



Winter School, 2017

Dario Talarico – Market Access Director

February 24th, 2017- Ferrara





- ✓ Riforme Istituzionali
- ✓ Ricerca e Innovazione
- ✓ Fabbisogno Assistenziale
- ✓ Legittimazione Sistemi Locali

Differente Combinazione

di

Processi Manageriali



**Modello
Tradizionale**



**Modello
Innovativo**



**Modello
Evoluto**



RICERCA E INNOVAZIONE



The top 50 companies in 2016 Scoreboard: Rank change 2004-2016

Rank in 2016	Company	Country	R&D in 2015 (€bn)	R&D intensity (%)	Rank change 2004-2016
1	VOLKSWAGEN	Germany	13.6	6.4	up 7
2	SAMSUNG ELECTRONICS	South Korea	12.5	8.0	up 31
3	INTEL	US	11.1	21.9	up 11
4	ALPHABET	US	11.1	16.0	up > 200
5	MICROSOFT	US	11.0	14.1	up 8
6	NOVARTIS	Switzerland	9.0	19.4	up 14
7	ROCHE	Switzerland	8.6	19.4	up 11
8	HUAWEI	China	8.4	15.0	up > 200
9	JOHNSON & JOHNSON	US	8.3	12.9	up 3
10	TOYOTA MOTOR	Japan	8.0	3.7	down 5
11	APPLE	US	7.4	3.5	up 93
12	PFIZER	US	7.0	15.7	down 10
13	GENERAL MOTORS	US	6.9	4.9	down 7
14	DAIMLER	Germany	6.5	4.4	down 11
15	MERCK US	US	6.4	17.7	up 14
16	FORD MOTOR	US	6.2	4.5	down 15
17	CISCO SYSTEMS	US	5.7	12.6	up 13
18	HONDA MOTOR	Japan	5.5	4.9	down 7
19	ORACLE	US	5.3	15.6	up 27
20	BRISTOL-MYERS SQUIBB	US	5.3	34.8	up 22
21	SANOFI	France	5.2	15.2	down 5
22	ASTRAZENECA	UK	5.2	23.0	up 3
23	ROBERT BOSCH	Germany	5.2	7.4	up 5
24	BMW	Germany	5.2	5.6	up 5
25	QUALCOMM	US	5.0	21.7	up 67
26	SIEMENS	Germany	4.8	6.4	down 21
27	IBM	US	4.5	6.0	down 17
28	BAYER	Germany	4.4	9.4	up 32
29	FACEBOOK	US	4.4	26.9	up > 200
30	GLAXOSMITHKLINE	UK	4.2	12.9	down 19
31	FIAT CHRYSLER	Italy	4.1	3.7	new
32	NISSAN MOTOR	Japan	4.1	4.4	up 2
33	ABBVIE	US	3.9	18.6	new
34	GENERAL ELECTRIC	US	3.9	3.6	up 3
35	ERICSSON	Sweden	3.8	14.2	down 18
36	ELI LILLY	US	3.7	20.0	up 5
37	AMGEN	US	3.6	18.2	unchanged
38	AIRBUS	The Netherlands	3.6	5.6	down 3
39	SONY	Japan	3.6	5.8	down 24
40	PANASONIC	Japan	3.4	6.0	down 33
41	CELGENE	US	3.4	39.9	up > 200
42	HP	US	3.2	3.4	down 19
43	DENSO	Japan	3.0	8.8	down 8
44	BOEHRINGER SOHN	Germany	3.0	20.3	up 18
45	BOEING	US	2.8	3.2	up 12
46	GILEAD SCIENCES	US	2.8	9.2	up 320
47	TOSHIBA	Japan	2.8	6.4	
48	LG ELECTRONICS	South Korea	2.7	6.1	up 62
49	SAP	Germany	2.7	12.9	up 21
50	TAKEDA PHARMA	Japan	2.6	19.1	up 23



