

Innovation: making it happen in Italy



Marco Bicocchi Pichi | Trento | 15 December 2016



The Stone Age did not end for the lack of stones, but because humanity decided to take a different direction and adopt new habits.



Italia start^{up}

CHANGE

FOR INDIVIDUALS, SOCIETY, STATES, BUSINESS ADAPTING TO INCREASINGLY RAPID CHANGE IS AN IMPERATIVE TO SURVIVE

CHALLENGE

ADAPTING TO CHANGE IS NOT ENOUGH TO WIN THE COMPETITIVE CHALLENGE REQUIRES MORE THAN SIMPLE ADAPTATION





The OECD Oslo Manual for measuring innovation defines four types of **innovation**

PRODUCT INNOVATION: A **good or service** that is new or significantly improved. This includes significant improvements in technical specifications, components and materials, **software in the product**, user friendliness or other functional characteristics.

PROCESS INNOVATION: A new or significantly improved **production or delivery method**. This includes significant changes in techniques, equipment and/or **software**.

MARKETING INNOVATION: A new **marketing method** involving significant changes in product design or packaging, product placement, product promotion or pricing.

ORGANISATIONAL INNOVATION: A new **organizational method** in business practices, workplace organization or external relations.









What's happening in the world ?



DIGITALIZATION AND GLOBALIZATION

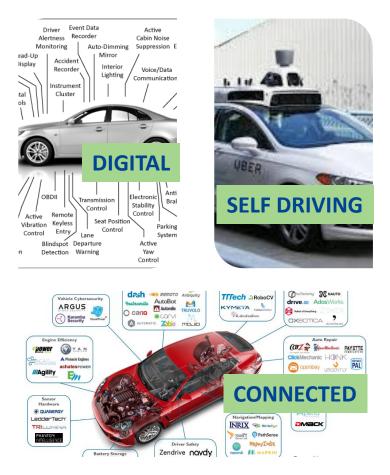
- The **DIGITALIZATION and GLOBALIZATION** of the economy has :
- ✓ ERODED NATIONAL SOVEREIGNTY,
- ✓ **RESHAPED CONCEPTIONS** of **MATERIALITY** and **PLACE**, and
- ✓ FACILITATED NEW CIRCULATIONS of CULTURE, CAPITAL, COMMODITIES, and PEOPLE.



«SOFTWARE IS EATING THE WORLD»

The **car industry** is the «queen of industries» discussing mass manufactured complex products. The **«Machine that changed the world**» a book first published in 1990 discussed the future of the automobile introducing the concept of «lean production».

Now is **innovation**, *not continuous improvement*, *o*n the agenda.





DEMATERIALIZATION | 1/2

Dematerialization occurs when digital content becomes disengaged from its carrier and flows freely through networks and devices, while the <u>carrier</u> <u>disappears</u>.







DEMATERIALIZATION | 2/2

Together with these information carriers, a whole range of accompanying products is disappearing as well. For *music* this includes CD-box and booklet, as well as storage and **display** products, like racks, shelves, cases. For money, products like wallets, purses, safedeposit boxes and cash registers.







THE KEY DRIVER OF CHANGE

DIGITIZATION & DEMATERIALIZATION OF PRODUCTS AND PROCESSES



PRODUCT LIFE CYCLE ACCELERATION

NEED FOR CONTINUOUS INNOVATION





Italy (still) a G7 country: the roots

Italy is (still) a G7 country: 8th world largest economy by GDP (*with negative future outlook*)

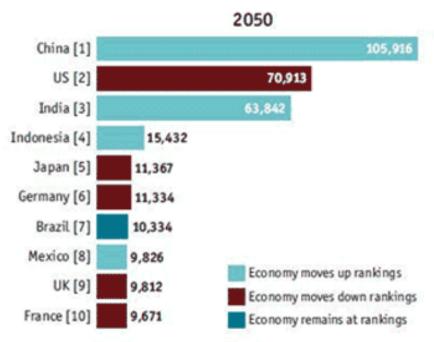


(US\$ bn) 2014 US[1] 17,419 China [2] 10,335 Japan [3] 4,606 Germany [4] 3,865 UK[5] 2,951 France [6] 2,835 Brazil [7] 2,346 Italy [8] 2,149 India [9] 2,055 Russia [10] 1,861

