

## ASTER – Manufacturing Renaissance Area – Maker focus



The ongoing fourth industrial revolution, constituted by digital manufacturing, new frontiers of ICT and a set of dynamics and instruments deriving from the encounter of new technologies, internet and creativity, will leverage on the wide horizon formed by new potentials of a “new manufacturing”, increasingly specialized and focused on evolved pool of competencies.

The introduction of ever more pervasive digital technology has brought companies that have managed to survive the market changes and those that are being born to rethink their business models, also looking at distributed and collaborative R&D strategies. On the other hand, the new generation of digital artisans, the makers, should be part of this new emerging ecosystem, taking advantage of many opportunities opening up with the development of new digital manufacturing.

Makers are becoming more and more interesting also as stakeholders who can develop a new idea of job and employment and a new perspective towards education and training.

That’s why ASTER is approaching this new “world” considering the whole regional ecosystem, made by public institutions, companies, schools and research centers. As a consequence of this choice, ASTER decided to support regional makers in order to foster the birth of a regional network on digital fabrication: [Mak-ER](#). It is the first Italian regional network with these characteristics; it is promoted by Make in Italy Association, coordinated by [FabLab Reggio Emilia](#) and [MakeInBo](#) and operates thanks to the support of ASTER. Mak-ER aims to systematize the best energies and aspirations that are emerging within Emilia-Romagna region, combining the organizational flexibility of individual members together with a critical mass able to making them identifiable, believable towards the production environment and able to participate in large-scale strategic projects.

ASTER decided to support **the digital manufacturing network of Emilia-Romagna**, primarily because of these issues:

- ASTER is starting an International and European Alliance on Manufacturing Renaissance. Technical education and the so called fourth industrial revolution are strictly linked to the new roles and ways of digital manufacturing. This network could represent one of the viable ways to **overcome the economic and social crisis**.
- The use of the **TECHNOLOGY** is in the ASTER DNA and it is facing new perspectives on that: a shared use of the technology, open to the community. Within production and training systems there is a **shift from**

**knowledge to know-how**, to know how to do things. The network could be a place where to learn how to do things and how to teach them.

- **INNOVATION**. ASTER is focused on innovation but not only in its narrow sense. “Open Innovation” means not only technological but also social innovation. ASTER would like to explore through these entities and future Mak-ER activities new ways to innovate applied to products, process and organization. Mak-ER is being naturally established within the region by different entities that, starting from the use of new digital technologies, could provide an alternative hypothesis to the traditional ways of production and organization of work.

Thanks to ASTER support, in 2014 Mak-ER was invited as first regional network of makers at **R2B - International Exhibition on Industrial Research and Innovation; World Maker Faire in New York, European Maker Faire in Rome, Smart City Exhibition**; in 2015 it was invited at **3DPrint Hub 2015**.

Additionally, on March 18th the Emilia-Romagna region has joined the European Regional Vanguard Initiative (VI), aimed to promote the cooperation in a new value chain vision of several industrial organization in VI associated 26 regions .

Among the initial Pilot actions promoted by VI, the so called 3D printing pilot was brought by ASTER to highlight the interest of the Maker association in 3 specific areas , Automotive, Complex mechanical parts, Health.

The assumption of the pilot is, that after a mapping and connecting phases, an interesting and involving demo plant action may bring SME and bigger player to an effective, cooperative growth of the 3D printing technology.

ASTER is supporting Mak-ER to create a **pool of experts**, that is helping the network to grow go further; to start **experimentations** on new projects, most of all with technical education institutions (i.e. [ITS Maker](#)); to connect, as an enabler, different entities within the same territory or city, in order to make them working together; to act as a **facilitator** among single entities and local public administrations.