list-style-type: none">▪ Estimation: functional sizing is estimated by using FFPA being able to guide the quotation for the initiative:<ul style="list-style-type: none">▪ Total amount (€), transforming FP/CP in effort with Productivity Indexes, and then to cost with Rates in €/person-day▪ Total amount (€), transforming FP/CP directly with Cost by FP/CP		<ul style="list-style-type: none">▪ Estimation: FFPA is not used for effort Estimation neither to guide the quotation for the initiative. <p>Other specific Agile techniques are used</p> 
 Consumptive Stage/ Release	<ul style="list-style-type: none">▪ Measurement: Real FP/CP deployed in production by Release are measured, according to real objects delivered by the Development Team into Production Environment. This allows:<ul style="list-style-type: none">• Fix discrepancies with initial estimations (when applies) with a Compensation Cycle• Calculate system functionality baseline in production• Calculate specific KPI/SLA to improve Vendor Management: Real cost by FP/CP; Real Productivity/ Velocity; Density of errors by Functional Size• The use of Automatic Tools at Consumptive stage is specifically treated at paragraph 8.5 of the Operating Instruction		

Enel path to Scale the Agile Organization «first»



Enel GDS path to Scale the Agile adoption



Agile mindset and culture dissemination



ENGAGEMENT NEEDS OF "AGILE" SUPPLIERS



**DIFFERENT ENGAGING MODES
FROM THE "WATERFALL" ONES**



NEW MODEL OF APPROACH TO SUPPLIERS

AGILE sw development

Create the VALUE: how manage the vendors for achieving it?



STATEMENT :

“ create specific sourcing model and technical specifications for ADM services following Agile practices ”



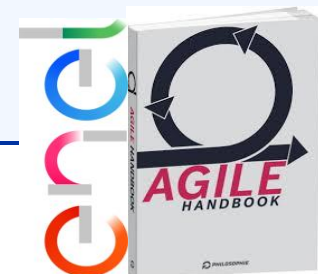
- Create all conditions at contract level to **maximize the value** for the Business in subsequent Agile services
- Optimize Suppliers engagements
- Reduce problems and misunderstanding with Suppliers

HOW ?



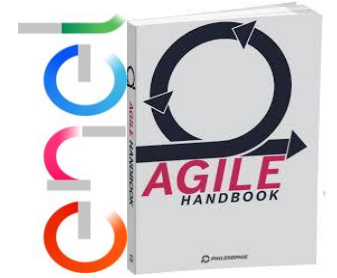
Investigating some key dimensions and drivers of the Agile Software Development practices for:

- providing Enel GDS with a suitable set of tools more adequate to agile instead of using general Waterfall frameworks