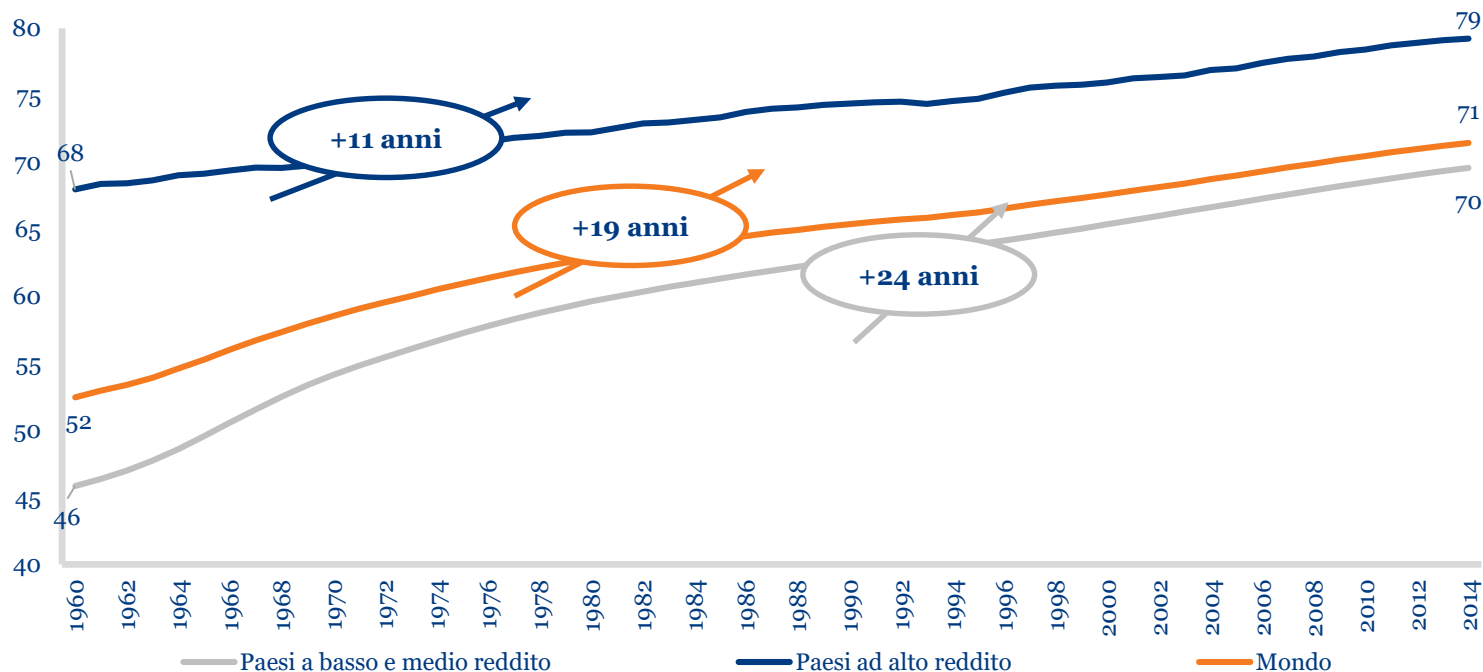
Ranking of large companies by R&D intensity

