



## Italian Horizon Scanning Project

# L'Italian Horizon Scanning Project

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HTA e HS come strumenti decisionali per l'appropriatezza d'impiego dei farmaci  
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# Health Technology Assessment

As HTA as an activity became more common practice around the world, it was increasingly recognized that **timeliness** of the assessment was **key** in the support of healthcare decision makers.



# What is horizon scanning?

Horizon Scanning is defined by the Office of Science and Technology (OST) as:

'The systematic examination of potential threats, opportunities and likely future developments, including (but not restricted to) those at the margins of current thinking and planning.'



# Why horizon scan for medicines?

- ✓ Manage budgets
- ✓ Plan services - new and redesign
- ✓ Anticipate pressures (financial and service delivery)
- ✓ Identify areas for disinvestment
- ✓ Manage entry into hospital/formulary/practice, etc
- ✓ Be prepared! It's better than fire fighting!



# Early Warning System

Banta and Gelijns were the first to conclude that it is not satisfactory to react to technological developments only when confronted with their consequences. Their study for the Dutch government in the 1980s called for a systematic approach to identification and early assessment of new health technologies to provide early notice to decision makers in health care.

An Early Warning System was subsequently established at the Dutch Health Council



**Comparative and timeliness**  
evaluation of new treatments  
**is the most important**  
**information** to provide policy  
makers with





The banner features a blue circular logo on the left with an eye icon and the text "New Drugs" and "Italian Horizon Scanning Project". The main text "Italian Horizon Scanning Project" is centered in a glowing blue font. Below it, a blue 3D-style box contains the text "New Drug" and "Themes Design". Several pills are shown floating in the air above the box. At the bottom of the banner are two dark blue buttons: "project" and "authorized users".

Italian Horizon Scanning Project

New Drug

Themes Design

project authorized users

Host organization: **Azienda ULSS 20 in Verona**





# Aims

**TO ORGANIZE and EVALUATE available information on emerging drugs BEFORE SUBMISSION of a MAA to Regulatory Agency and before any decision on COSTS and POSSIBLE CLASS OF REIMBURSEMENT**

