e-Navigation Underway 2013
Ulf Svedberg
Swedish Maritime Administration
Scope of MONALISA 2.0

1. Extended Testbed
2. Human Factors
3. STM Definition Phase
4. Safe Ship
5. Operational Safety
### Route optimization or Voyageplans

<table>
<thead>
<tr>
<th>Information</th>
<th>Needs</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
<td>Earliest possible ETA</td>
<td>UKC and Airdraft</td>
</tr>
<tr>
<td>Berth available</td>
<td>Economic route</td>
<td>Landmasses</td>
</tr>
<tr>
<td>Pilot available</td>
<td>Good weather</td>
<td>TSS Areas</td>
</tr>
<tr>
<td>MSI</td>
<td>Cargo &amp; Charterers</td>
<td>No-Go Areas</td>
</tr>
</tbody>
</table>
Route construction

Captains Demands

Route exchange

Information, Needs, Constraints

Jeppesen  SAAB  Transas

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Need to Know

Need to Share

Information Management

Control the Flow!
SAFE SEA NET

Single Window

- Bunker
- Waste
- Hazmat
- Cargo
- Pax
- Crew
- FAL
- ETA
- AIS

- Port Authorities
- Customs
- Immigration
- Pilotstation
- Coast Guard
- Agents
- Authorities
- Cargo Owner

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FLOW OF INFO

AIS
CARGO
Customs
METEO
HYDRO
PORT
ETA

Process
Share
Validate
Store

Agent
STCC
Ports
SRS
VTS
Owner
Freight
Immigrat.

SWIM - Pool
System Wide Information Management

Single European Sky ATM Research

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU- Commission</td>
<td>350 mio €</td>
</tr>
<tr>
<td>TEN-T</td>
<td>350 mio €</td>
</tr>
<tr>
<td>Eurocontrol</td>
<td>700 mio €</td>
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<tr>
<td>Industry</td>
<td>700 mio €</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2,1 Bill €</td>
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</tbody>
</table>

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Next Generation

USA

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Common Information Sharing Environment

DG MARE CISE Project

A graphic vision to describe the CISE:
- a global fluidity of data,
- a decentralized services-oriented solution,
- a multilayered Recognized Maritime Picture for each User Community

(From FP6 OPERAMAR)
Today
Surface Based Operations

To come
Voyage Based Operations

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Voyage no’s in the complete STM process

STM Planning Phases
- **Strategical**
- **Tactical**
- **Executional**

Life cycle of the Shipping Business
- Business development
- Shore operations
- Ocean passages
- Routeing UNCLOS
- Coastal Navigations
- Anti-Collision COLREG

SWIM...Pool

- Shipowner Strategic Planning
- Marketings
- Schedules
- Cruise industry
- Politics
- Major events
- IMO and SOLAS impacts

- Charterings
- Long term contracts
- Sharing conferences
- Berthings preps
- Port operations

- Voyage plans
- Weather routeings
- Maritime spatial plans
- Coast Routeings
- Monalisa
- Fairway limitations

- Open sea pilotage
- Anti-Collision
- Close encounters
- TSS, SRS and VTS Areas
- Congestion Planning

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Thank You!
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