



European Technology Platform “Zero Emission Fossil Fuel Power Plant” ZEFFPP

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Technology Platform ZEFFPP: Set Up and Vision

European Technology Platform
Zero Emission Fossil Fuel Power Plant
CSLF Delhi 2-4April 2006

● EU Clean Fossil Power Initiative

- Aiming for critical mass programme
- Established European Technology Platform with EC
- Primary task to set **technology agenda and deployment plan**
- Major input to EC FP7 (2006-2013)

● ETP “Zero Emission Fossil Fuel Power Plants”

- **Advisory Council** formed 21Jun05 comprising senior individuals from :-
 - **6 Generators** : EoN, Endesa, ENEL, RWE, Vattenfall, Energie E2
 - **6 Equipment suppliers** : Ansaldo, ALSTOM, Air Liquide, Foster Wheeler, Mitsui Babcock, Siemens
 - **5 Oil/Gas** : BP, Shell, Statoil, Total, Schlumberger
 - **4 Researchers** : BGS, CIRCE, IFP, Polish CMI
 - **3 NGOs** : Bellona, CAN Europe, WWF

Vision Statement

To enable European fossil fuel power plants to have zero emission of CO₂ by 2020

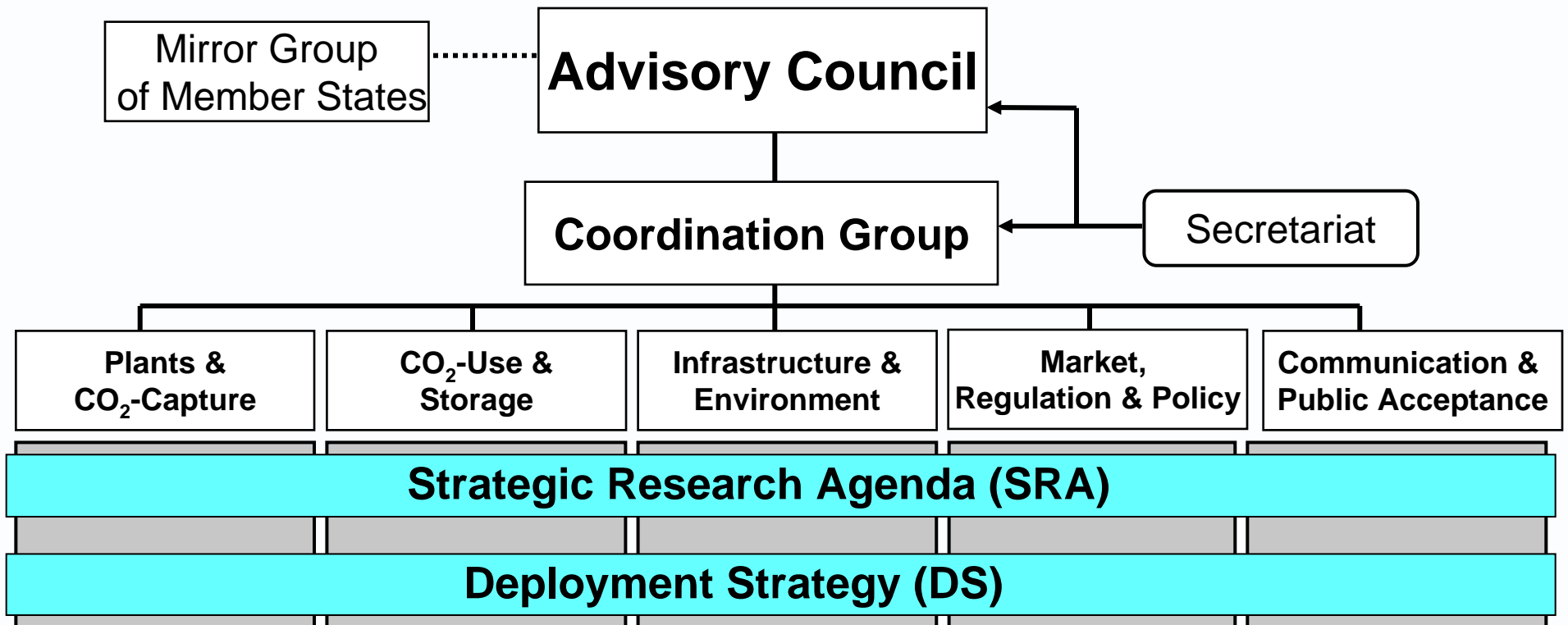
Chair : Haege/Vattenfall

Vice Chairs : Appert/IFP
Hill/BP
Soothill/ALSTOM
Valero/CIRCE



Technology Platform ZEFFPP: Organisational Structure

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Technology Platform ZEFFPP: Members of Advisory Council