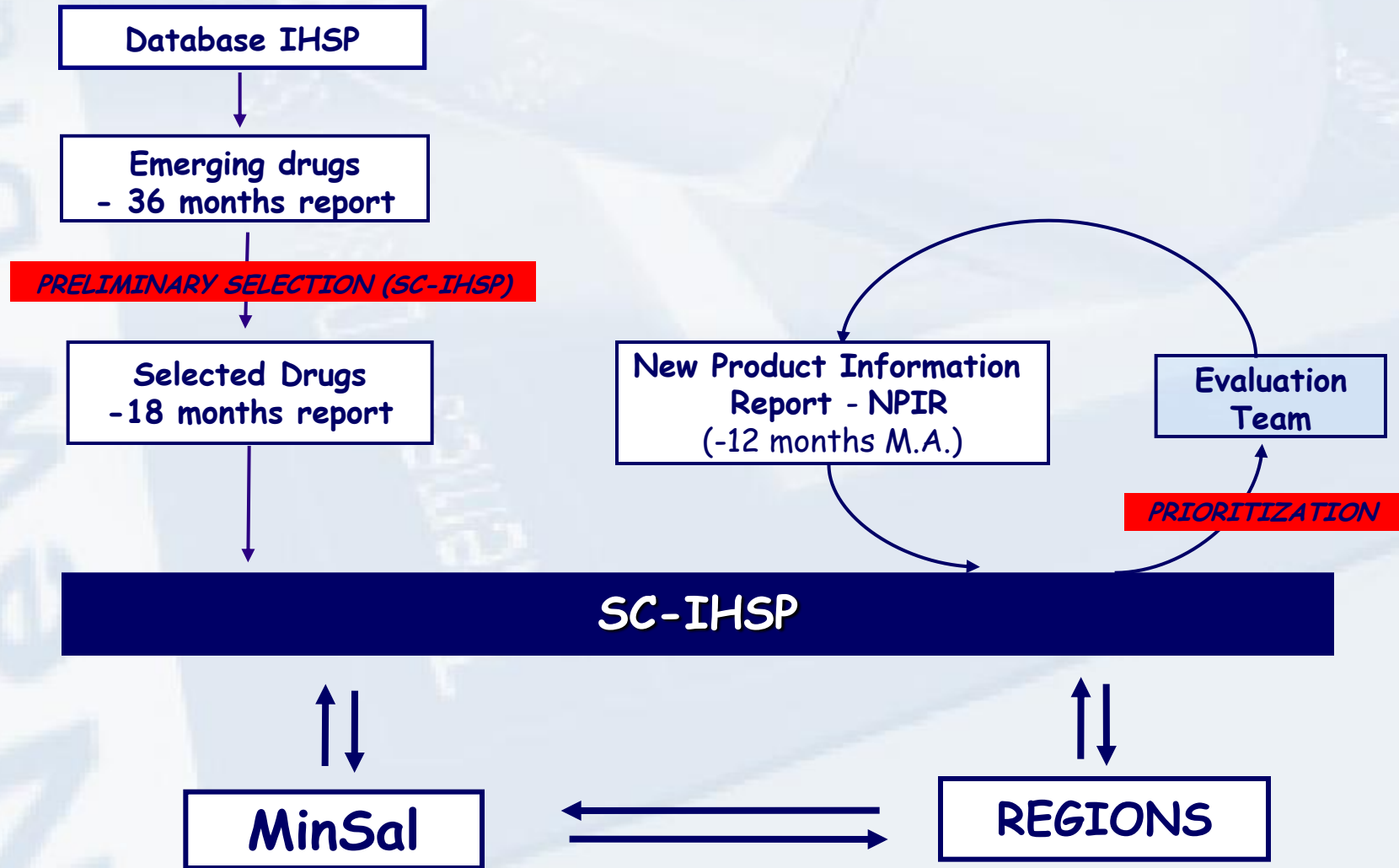
## **Specific aims:**

- ✓ to produce **periodical lists** of emerging drugs for which a MA will be expected within **12-36 months**
- ✓ to evaluate **potential clinical impact and cost effectiveness** in terms of healthcare and cost for National Health Service
- ✓ to give **well-timed information** to improve regulatory decisions about emerging drugs
- ✓ to identify **further research fields** needed to be investigated





# IHSP Workflow





# Methods and tools of the IHSP

New Drugs

Themes



## Organization Structure

Scientific Committee (SC)  
Database Team (DT)  
Evaluation Team (ET)

## Data Management

Information sources  
Evidence considered  
Data presentation  
Trial Quality Assessment

## IHSP Database

Data Collection  
Check  
Archive  
Discussion Forum

## IHSP Reports

Priority-setting criteria  
Output



## Scientific Committee

To prioritise drugs

To sign up experts to be involved in the assessment of prioritised drugs

To review and approve New Product Information Reports

## Database Team

To maintain and update the database

To guarantee the confidentiality of the stored data

To collect information

To produce the different reports of emerging medicines

## Evaluation Team

To produce the New Product Information Report



## Information Sources

Regulatory Agencies  
Medical-scientific literature  
Scientific databases  
Medical websites/Press-releases  
Pharmaceutical Bulletins