Rank by R&D int.	Rank by R&D 2015	Company	Sector	R&D int.2015 (%)	Rank change	Reasons for big changes (up or down 5 places or more)
1	41	CELGENE	Biotech	39.9	0	
2	20	BRISTOL-MYERS SQUIBB	Pharma	34.8	3	
3	29	FACEBOOK	Internet	26.9	4	
4	111	NVIDIA	IT hardware	26.6	-2	
5	131	ELECTRONIC ARTS	Software	25.2	NEW	Sales down > R&D up
6	124	YAHOO!	Internet	24.3	-2	
7	97	MEDiatek	IT hardware	23.2	5	Sales level, R&D up
8	22	ASTRAZENECA	Pharma	23.0	8	R&D up 12.3%, sales -6.9%
9	3	INTEL	IT hardware	21.9	2	
10	25	QUALCOMM	IT hardware	21.7	-1	
11	81	DAIICHI SANKYO	Pharma	21.2	-2	
12	44	BOEHRINGER SOHN	Pharma	20.3	2	
13	36	ELI LILLY	Pharma	20.0	0	
14	6	NOVARTIS	Pharma	19.4	9	Sales -15%, R&D-9.5% (GSK deal)
15	7	ROCHE	Pharma	19.4	2	
16	50	TAKEDA PHARMA	Pharma	19.1	-10	R&D -9.5%, sales +5.1%
17	68	BIOGEN IDEC	Biotech	18.7	-2	
18	33	ABBVIE	Pharma	18.6	7	R&D up more than sales
19	54	NOKIA	IT hardware	18.4	-1	
20	37	AMGEN	Biotech	18.2	-12	R&D down, sales up
21	119	STMICROELECTRONICS	IT hardware	18.1	0	
22	60	ALLERGAN	Pharma	15.0	NEW	Merger Actavis & Allergan
23	15	MERCK US	Pharma	17.7	-3	
24	57	ALCATEL-LUCENT	IT hardware	16.9	1	controlled by Nokia since 01/2016
25	129	ASML HOLDING	IT hardware	16.6	-6	
26	74	ASTELLAS PHARMA	Pharma	16.4	-2	
27	4	ALPHABET	IT services	16.0	2	
28	12	PFIZER	Pharma	15.7	-6	
29	19	ORACLE	Software	15.6	2	
30	92	BAIDU	Internet	15.4	NEW	R&D +46.2%, sales +35.3%
31	21	SANOFI	Pharma	15.2	3	R&D up more than sales
32	103	APPLIED MATERIALS	IT hardware	15.0	-4	R&D up 1.6% but sales up 6.5%
33	8	HUAWEI	IT hardware	15.0	3	
34	35	ERICSSON	IT hardware	14.2	-7	R&D down, sales up
35	5	MICROSOFT	Software	14.1	5	R&D level, sales down 8.8%
36	85	OTSUKA	Pharma	13.9	-1	
37	64	ZTE	IT hardware	13.8	4	R&D +34.1%, sales up 23%
38	76	MERCK DE	Pharma	13.3	-8	R&D level, sales up
39	30	GLAXOSMITHKLINE	Pharma	12.9	-2	
40	49	SAP	Software	12.9	-1	
41	9	JOHNSON & JOHNSON	Pharma	12.9	3	R&D +6.5%, sales -5.75%
42	17	CISCO SYSTEMS	IT hardware	12.6	-1	
43	86	WESTERN DIGITAL	IT hardware	12.5	2	
44	72	NOVO NORDISK	Pharma	12.0	-13	R&D level, sales up 21.5%
45	121	SEAGATE TECHNOLOGY	IT hardware	11.1	NEW	Sales fell more than R&D
46	55	EMC	IT hardware	10.7	-15	
47	98	FINMECCANICA	Aerospace	10.6	2	
48	91	MONSANTO	Chemicals	10.5	-2	
49	84	SK HYNIX	IT hardware	10.5	NEW	R&D +23.8%, sales +9.8%
50	107	SYNGENTA	Chemicals	10.2	NEW	Sales down more than R&D

Source: The 2016 EU Industrial R&D Investment Scoreboard, European Commission, JRC/DG RTD.