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Generators

| | | |
|-------------------------|----------------------|-----------|
| Kurt Haege | Vattenfall AB(Chair) | : Germany |
| Bernhard Fischer | E.ON Energie AG | : Germany |
| Santiago Sabugal Garcia | ENDESA Generation | : Spain |
| Johannes Lambertz | RWE Power AG | : Germany |
| Gennaro de Michele | ENEL | : Italy |
| Hakon Mosbech | ENERGI E2 A/S | : Denmark |

Equipment Suppliers

| | | |
|------------------|-----------------------------|-----------|
| Charles Soothill | ALSTOM (Vice-Chair) | : UK |
| Harry Lampenius | Foster Wheeler | : Finland |
| Iain Miller | Mitsui Babcock | : UK |
| Norbert Koenig | Siemens AG Power Generation | : Germany |
| Francois Jackow | Air Liquide | : France |
| Giuseppe Zampini | Ansaldo Energia SpA | : Italy |

Oil/Gas

| | | |
|-----------------------|---------------------|----------|
| Gardiner Hill | BP (Vice-Chair) | : UK |
| Jean-Michel Gires | Total SA | : France |
| Philippe Lacour-Gayet | Schlumberger | : France |
| Graeme Sweeney | Shell Gas and Power | : UK |
| Arve Thorvik | Statoil | : Norway |

Research

| | | |
|-------------------------|--------------------|-----------|
| Olivier Appert | IFP (Vice-Chair) | : France |
| Antonio Valero | CIRCE (Vice-Chair) | : Spain |
| Niels Peter Christensen | GEUS | : Denmark |
| Josek Dubinski | CMI | : Poland |
| David Falvey | BGS | : UK |

NGOs

| | | |
|----------------|-------------------------------|-----------|
| Frederic Hauge | The Belona Foundation | : Norway |
| Kirsten Macey | Climate Action Network Europe | : Belgium |
| Stephan Singer | WWF International | : Belgium |



Technology Platform ZEFFPP: Organisation Engagement

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| WG | 1 | 2 | 3 | 4 | 5 | Total | % |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Generators | 7 | 4 | 2 | 7 | 4 | 24 | 26 |
| Suppliers | 7 | 2 | 5 | 3 | 1 | 18 | 19 |
| Oil/Gas&Infrastructure | 2 | 3 | 7 | 2 | 2 | 16 | 17 |
| Research | 6 | 11 | 3 | 3 | 4 | 27 | 29 |
| NGO | 1 | 2 | 1 | 2 | 2 | 8 | 9 |
| Total | 23 | 22 | 18 | 17 | 13 | 93 | |
| % | 25 | 24 | 19 | 18 | 14 | | 100 |

Status 12th February 2006

Involvement from >60 organisations

Industry ~60%
Research ~30%
NGO ~10%



Technology Platform ZEFFPP: Country Involvement

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| WG | 1 | 2 | 3 | 4 | 5 | Sum |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Germany | 3 | 6 | 2 | 4 | 2 | 17 |
| France | 3 | 3 | 1 | 2 | 3 | 12 |
| Austria | 1 | | | | 1 | 2 |
| Sweden | 1 | | | | 1 | 2 |
| Finland | 1 | | 1 | | | 2 |
| UK | 4 | 1 | 3 | 2 | 1 | 11 |
| Norway | 1 | 3 | 2 | 2 | 1 | 9 |
| Italy | 1 | 2 | 2 | 3 | 1 | 9 |
| Poland | 1 | | 1 | | | 2 |
| Denmark | 1 | 1 | | | | 2 |
| Spain | 2 | 3 | 2 | 2 | 1 | 10 |
| The Netherlands | 1 | 1 | 1 | | 1 | 4 |
| Belgium | 1 | | | 1 | 1 | 3 |
| Switzerland | | | | | | |
| Greece | 1 | 1 | 1 | | | 3 |
| Slovakia | | 1 | | | | 1 |
| Portugal | 1 | | | | | 1 |
| Iran | | | 1 | | | 1* |
| US | | | 1 | | | 1* |
| Venezuala | | | 1 | | | 1* |
| Total | 23 | 22 | 19 | 16 | 13 | 93 |