## Evidence considered

**Clinical Trial (Phase I-III):**

- ✓ Completed and published
- ✓ Completed not published
- ✓ Ongoing

## Data presentation

Narrative  
Tables of all Phase II-III studies

## Trial Quality assessment

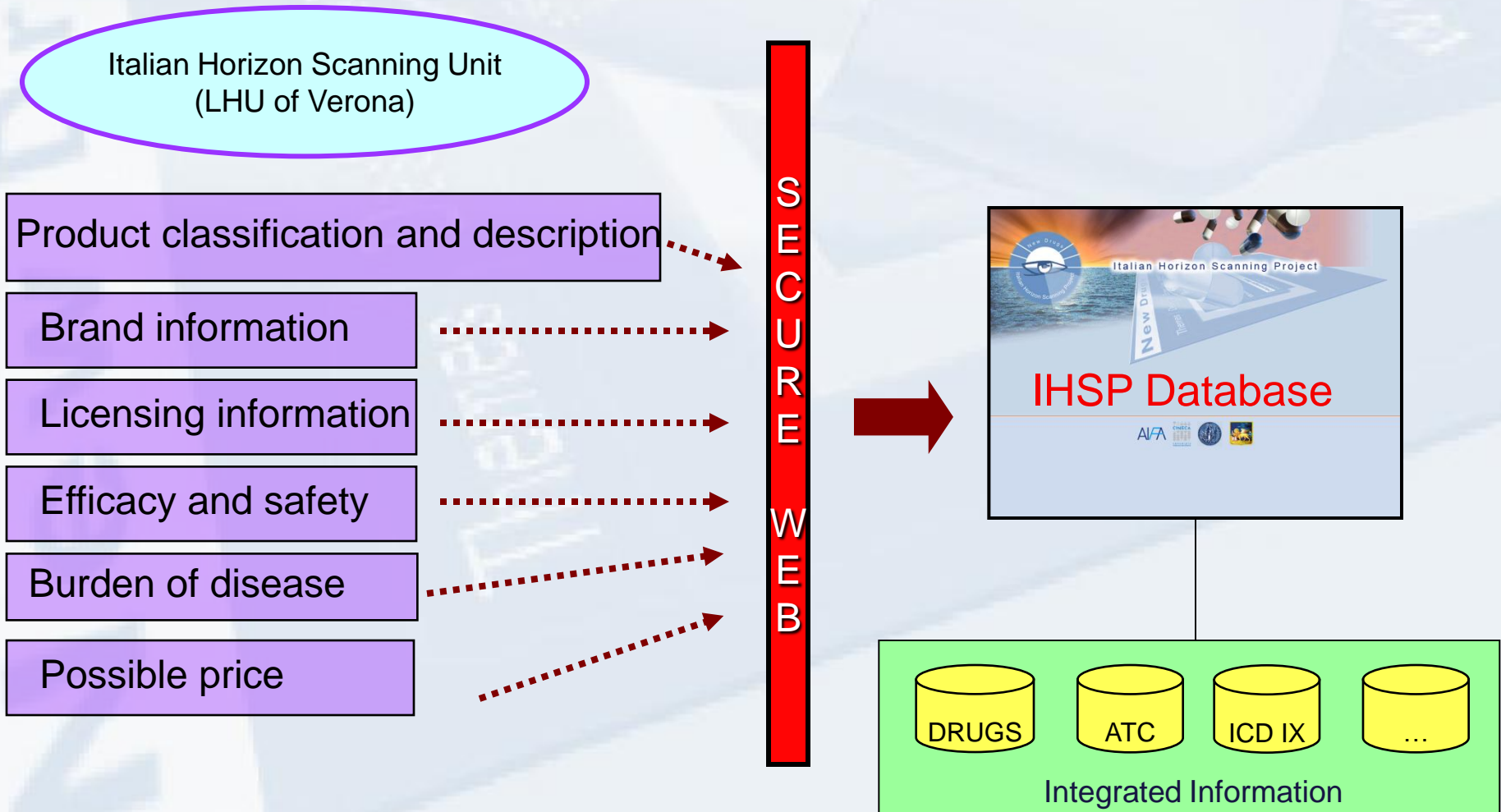
**Item evaluated (Jadad modified + 3-level Likert scale):**

- ✓ Design
- ✓ Allocation
- ✓ Blinding
- ✓ Lost to follow-up
- ✓ Protocol violation(s)
- ✓ Sample size
- ✓ Pre-specified secondary/sub-group analysis