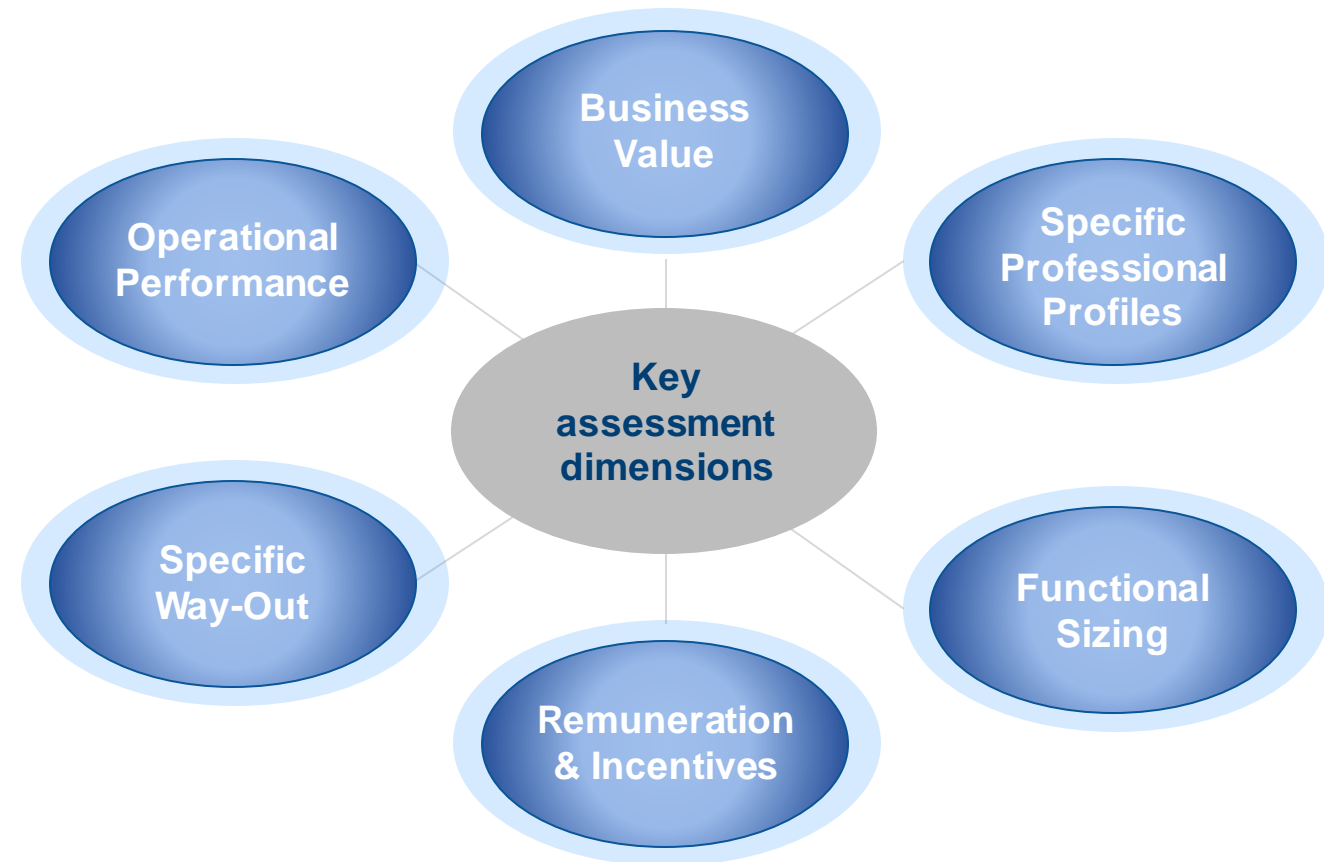
The ENEL Agile Handbook dimensions

Agile sw development general provisions and Sourcing dimensions



Key dimensions

- We have arrived to the **Business Value**: linking the Value to some “**Key Results**” for the Agile Initiative
- **Operational Performance** based on **Software Quality**: comply with Business Expectation also with “high-quality solutions”
- **No SLA, no Penalties as base scenario**: if something goes wrong we apply the specific Way-Out clauses
- **Avoiding pure and unlimited T&M**: remuneration is based in closed tasks approach and in the payment by Sprint/s to balance the risk between Enel GDS and Suppliers. Enel reserves the right of also using an Output-Based payment model based on Functional Sizing
- Definition of **specific Professional Profiles** for the key roles
- Specifying **when the Functional Sizing calculation will be applied**, how and why

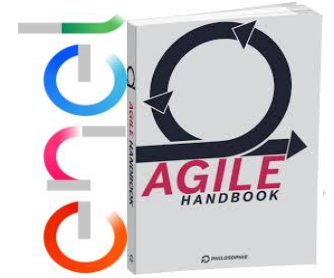


The ENEL Agile Handbook dimensions

Business Value: The Objective and Key Results method

Value is a Driver: in Agile, the Best Driver

- Each Agile Initiative starts with an expected benefit (“the Objective”): according to this it can be measured the **effective Delivered Value**
- The Agile HB considers **key statements** defined with some **Business Referents** in the “**Value Manifesto**” to “measure the Value”, declined with **OKR “Objectives and Key Results”** technique
- Enel GDS reserves the right to apply such scheme** to track the performance of Suppliers linked to Business Value

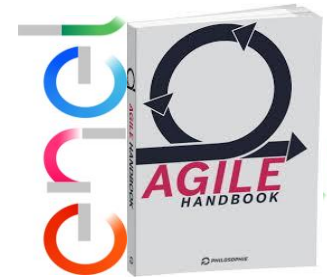
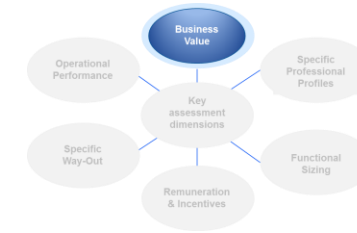


We will (description of the Objective) **being measured by** (set of Key Results)

Agile Initiatives Value could be guided by an “Objectives and Key Results” (OKR) scheme: the Agile Team, so even our Suppliers, is delivering the expected Value if the Business Objectives supported by the initiative are accomplished

The ENEL Agile Handbook dimensions

Business Value: The OKR according to the Value Manifesto



BUSINESS OBJECTIVES (O) DEFINITION

Business specifies the objective that will be supported by the Agile Initiative

The objective is shared in the room by the PO with the Team.

KEY RESULTS (KR) DEFINITION

Key Results to be reached are agreed in terms of specific measurable metrics and success criteria.

KEY RESULTS TRACKING

Periodical check of the KR status: short and medium term checks

Some metrics should be placed at Sprint Level.

KEY RESULTS FINAL EVALUATION

Final evaluation of the KR to check if the initiative has finally supported the Business Expectations and so the expected Business Value.