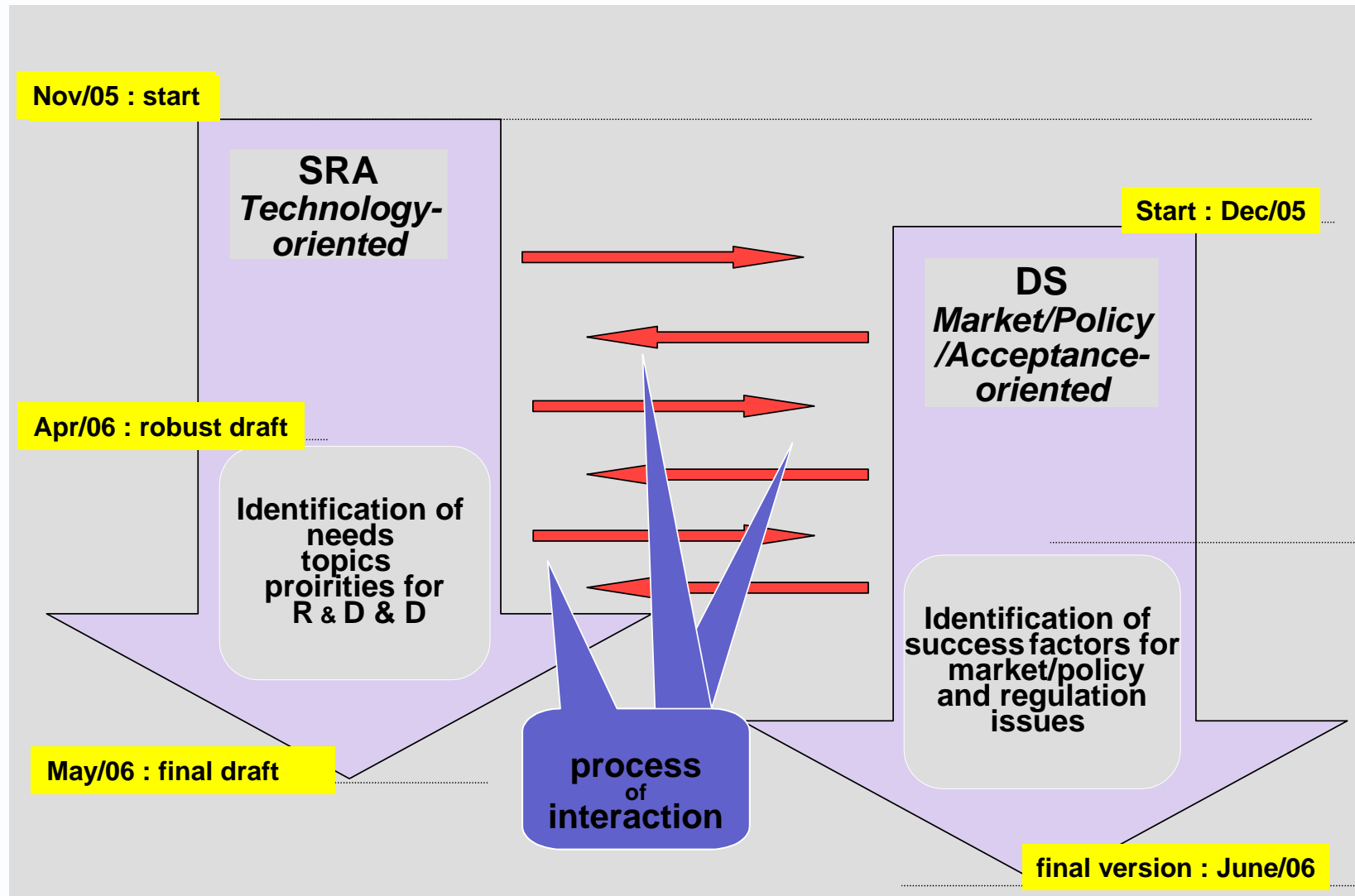
Status 12th February 2006

| | |
|--|----|
| Member/Associated States | 17 |
| Others (* Non EU person in EU companies) | 3 |



