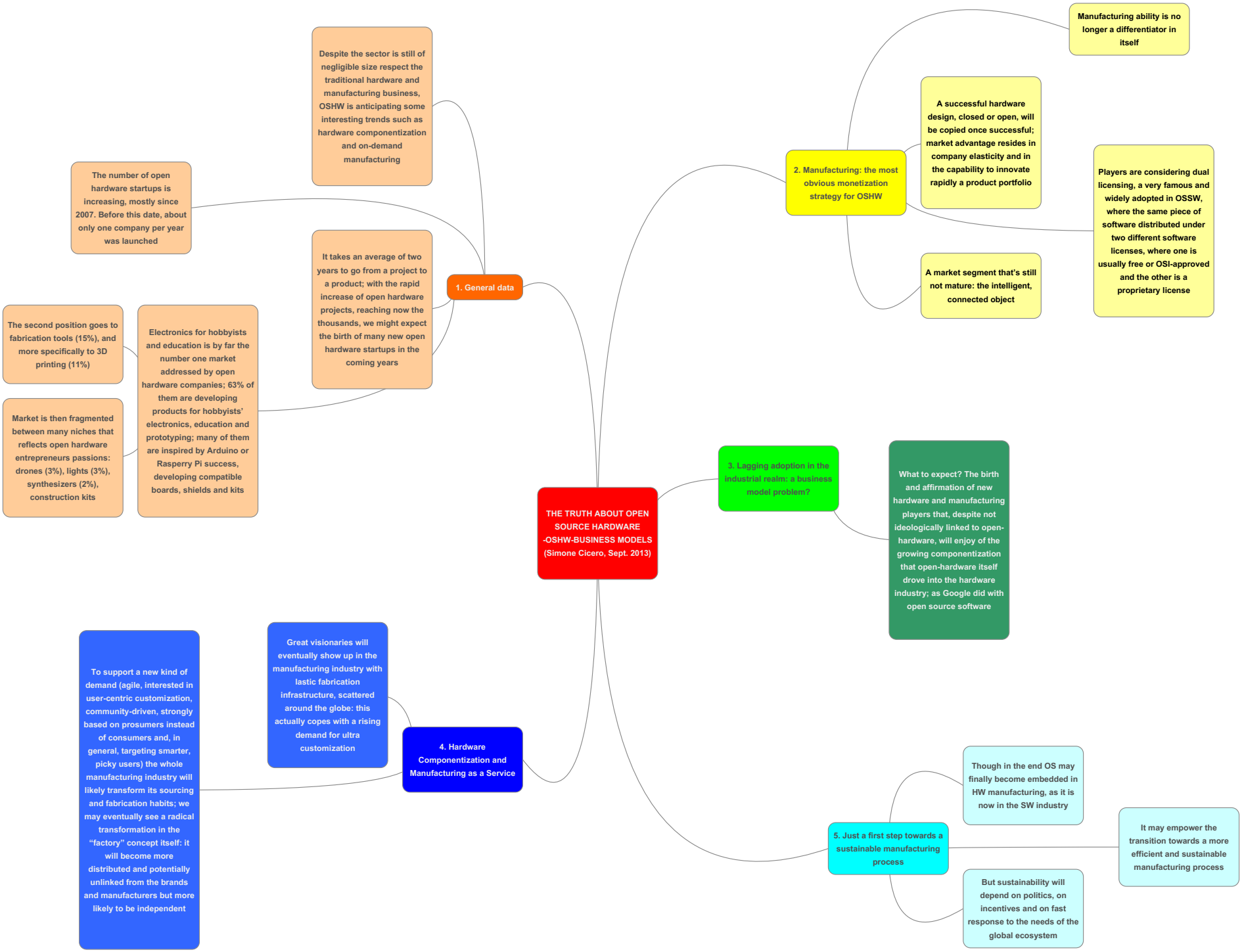
THE TRUTH ABOUT OPEN SOURCE HARDWARE -OSHW-BUSINESS MODELS (Simone Cicero, Sept. 2013)
1. General data
Despite the sector is still of negligible size respect the traditional hardware and manufacturing business, OSHW is anticipating some interesting trends such as hardware componentization and on-demand manufacturing
The number of open hardware startups is increasing, mostly since 2007. Before this date, about only one company per year was launched
It takes an average of two years to go from a project to a product; with the rapid increase of open hardware projects, reaching now the thousands, we might expect the birth of many new open hardware startups in the coming years
Electronics for hobbyists and education is by far the number one market addressed by open hardware companies; 63% of them are developing products for hobbyists' electronics, education and prototyping; many of them are inspired by Arduino or Rasperry Pi success, developing compatible boards, shields and kits
The second position goes to fabrication tools (15%), and more specifically to 3D printing (11%)
Market is then fragmented between many niches that reflects open hardware entrepreneurs passions: drones (3%), lights (3%), synthesizers (2%), construction kits
2. Manufacturing: the most obvious monetization strategy for OSHW
Manufacturing ability is no longer a differentiator in itself
A successful hardware design, closed or open, will be copied once successful; market advantage resides in company elasticity and in the capability to innovate rapidly a product portfolio
Players are considering dual licensing, a very famous and widely adopted in OSSW, where the same piece of software distributed under two different software licenses, where one is usually free or OSI-approved and the other is a proprietary license
A market segment that's still not mature: the intelligent, connected object
3. Lagging adoption in the industrial realm: a business model problem?
What to expect? The birth and affirmation of new hardware and manufacturing players that, despite not ideologically linked to open-hardware, will enjoy of the growing componentization that open-hardware itself drove into the hardware industry; as Google did with open source software
4. Hardware Componentization and Manufacturing as a Service
Great visionaries will eventually show up in the manufacturing industry with lastic fabrication infrastructure, scattered around the globe: this actually copes with a rising demand for ultra customization
To support a new kind of demand (agile, interested in user-centric customization, community-driven, strongly based on prosumers instead of consumers and, in general, targeting smarter, picky users) the whole manufacturing industry will likely transform its sourcing and fabrication habits; we may eventually see a radical transformation in the "factory" concept itself: it will become more distributed and potentially unlinked from the brands and manufacturers but more likely to be independent
5. Just a first step towards a sustainable manufacturing process
Though in the end OS may finally become embedded in HW manufacturing, as it is now in the SW industry
It may empower the transition towards a more efficient and sustainable manufacturing process
But sustainability will depend on politics, on incentives and on fast response to the needs of the global ecosystem