# The IHSP Database

## Information Input





# *IHSP database - Drugs grouped by ATC*

<b>ATC code (I level)</b>	<b>ATC description</b>	<b>US+EU n</b>	<b>EU n</b>	<b>EU phase I n (%)</b>	<b>EU phase II n (%)</b>	<b>EU phase III n (%)</b>	<b>EU phase I/II+II/III n (%)</b>
L	Antineoplastic and immunomodulating agents	851	406	30 (7.4)	153 (37.7)	197 (48.5)	26 (6.4)
N	Nervous system	229	100	16 (16.0)	32 (32.0)	49 (49.0)	3 (3.0)
A	Alimentary tract and metabolism	149	84	11 (13.1)	25 (29.8)	45 (53.6)	3 (3.6)
J	Antiinfectives for systemic use	123	64	8 (12.5)	18 (28.1)	36 (56.3)	2 (3.1)
C	Cardiovascular system	96	58	0 (0.0)	16 (27.6)	41 (70.7)	1 (1.7)
B	Blood and blood forming organs	79	52	3 (5.8)	17 (32.7)	32 (61.5)	0 (0.0)
M	Musculo-skeletal system	71	27	4 (14.8)	7 (25.9)	12 (44.4)	4 (14.8)
R	Sistema respiratorio	53	29	6 (20.7)	9 (31.0)	14 (48.3)	0 (0.0)
G	Genito-urinary system and sex hormones	35	16	2 (12.5)	5 (31.3)	9 (56.3)	0 (0.0)
D	Dermatologicals	25	13	1 (7.7)	5 (38.5)	7 (53.8)	0 (0.0)
S	Sensory organs	27	12	0 (0.0)	4 (33.3)	7 (58.3)	1 (8,3)
V	Various	21	5	0 (0.0)	0 (0.0)	5 (100.0)	0 (0.0)
H	Systemic hormonal preparations, excl sex hormones and insulins	13	7	0 (0.0)	2 (28,6)	4 (57.1)	1 (14.3)
P	Antiparasitic products, insecticides and repellents	2	1	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
<b>Total drugs in development</b>		<b>1774</b>	<b>874</b>				
<b>Registered/launched drugs</b>		<b>322</b>	<b>175</b>				
<b>Discontinued/Suspended drugs</b>		<b>236</b>	<b>121</b>				
<b>Total number of items registered in the database</b>		<b>2332</b>	<b>1170</b>				

*Updated in June 2011*



# Priority-setting criteria used by SC-IHSP

AREA to INVESTIGATE	PARAMETERS	EVALUATION	
<i>Burden of disease</i>			
	Epidemiology	Rare	Not rare
	Severity	Severe	Not severe
	Duration	Acute	Chronic
	Treatment	Available	Absent
<i>Patient impact</i>			
	Efficacy vs. current treatments ( <i>mortality, morbidity, quality of life, etc.</i> )	Higher	Equal or Lower
	Safety vs. current treatments	Higher	Equal or Lower
	Compliance vs. current treatments	Higher	Equal or Lower
<i>NHS Pressures</i>			
	Social impact (Media, patients associations, lobbies ...)	YES	NO
	Service reorganization and/or staff training required	YES	NO
	Economic impact on the NHS	High	Low
<i>Others</i>			
	Possible launch date	≤ 18 months	> 18 months
	Drug in development for other indications of interest	YES	NO
	Other drugs in development for the same indication	YES	NO

# Outputs

**-36 MONTHS REPORT**  
Produced annually

- ❖ general information { *Drug/brand name/ active substance*  
*Company*  
*ATC Group*
- ❖ licensee
- ❖ stage of development
- ❖ possible submission date of the MAA
- ❖ main proposed indication(s)
- ❖ ongoing studies

- ❖ general information { *Drug/brand name /active substance*  
*Company*  
*ATC Group*  
*Route of administration*
- ❖ possible submission date of the MAA
- ❖ proposed indication(s)
- ❖ summary of the available data on clinical efficacy and safety
- ❖ overview of all ongoing trials and completed studies not published
- ❖ possible price and economic impact (if available)
- ❖ alternative(s) already on the market
- ❖ possible competitors in development