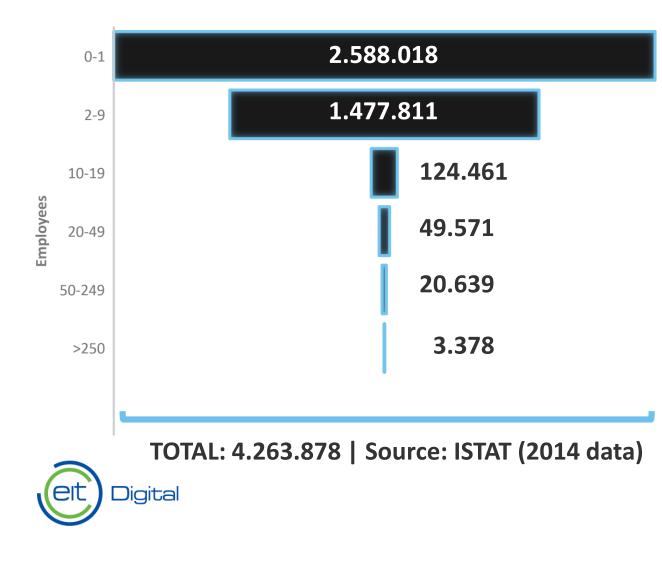
Source: The Economist Intelligence Unit.



Nominal GDP



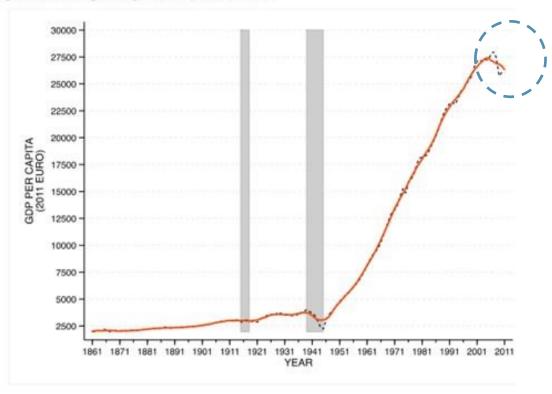
The Italian companies structure by employees class shows an entrepreneurial system of micro and small





Post WW2 the Italian economy has been growing constantly up to the recent crisis

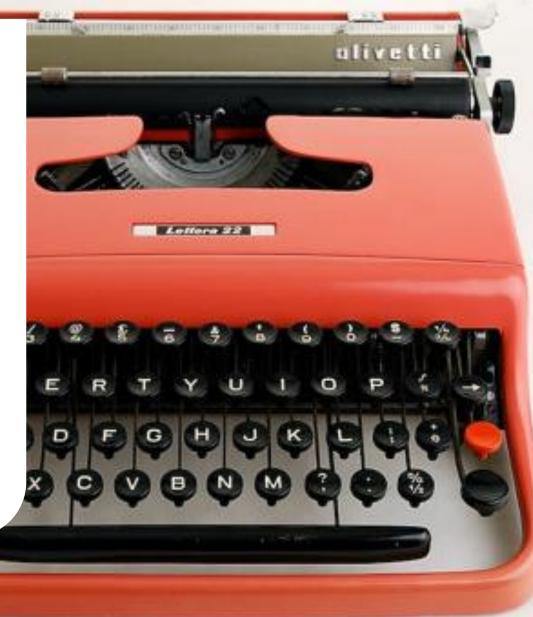
Figure 1. GDP per capita, Italy 1861-2011



Notes: 2011 euros, present borders. Sources: Brunetti, Felice and Vecchi, "Income."

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1950 : the year of the iconic **Olivetti Lettera** 22 best design product of the century according to Illinois Institute of Technology. Sold until **1965** (15 years)



The A1 highway: in 8 years from 1956 to 1964 Italy built 755 km of road with 113 bridges and 38 tunnels, at world record speed of 94 km/year.

