Spago4Q Platform
Spago4Q is the open source analytic ensuring software development quality and performance improvement. Released as 100% open source software, it provides specific extractors to collect data and measures from various data sources (e.g. projects, code repositories) through non-invasive techniques, and provides a comprehensive set of analytical tools (such as reports, dashboards, OLAP and KPI) for instant insights on quality and performance levels.

Productivity Intelligence
Spago4Q uses Business Intelligence techniques to monitor and improve productivity of companies and organizations according to a multi-dimensional model. Spago4Q implements the PMAI approach and the QEST 3D model to collect performance values on three dimensions of analysis: Economic, Social and Technical. In this process, it combines quantitative data (e.g. costs) and qualitative data (e.g. users’ level of satisfaction).

By implementing effective and agile business strategies, Spago4Q allows companies and organizations to improve quality practices and achieve higher capability levels.
> Full integration of enterprise requirements with quality standards
> Enhancement of software development performances and maturity
> Full support to project quality, agility and cost-effectiveness.
Architecture
The ETL procedures extract data from the infrastructure tools and load them into the DWH-Spago4Q data warehouse module, based on a meta-model definition. Data are analyzed by Spago4Q analytical components, which cover the whole range of BI (Business Intelligence) requirements, in terms of analysis and data management, administration and security.

All Spago4Q components can be managed through the Configuration & Administration module, which provides connection to repositories and tools, and manages user access control lists, KPI models, KPI algorithms and threshold values.

Spago4Q modular architecture and meta-model design ensure extensibility towards further infrastructure tools, sets of models, KPIs or metrics.

Spago4Q Metamodel
Spago4Q meta-model, which follows the Meta-Object Facility approach, contains the Process, Measurement and Assessment meta-models. Following GQM principles, it defines three main entities:

> Measureable Concept: the goal of the analysis
> Measureable Attributes: the attributes to be measured to evaluate a specific goal
> KPIs and metrics: operations to be applied on measured attributes.

By means of the meta-model, users can represent specific development processes or services, Quality models or assessment frameworks (CMMI, ISO 9001:2000, ISO9126, ITIL, QualiPSo OMM) as well as KPIs and metrics related to Quality models for the assessment of products, processes and services.

SpagoBI Suite
Spago4Q is the analytic of SpagoBI suite (www.spagobi.org) - the 100% open source Business Intelligence suite, supporting the development of innovative and flexible solutions. SpagoBI suite includes not only usual reporting and charting tools, but also unique and innovative solutions addressing emerging analytical domains, such as self-service BI, location intelligence, real-time, mobile, Big Data and Open Data, data mining, what-if analytics and in-memory technology. Conceived and realized by Engineering Group’s SpagoBI Labs, it is part of the software stack managed by OW2 Consortium (www.ow2.org).