**-18 MONTHS REPORT**  
Produced every 6 months

**NPIR**  
**(-12 months to M.A.)**  
"Drug Name"  
"Drug Indication"

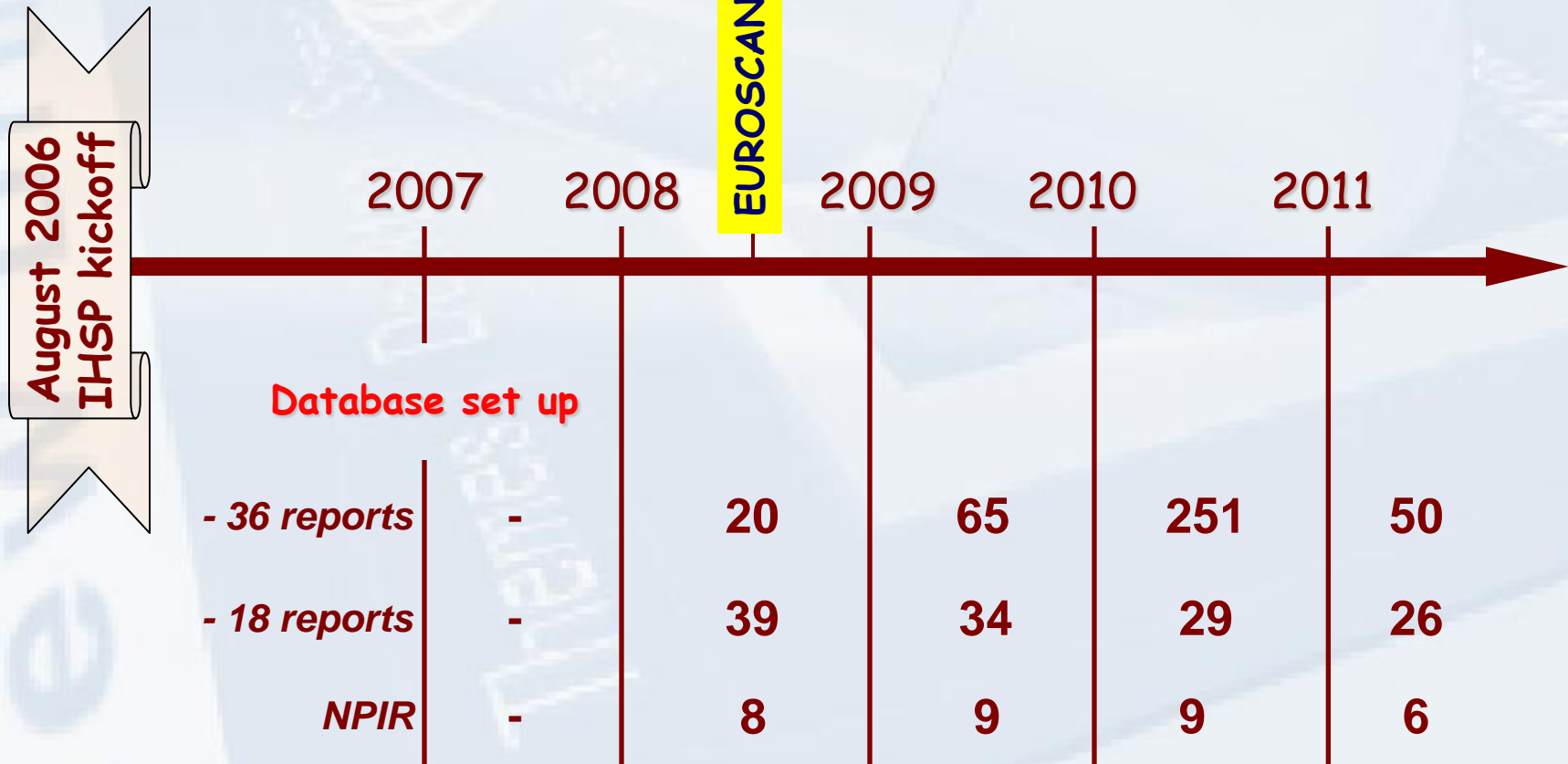
- ❖ general information { *Active substance*  
*Brand name*  
*Company*  
*ATC Group*  
*Dosage*  
*Route of administration*  
*Development state*  
*.....*
- ❖ clinical need and burden of disease
- ❖ summary of efficacy/safety data from available clinical trials
- ❖ clinical critical assessment
- ❖ social / economic impact
- ❖ ongoing trial(s) for the same or other indication(s)