1. 2 5 6 4 5 5



The Fiat «new» 500 launched
on the 4th of July 1957
introduced product and
process innovation. The car
was sold until 1975 (18 years)

1966 : with nearly 5 Million units of domestic appliances produced for domestic and export markets Italy was third in the world by volume after USA and Japan Exhibition at New York's MoMA in **1972**, "**Italy: The New Domestic Landscape**", Combining 180 **design** objects with 11 environmental situations

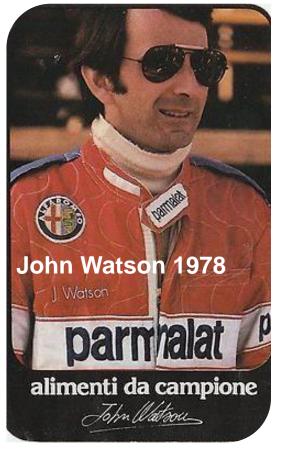
Product: Le Bambole («The Dolls») Designer : Mario Bellini Producer: B&B



Parmalat: milk from a commodity product to a brand "milk (*later food*) for champions"

Parmalat innovation in the 70's: a) **Process Ultra High T**emperature, b) **Packaging** Tetra Pack, c) Marketing with sport sponsorships to transform a commodity in a brand







«Alimenti da Campione | Food for Champions»

1970s in Montebelluna (TV) development of the sky boots district with the "full plastic" boot product and process innovation with the brands TECNICA and NORDICA



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Olivetti M20 personal computer launched 1982 (proprietary OS) was designed in Cupertino (California, USA). Followed by the Olivetti M24 (IBM Compatible) launched in 1983 with international success

In **1985** the Harvard Business School presented the first case on **Benetton** the Italian apparel company that had greatly innovated: the process (dyeing, automated warehouse, branded store) and marketing communication (Oliviero Toscani's campaigns)

OF BENETTON.

1990s fashion top models: Gianni
Versace friend of Eric Clapton, Princess
Diana, Naomi Campbell, Madonna,
Elton John, Cher, Sting first designer to
link fashion to the music world
(marketing communication).

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GEOX

ERPROOF | BREATHABLE

Founded in **1995** Geox "breaths" shoes are based on over 30 patented **innovations** in chemistry, physics, orthopaedics, foot ergonomics applied to **product and process**



Made in Italy is more, not only the 3F's of fashion, furniture and food

Italy is among other world leader in **major infrastructures**,

manufactured goods, machinery,

pharmaceutical-biomedical

products automotive and aerospace

technologies.