WIN-WIN INCENTIVES APPLICATION

If WIN-WIN mechanisms included in the Agile HandBook are applied, potential benefits for the Supplier are recognized if the agreed results are reached.

Website attractive for our clients and users!

KR1. Achieve a Net Promoter Score of 30%

KR2. Improve 25% the visits per active user

KR3. Reduce 10% the customer churn rate

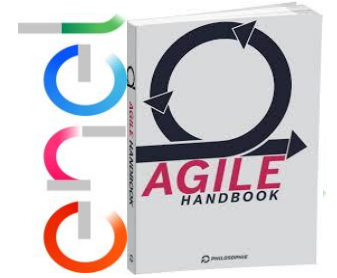
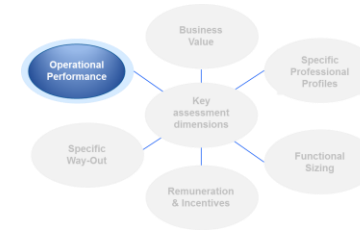
KR4 Minimum score of 8 in the User Experience Satisfaction

✓ Check point at Sprint
✓ Check point at Release

✓ Final agreed checkpoint

The ENEL Agile Handbook dimensions

Operational Performance monitoring according to Operational KPI



Focus on Delivery and Quality

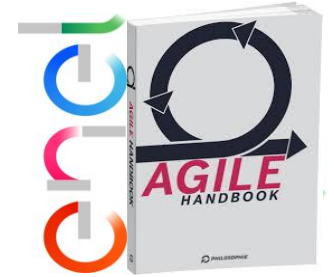
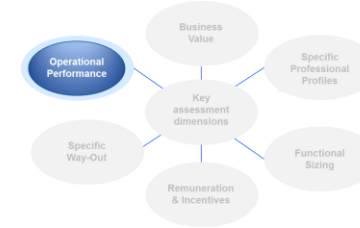
- As stated, the main driver for Agile is “Value”
- But in addition, **6 Operational KPI** have been selected to be tracked as Minimum Set
- **Special focus on Quality**: “OK” the solution cover our expectations, BUT it must be developed maximizing accuracy to avoid subsequent problems. These **Quality KPI could became SLA**
- Other KPI can be integrated according to the approach in the DH: there is a specific **Appendix with additional Operational KPI** that GDS Units can also use
- It is expected the use of **supporting tools**, such as **CAST AIP to guide Quality (*)**
- As stated, if something goes wrong after a certain number of sprints, **we can apply the specific Way-Out clauses**

KPI	Description	Dimension	When
Business Satisfaction Index	Tracked with specific satisfaction questionnaires with a 1-5 score	Quality	<ul style="list-style-type: none"> • Release • Overall
Lead Time	Elapsed time from Idea (User Story definition) to Deploy (User Story deployed in Production as “done”)	Time to Market	<ul style="list-style-type: none"> • Release • Overall
Actual vs. Planned	Percentage of User Stories “done” by Sprint	Time to Market	<ul style="list-style-type: none"> • Sprint • Release • Overall
Positive Test Cases Index	Percentage of positive test cases for the User Stories	Quality	<ul style="list-style-type: none"> • Sprint • Release • Overall
Total Quality Index	Total Quality Index variations of the application linked to the agile initiative: tracked with CAST	Quality	<ul style="list-style-type: none"> • Release • Overall
Critical Violations per Function Point	Number of critical violations identified in the SW by Automated Function Point measured: tracked with CAST	Quality	<ul style="list-style-type: none"> • Sprint • Release • Overall

(*): **TQI** is the summary indicator used in in this early stage of this approach adoption. When we will have a significant number of applications tracked, other KPI will be considered for the quality dimension.

The ENEL Agile Handbook dimensions

Operational Performance monitoring according to Operational KPI



As we have detected several tracking needs according to diverse interlocutors, there is flexibility in the integration of specific DH Operational KPI: they are proposed...

Delivered Value on Value Points (DV)

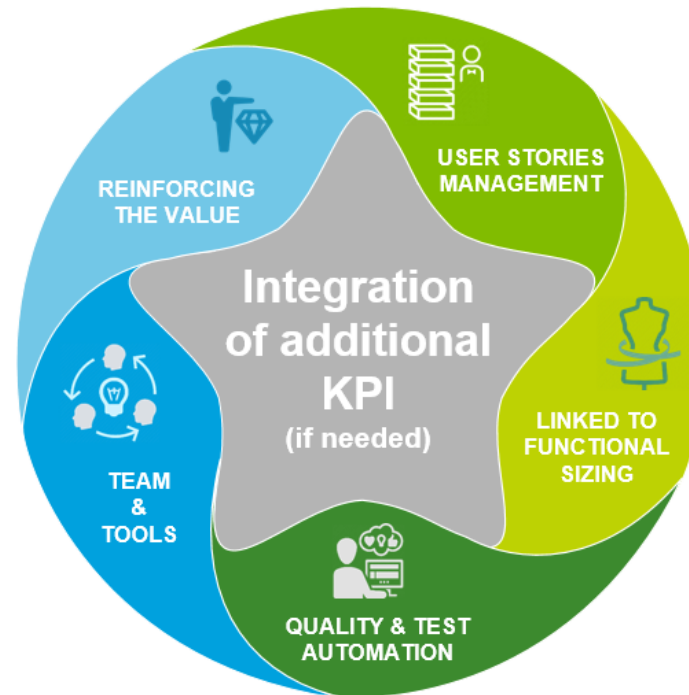
Return of the Agile Initiative (AR)