***Molecules for which an M.A. in EU is expected within 18 months  
(with prioritisation results of November 2011)***

<b>ATC</b>	<b>Molecule</b>	<b>Indication</b>	<b>Classification</b>	<b>Orphan status</b>	<b>Prioritisation results</b>
L01	<b>AFLIBERCEPT</b>	Metastatic colorectal cancer, second-line	NCE	–	<b>P</b>
L01	<b>ALPHARADIN (radium-223)</b>	Bone metastasis in patients with hormone-refractory prostate cancer	NCE	–	<b>KW</b>
L01	<b>CABOZANTINIB</b>	Unresectable, locally advanced or metastatic medullary thyroid cancer	NCE	US	<b>KW</b>
L01	<b>CARFILZOMIB</b>	Relapsed-refractory multiple myeloma (monotherapy)	NCE	EU/US	<b>KW</b>
L01	<b>CRIZOTINIB</b>	Previously-treated, advanced ALK-positive non-small cell lung cancer	NCE	US	<b>P</b>
L01	<b>EVEROLIMUS</b>	Postmenopausal ER+ HER2- metastatic breast cancer progressing after endocrine therapy	NI	–	<b>P</b>
L01X	<b>PERTUZUMAB</b>	HER2-positive, metastatic breast cancer, first-line plus trastuzumab and docetaxel	NCE	–	<b>P</b>
L01	<b>VEMURAFENIB</b>	BRAF V600E mutation-positive metastatic melanoma	NCE	–	<b>P</b>
L01	<b>VISMODEGIB</b>	Locally advanced or metastatic basal cell carcinoma	NCE	–	<b>KW</b>
C10	<b>MIPOMERSEN</b>	Homozygous and severe heterozygous familial hypercholesterolemia	NCE	–	<b>P</b>
L04A	<b>ALEMTUZUMAB</b>	Relapsing-remitting multiple sclerosis (treatment-naive patients)	NI	–	<b>KW</b>
L04A	<b>ALEMTUZUMAB</b>	Relapsing-remitting multiple sclerosis (treatment-refractory patients)	NI	–	<b>KW</b>
N07	<b>LAQUINIMOD</b>	Relapsing-remitting multiple sclerosis	NCE	–	<b>KW</b>
N07	<b>TERIFLUNOMIDE</b>	Relapsing multiple sclerosis with or without progression (add-on)	NCE	–	<b>KW</b>
N07	<b>TERIFLUNOMIDE</b>	Relapsing multiple sclerosis with or without progression (monotherapy)	NCE	–	<b>KW</b>



# *IHSP chronology*



*Total IHSP documents (n): 546*



# EuroScan

In 1999 several Horizon Scanning Systems (HSS) established EuroScan, an information network on new and changing health technologies.

The network currently consists of 21 representatives (Canada, Denmark, Norway, Sweden, Australia, New Zealand, The Netherlands, The United Kingdom, Israel, Spain, France, Switzerland, Germany, Ireland, Austria, Italy, Finland).

Any HSS is a non-profit organization with at least 50% funding from public sources

Since November 2008, IHSP is a member of:



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### About EuroScan

The International Information Network on New and Emerging Health Technologies (EuroScan) is a collaborative network of member agencies for the exchange of information on important emerging new drugs, devices, procedures, programmes, and settings in health care.

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to develop the sources of information

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