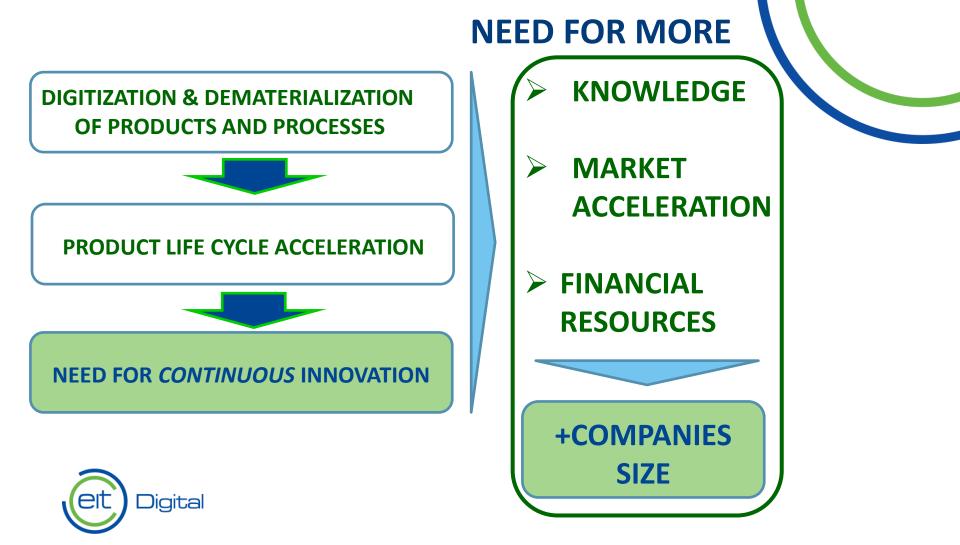


- ITALY IS A WORLD LEADER IN THE CREATION OF MAJOR INFRASTRUCTURES 1000 CONSTRUCTION SITES IN 90 COUNTRIES
- □ THE ITALIAN AUTOMOTIVE SECTOR NUMBERS 3200 COMPANIES, MORE THAN 1.2 MILLION EMPLOYEES AND SOME OF THE BEST BRANDS IN THE WORLD
- ITALY IS EUROPE'S SECOND LARGETS EXPORTER 100 BILLION EURO'S WORTH OF MACHINERY AND CAPITAL GOODS
- ITALY IS THE UNDISPUTED LEADER IN THE PRODUCTION OF SUPER YACHTS WITH 40% OF WORLD ORDERS
- ITALY IS HOME TO LEADING AEROSPACE TECHNOLOGIES. IT WAS THE THIRD COUNTRY IN THE WORLD TO SEND A SATELLITE INTO ORBIT
- □ ITALY HAS THE WORLD'S 5th LARGEST SURPLUS IN **MANUFACTURED GOODS.**



Italy: the need to change

THE ITALIAN SYSTEM IS TODAY GREATLY CHALLEGED

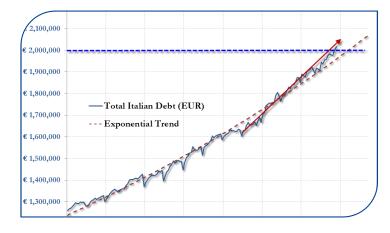


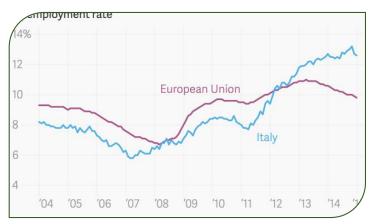
Italian Economic Key Challenges

HIGH PUBLIC DEBT: Italy has one of the highest pro-capita and % to GDP Public Debts in the world. In absolute terms the Italian Public Debt is the Trillion US \$ range.

HIGH UNEMPLOYMENT RATE: Italy

has an higher than average unemployment rate with very high peaks in youth and south Italy









WE DO HAVE EXCELLENT DESIGN & MANUFACTURING, ...

- Italy is a **WORLD LEADING MANUFACTURING** country.
- Italy is a **LEADING DESIGN AND FASHION** country.
- Italy is an **ENTREPRENEURIAL** country.

...BUT..

• Italy is *only partially* an **advanced technology** country.



... **ISSUES** ARE ON THE AGENDA FOR ITALY

PRODUCTIVITY : "Productivity in Italy is stagnating because the system has not yet adapted sufficiently to the new **TECHNOLOGIES**, **or to GLOBALIZATION."**

EDUCATION : "The **GAP** between the Italian **EDUCATION SYSTEM** and global best practices could depress the rate of GDP growth by as much as one percentage point in the long run".

WOMEN PARTICIPATION : "Women's LOW LABOR MARKET PARTICIPATION is a crucial weakness of the Italian economy".



Mario Draghi (2011) Speech for 150th Italian State Anniversary





The **low Italian investments rate** in % of GDP is a strong single critical factor (16,7% VS. 20,12% G7)

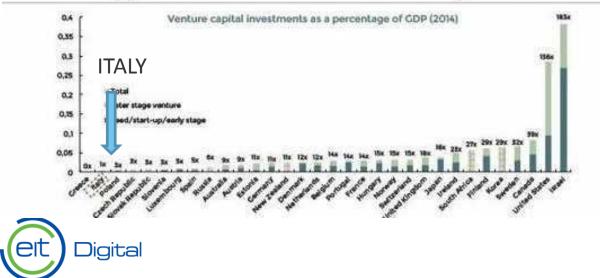
1.75

Indicator: Investment (% of GDP) | Year: 2015 Data Source: International Monetary Fund (IMF)



Italy shows **among the lowest venture capital investments** in absolute terms and in % relative to GDP



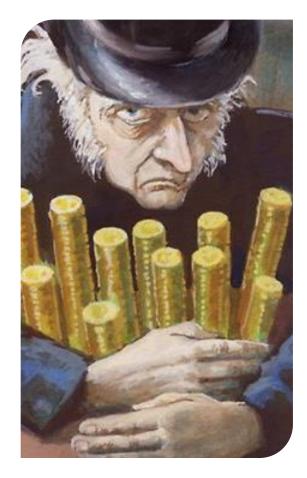


Italians **HNWI** have a preference for **real** estate and to invest outside Italy

In 2014, real estate was the largest asset class for Italian HNWIs, with 25.6% of total HNWI assets, followed by equities with 17.8%, fixed-income with 16.3%, cash and deposits with 15.7%, business interests with 14.3% and alternatives with 10.3%.