PROGRESSO E RICERCA CLINICA

Aspettativa di vita alla nascita nel mondo
(anni), 1960-2014



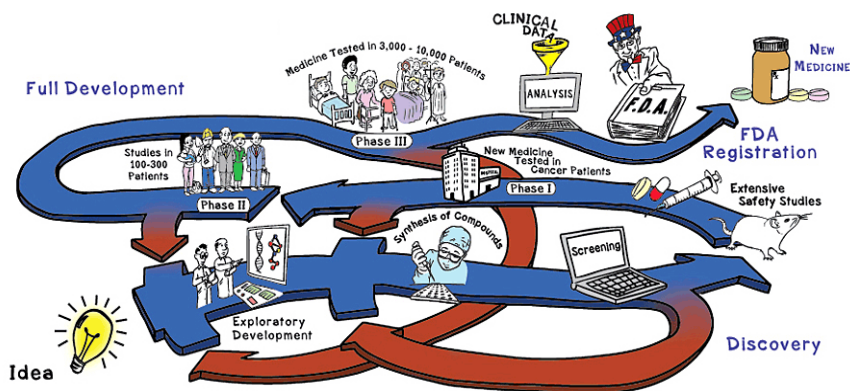
Allungamento dell'aspettativa di vita



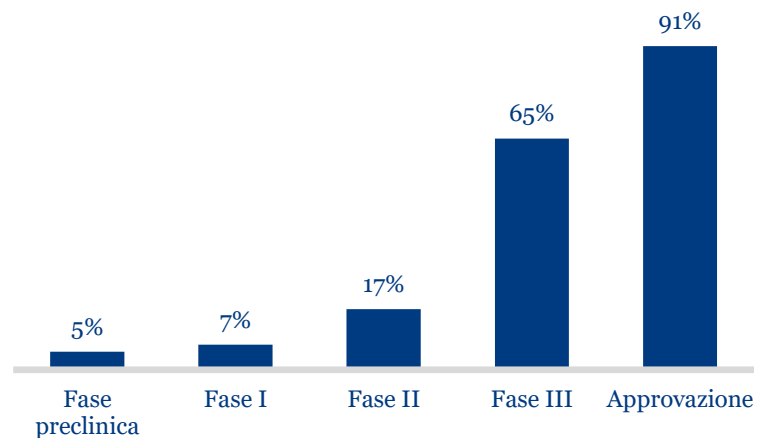
(*) "Pharmaceutical innovation and longevity growth in 30 developing OECD and high-income countries"

Fonte: The European House – Ambrosetti su dati AIFA, PhRMA, Thomson Reuters e ABPI, 2015

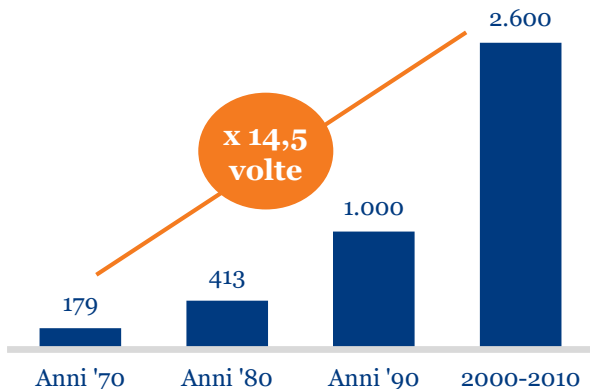
Processo di ricerca Lungo, Rischioso e Costoso



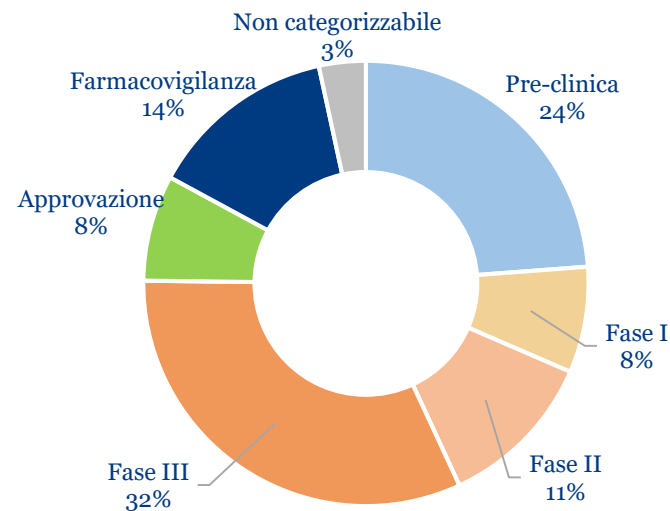
Probabilità che un farmaco arrivi sul mercato per fase, 1999-2010