ZEFFPP ETP Action : Key Outputs and Timing

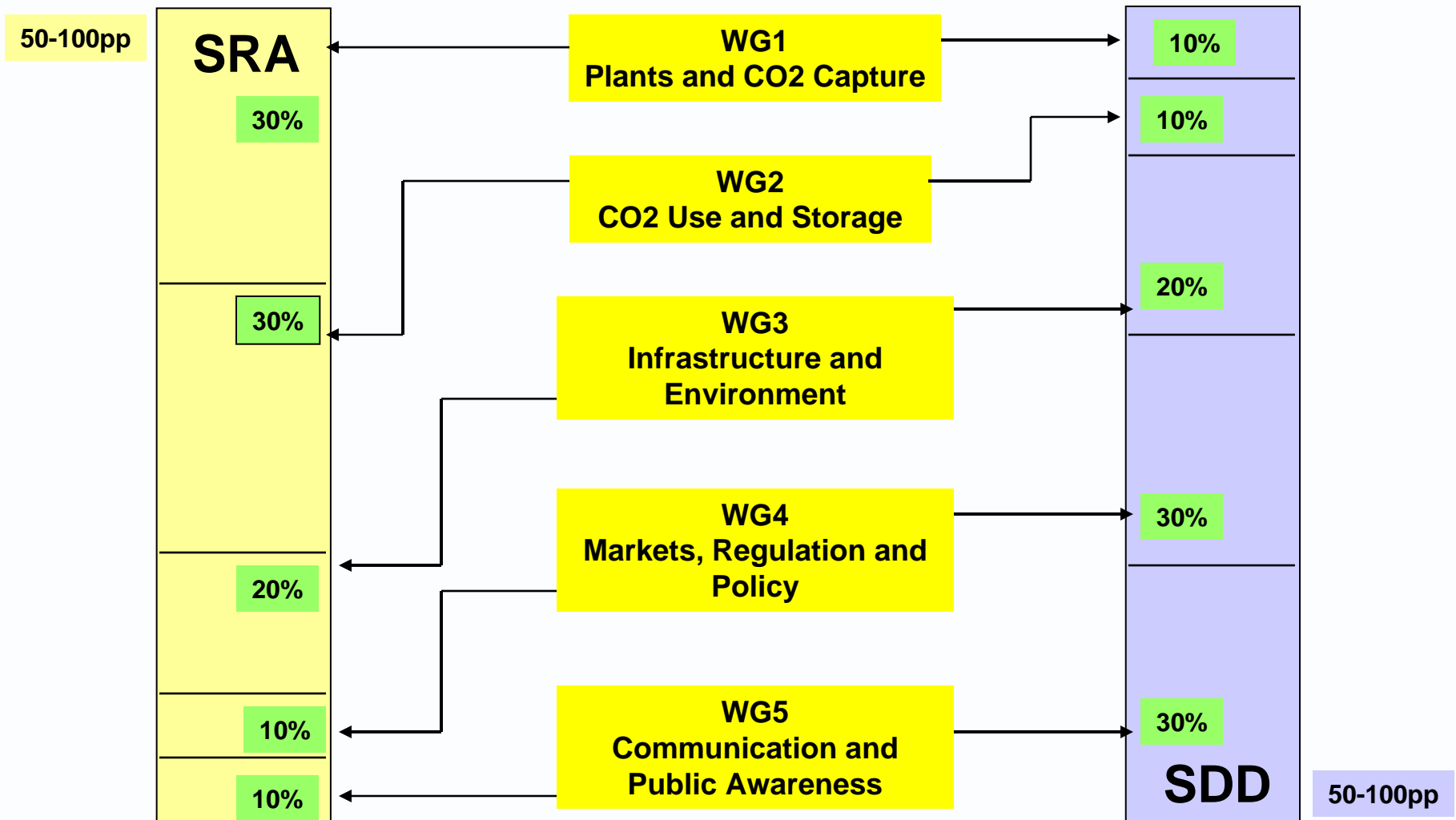
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Technology Platform ZEFFPP: SRA/SDD Balance