Italian HNWIs held **38.2%** (US\$424.0 billion) of their wealth **outside their home country**, at the end of 2014; **significantly higher than the worldwide average of 20-30%.**

Source: WealthInsight, Italy Wealth Report 2015







The old generation of Italian leading entrepreneurs is passing away The generation of entrepreneurs that lived the Italian growth of the sixties is coming to the end of life.

- Enzo Ferrari (1898-1988)
- Gianni Agnelli, Fiat (1921-2003)
- Leopoldo Pirelli; Pirelli (1925-2007)
- Peppino Fumagalli, Candy (1928-2015)
- Michele Ferrero, Ferrero (1925-2015)
- Giannantonio Brugola, Brugola (1942-**2015**)
- Vittorio Merloni, Ariston (1933-**2016**)

There is a strong need to nurture a new generation of international entrepreneurs







Domestic appliances or white goods exemplify Italy's recent industrial decline.

In 2007, Italy, once a world leader* in the sector, produced 24 million appliances. By 2012, it was down to 13 million; output of washing machines, dishwashers, refrigerators and cookers was down by 52 per cent, 59 per cent, 55 per cent and 75 per cent.

***PS**: in 1966 with **5 Million** appliances produced Italy was 3rd in the world.







The Italian economic crisis will not end without a cultural change

Italy Industrial Production 1991-2016 | Data | Chart | Calendar

Industrial Production in Italy increased 1.80 percent in September of 2016 over the same month in the previous year. Industrial Production in Italy averaged -0.15 percent from 1991 until 2016, reaching an all time high of 17.50 percent in August of 1994 and a record low of -25.90 percent in April of 2009.



SOURCE: WWW.TRADINGECONOMICS.COM | NATIONAL INSTITUTE OF STATISTICS (ISTAT)





Italy: the startup opportunity



«MAKE INNOVATIVE COMPANIES GROW, AND MAKE LARGE COMPANIES INNOVATIVE»



26TH MAY 2012 – OPEN DAY ITALIA STARTUP

On May 26th the Italian Minister of Economic Development listened to the #startup ecosystem community and a great effort of policy making started to help making Italy a "startup friendly" country. The effort has continued in the last four years from one government to the other together with the growth of the ecosystem.





RESTART ITALIA

The «Startup compact» is now a reality in Italy: visit the Ministry of Economic Development web site for updated information (In Italian is more complete)





Celt Digital

ITALIAN PUBLIC REGISTER OF INNOVATIVE STARTUPS



Contacts

We are talking about companies that innovate





http://startup.registroimprese.it/index_en.html

6.673 INNOVATIVE STARTUPS ARE IN THE REGISTER DECEMBER 2016





FASHION: ON LINE BESPOKE MEN SUITS & MORE





STYLE IS AN ITALIAN JOL

La nuova collezione Autunno/Inverno 2016

SCOPRI



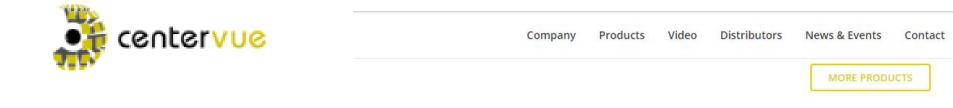
AEROSPACE: D-ORBIT IS A FIRST-MOVER IN THE MARKET OF DECOMMISSIONING DEVICES







MEDICAL DEVICES: HIGH-TECH DIAGNOSTIC SYSTEMS FOR SIGHT-THREATENING PATHOLOGIES





Eidon

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SOFTWARE: DATA CENTERS SOLUTION FOR HIGHER EFFICENCY AND SIGNIFICANT ENERGY SAVINGS.