Costo di sviluppo di un nuovo farmaco (milioni di dollari), 1975 e oggi



Costo di sviluppo di un nuovo farmaco per fase

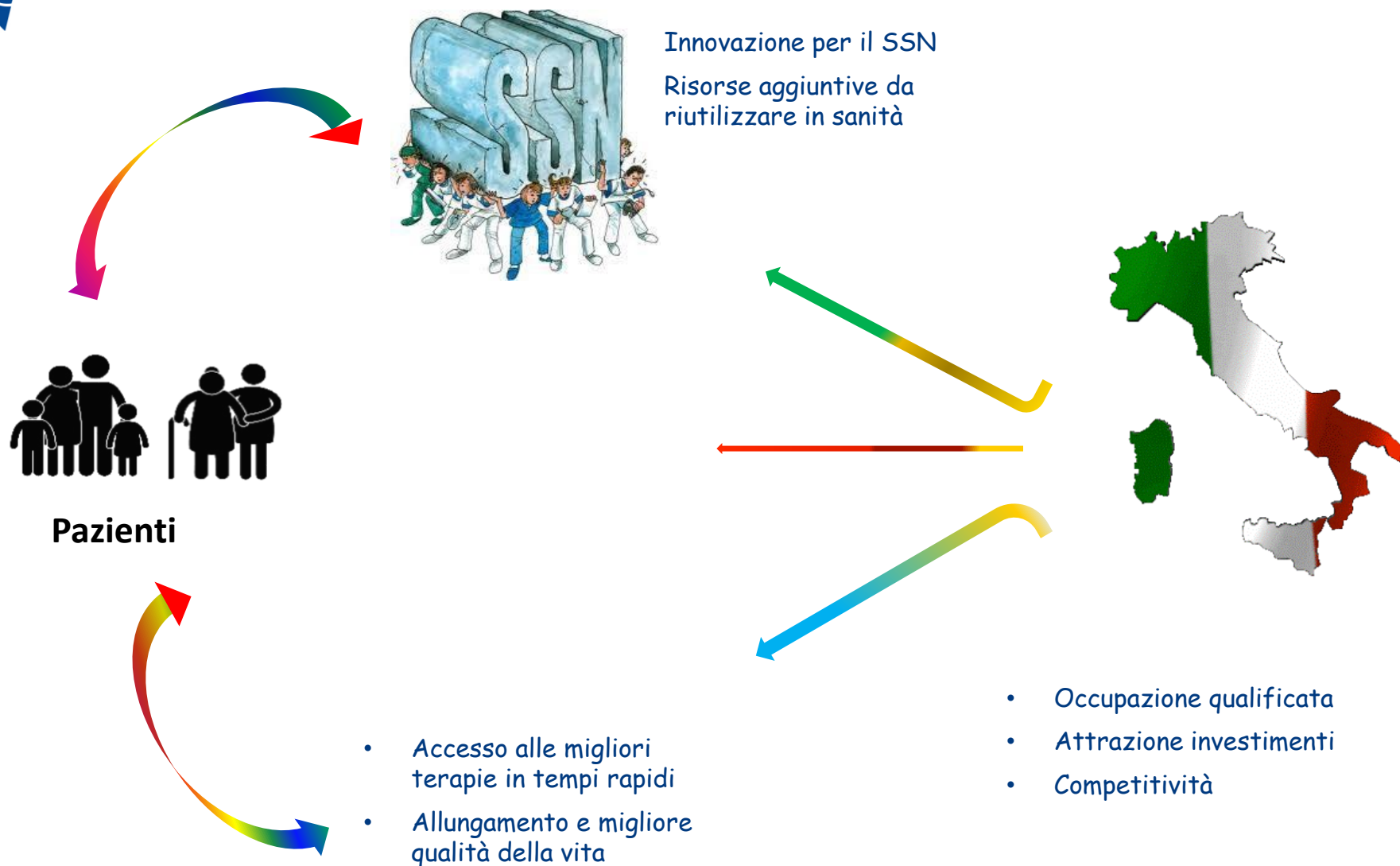




RICERCA E INNOVAZIONE

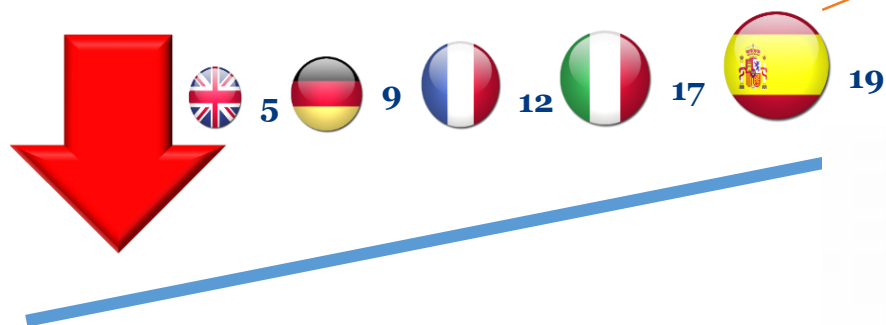


LA RICERCA CLINICA : UN ASSET PER I PAZIENTI E IL SSN



- **Trasparenza nelle informazioni**
- **Tempi lunghi e incerti per avvio studio clinico (in settimane, 2014)***