Team Members Assignment (TA)

Team Satisfaction (TS)

Team Focus Factor (FF)

Tools Usage Level (TU)



Development Team Velocity (TV)

Planned vs. Unplanned tasks (PU)

Development Team Velocity
(Functional View)

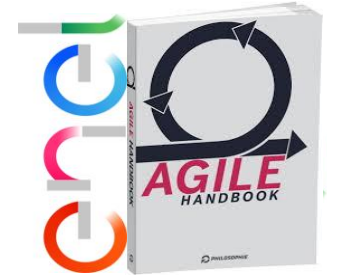
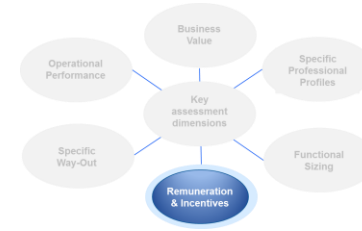
Development Team Productivity
(Functional View)

Density of Errors (DE)

Testing Automation Level (AL)

The ENEL Agile Handbook dimensions

Supplier remuneration and incentives



Remuneration is based on payment by Sprint, avoiding unlimited Time & Materials
(Enel reserves the right of using an Output-Based approach based on Functional Sizing)

- Remuneration should be re-conducted to these methods: traditional unlimited **T&M puts all the risk on Enel side**
- The Agile HB leaves **flexibility to apply WIN-WIN models**, where Enel and the Supplier share the risk, also **special incentive mechanisms**

WIN-WIN models

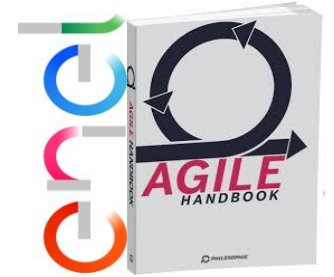
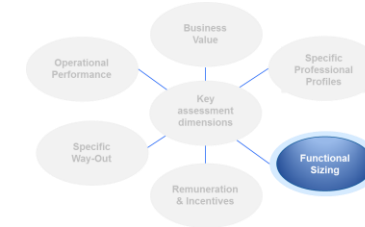
- If OKR and/or Operational KPI are **accomplished**:
 - Bonus
 - Credit to compensate penalties in other services
- If OKR and/or Operational KPI are **not accomplished**:
 - A certain part of Supplier remuneration “under risk” is not get by the Supplier (a specific % on the overall remuneration for the initiative)

Incentive mechanism

- If **Minimum Viable Product** is achieved with a number of **sprints lower than the planned** ones, Enel GDS could pay **a part of the remuneration corresponding to the Sprints not executed**
- Supplier has the **incentive for closing earlier and properly the MVP** to get a kind of “Money for nothing” reward

The ENEL Agile Handbook dimensions

Functional Sizing: a bimodal approach



“Pure” Agile

Measurement methods: FFPA/ CAST AIP

Measurement period: Consumptive (Release)



Main goals

- Having an **objective sizing** of the product
- Update the **baseline** of functionalities in Production
- Calculate **specific KPIs** linked to the Functional Sizing
- Possibly integrate results into **Vendor Rating Model**
- Potential use as metric for an **Output-Based remuneration**
- Potential Maintenance & Support **fee update**, if applicable



“Hybrid” Agile

Measurement methods: FFPA/ CAST AIP

Measurement period: Preventive / Consumptive (Release)



Main goals

- Same **as in “Pure Agile”**
- To activate a **Compensation Process**: comparing real number of Function Points and Configuration Points released in Production with estimations done at Preventive Stage, recovering any potential deviation if the two sizing are misaligned.

Functional sizing will follow a different approach according to methodology used (“Pure” Agile vs “Hybrid”) and will be supported by CAST AIP tool. It is supposed that “Hybrid” initiatives will have a good Functional Requirement for executing the sizing

Suppliers management in AGILE paradigm

NEXT STEPS



ENEL AGILE Handbook as a “tool” to manage the relationship with the suppliers

New AGILE paradigm mindset and disseminations

The ENEL AGILE Handbook is a «live» object !!!

we have begun a journey on a new experience....
... on our skin we will mature the improvements!

Thank you