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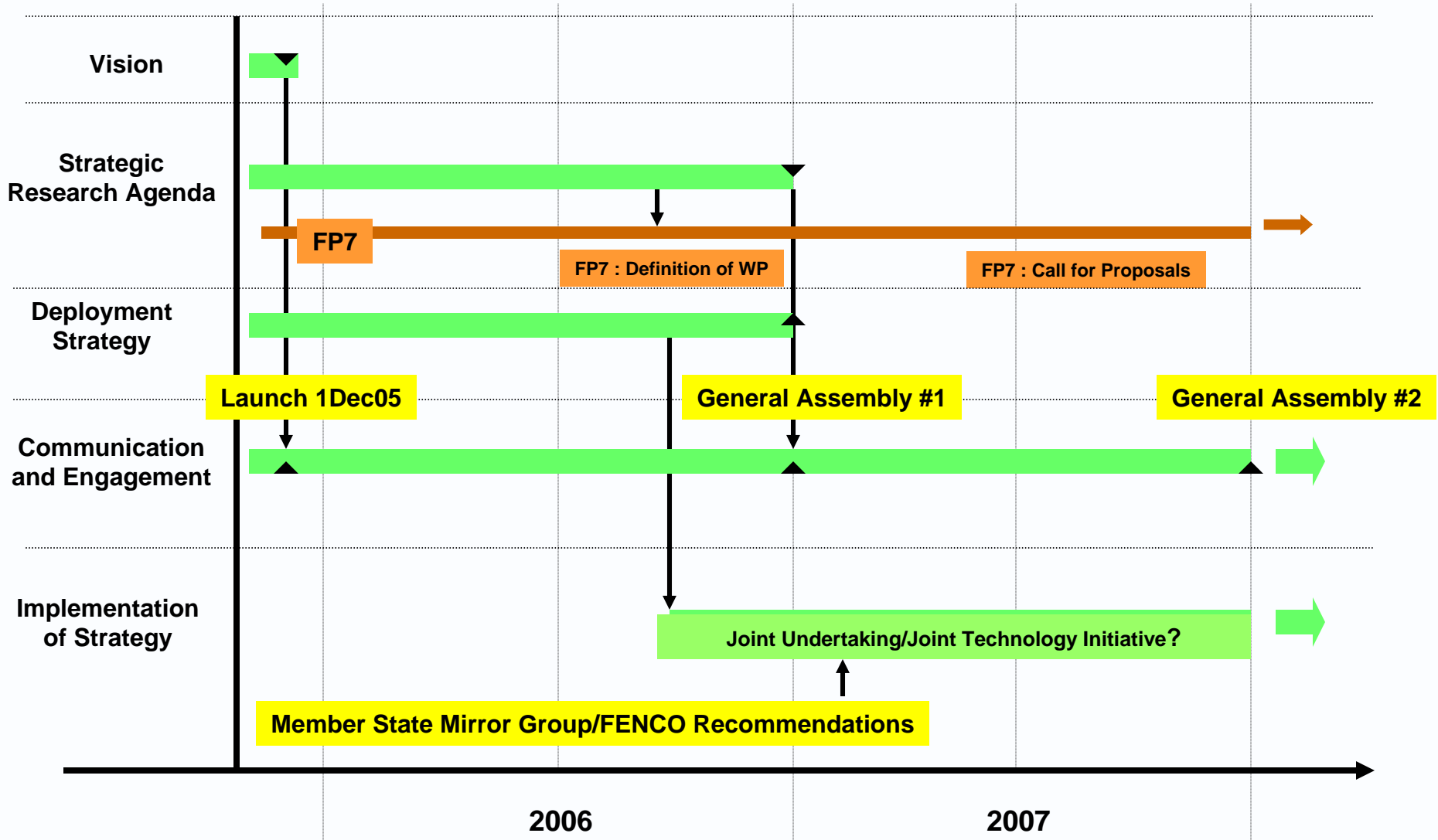