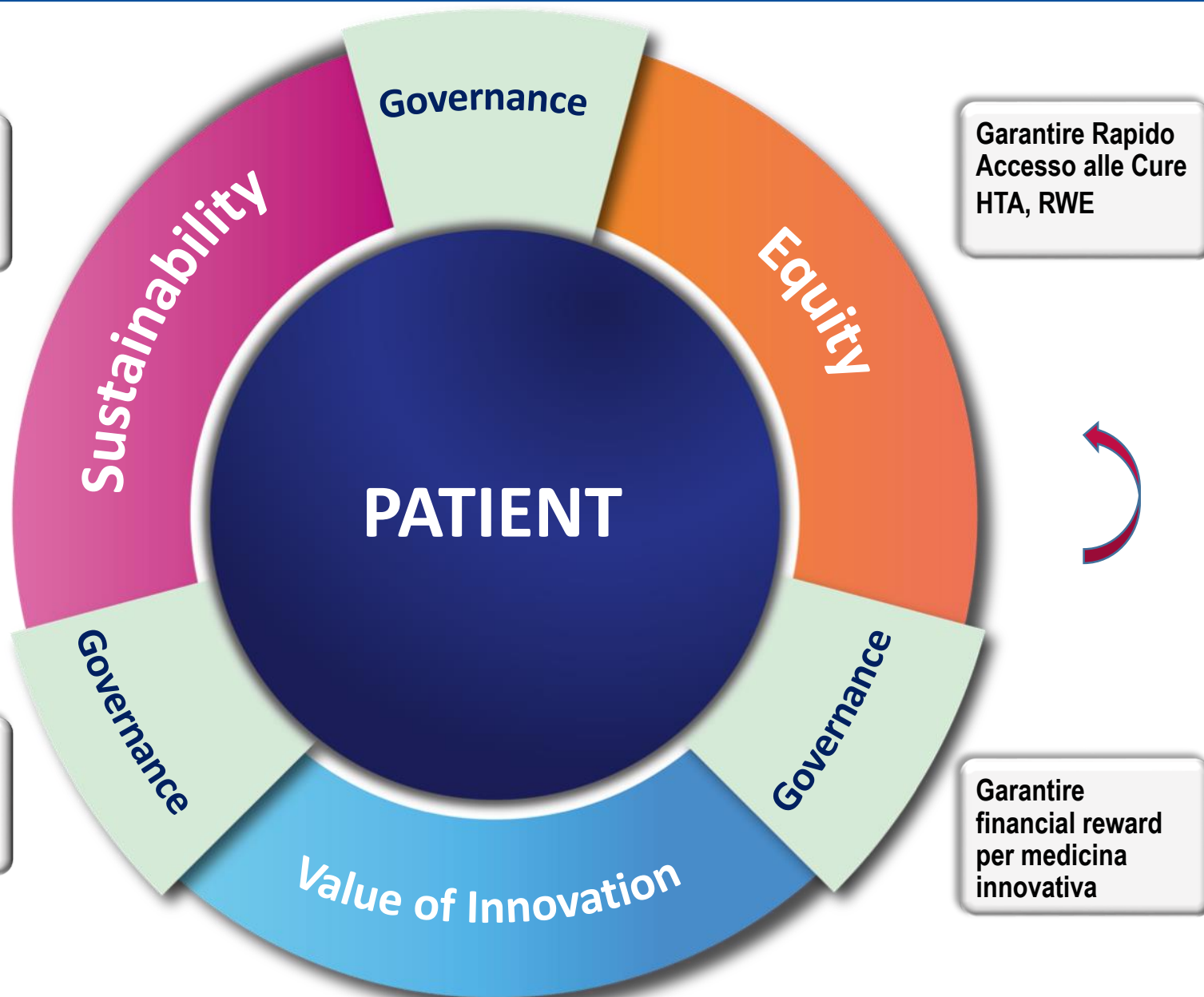
**Intervento della
regolamentazione**



- 
- **Qualità dei ricercatori**
 - **Qualità delle strutture**



INNOVAZIONE, SOSTENIBILITA', GOVERNANCE



Grazie!