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INDUSTRY 4.0 : INDUSTRIAL INTERNET OF THINGS TECHNOLOGY & SOLUTIONS



FORRESTER[®]

Reference vendor for IoT Gateways and IoT Platforms (Forrester TechRadar Internet of Things 02.2016)

«A very relevant Industry 4.0 Company in Italy» (Frost & Sullivan Industrial IoT Analyst, 10.2015) FROST ヴ SULLIVAN



Digital

«One of the most forceful potential distruptors» (Hot Tech Innovators – 02.2015)

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AEROSPACE



LAND



DRILLING



CFN-50A - Inertial Navigation System



CFN-50L FOG Land Navigator



CFA-100M



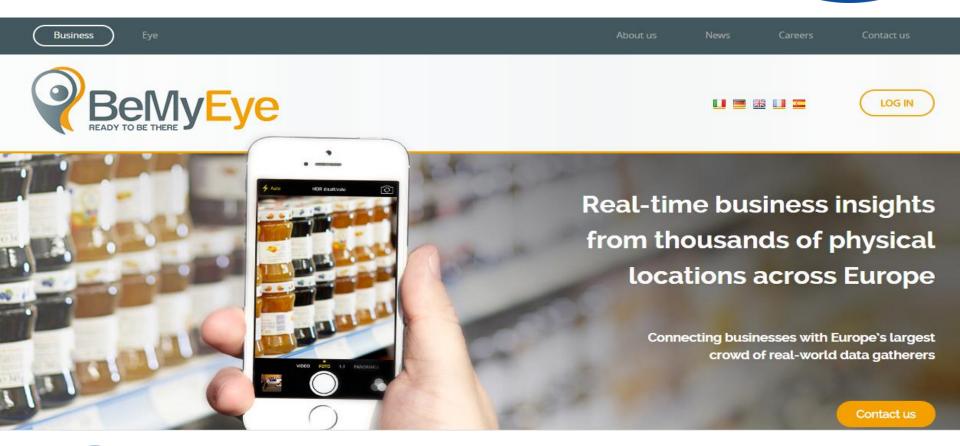
VISION : "TO BECOME A **WORLDWIDE** SUPPLIER OF INERTIAL NAVIGATION, GEO-REFERENCE AND STABILIZATION SOLUTIONS PROVIDER, FOR COMMERCIAL AND DUAL USE APPLICATIONS"

FOOD: 24-MONTH AGED PARMIGIANO REGGIANO BAKED CHIPS WITH OLIVE OIL





MARKETING EXECUTION CONTROL SOLUTION: CROWDSOURCING SOLUTION (process innovation)





VIDEO CREATIVE AGENCY: COLLABORATION PLATFORM FOR CREATORS AND BRANDS

S CPVPLUS

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₩ Mosaicoon



WeBlog Open Summit

Ecco le 100 startup migliori del 2015 secondo noi

Sono le 100 startup che a nostro avviso (e delle decine di investitori e stakeholder sentiti in queste settimane) meritano di essere ricordate. Eccole



14 dicembre 2015





edazione



CONCLUSIONS

THE OPPORTUNITY IS HERE

 A dramatic growth of startup entrepreneurial initiatives and ecosystem development happened in Italy in the last few years;

 Innovation is flourishing in all industry sectors of Italian excellence, creativity and competencies were not lost in the dark years;

 Competitiveness of Italian innovators has started to receive international recognition, prizes awarded and investments are starting to come;



INVESTORS AND ESTABLISHED ENTREPRENEURS CALL FOR ACTION

 Private investments from business angels and venture capital are still dramatically low, it is time for UHNWI and HNWI as well as institutional investors to act and invest in Italy. Very recent Government important increase in incentives package for investors is a strong call to action;

•Old and established entrepreneurs should respect and support more the new entrepreneurs starting, not trying to exploit them;



STARTUP ENTREPRENEURS CALL FOR ACTION

• Startup entrepreneurs in Italy need to scale up culturally and take more their community destiny in their own hands. Join and participate to Italia Startup work and help creating a truly vibrant community;

 Recognize that individualism, parochialism, lack of marketing and commercial vision, insufficient ambition and ability to attract international talents, arrogance are the worst enemies to grow the start-ups;





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Thanks for your attention!