ZEFFPP ETP : High Level 2-Year Milestones/Timing

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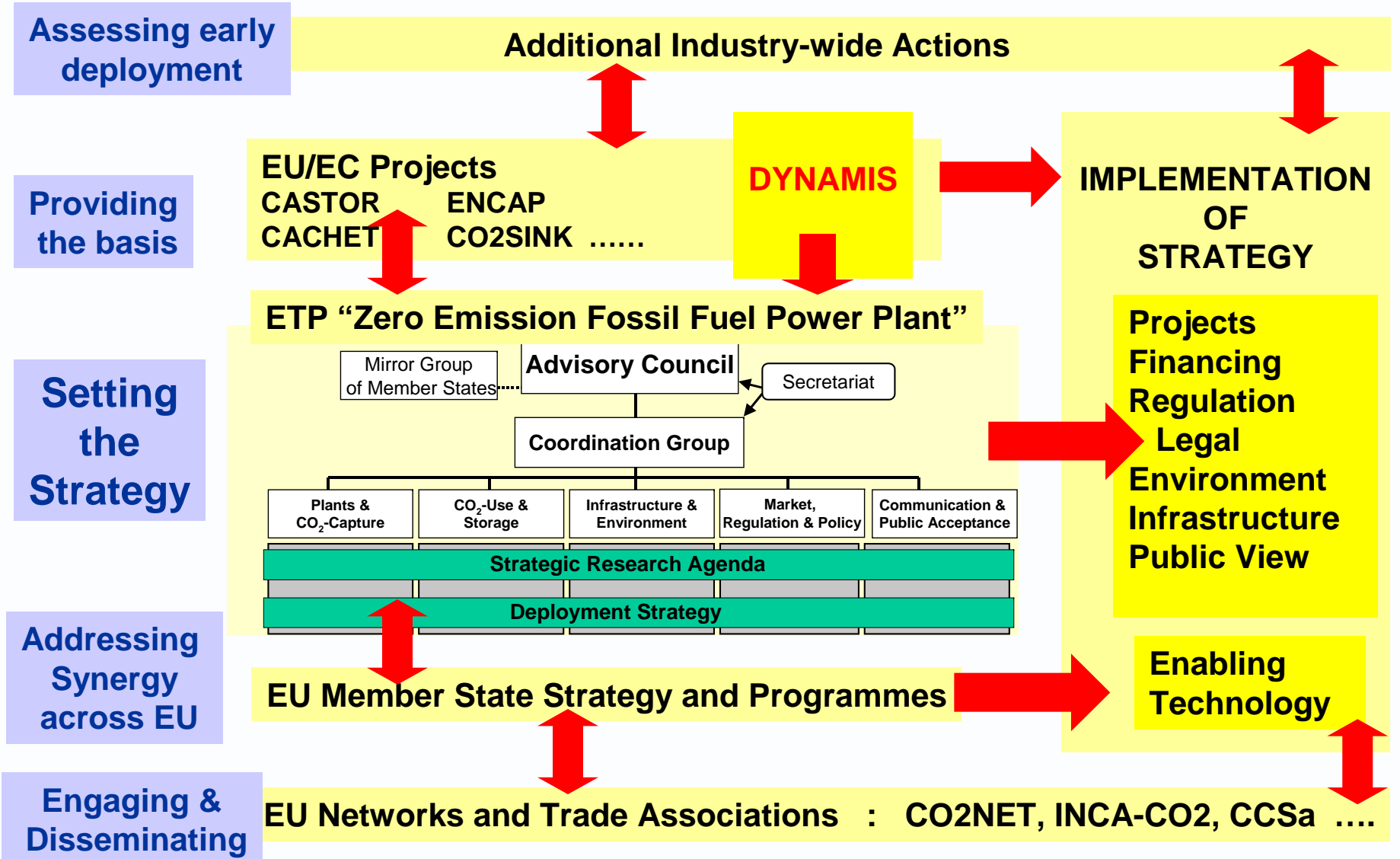
Key Tasks





ZEFFPP ETP : Strategic Positioning

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