

Experience: MISCHIEF

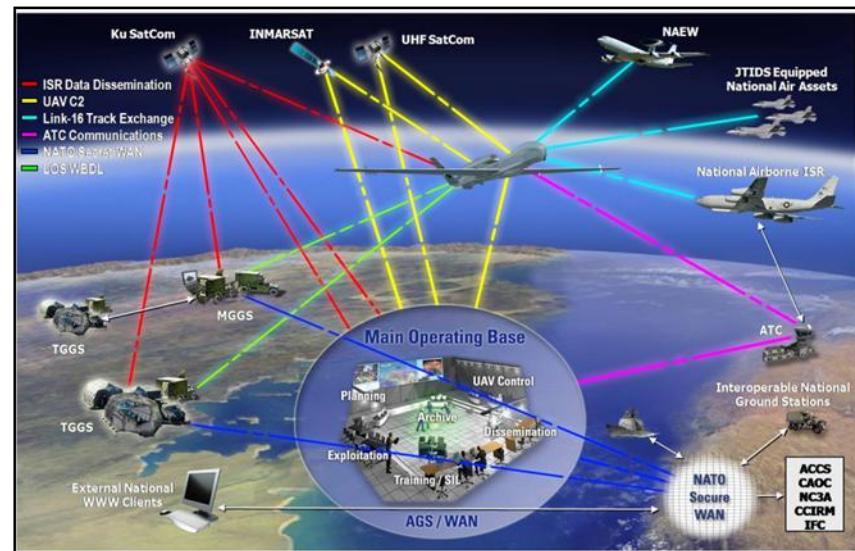


*Multiple Interoperable Systems for joint Control of
Hybrid threats through Intelligent Extended Fusion*

MISCHIEF

A New Program is activated to develop a new generation of Aerial Early Warning Systems based on combined use of Drones and New Platforms.

The Program is called MISCHIEF and includes different Platforms





Airship AR1

AR1 is an Airship

Length 280 feet

Ceiling 60'000 Feet

Max Speed 300 knots

Autonomy 12'000 km

Costs Acquisition 200 M Euro/unit 40 M Euro/year unit

Max Payload 50 tons

Max Volume 300 m³

Drone

Takeoff/Landing 3 hours

MTBF 1200 h MTTR 32

Preventive Maintenance 1h per 10h flight





AWACS 787-SR-NG

Commercial Plane converted

Length 75 m

Ceiling 50'000 Feet

Max Speed 480 knots Autonomy 12'500 km



Costs Acquisition 300 M Euro/unit 200 M Euro/year unit

Max Payload 200 tons

MTBF 1100 h MTTR 56

Max Volume 50 m³

Preventive Maintenance 2h per
3h flight

Crew 6 and 10 Analysts

Takeoff/Landing 30 minute





GE-1000EWS

MTBF 1300 h MTTR 30

*Preventive Maintenance 1h per
3h flight*

GE-1000EWS is an fixed wing drone

Length 20 m

Ceiling 60'000 Feet

Max Speed 360 knots Autonomy 20'000 km

Costs Acquisition 160 M Euro/unit 50 M Euro/year unit

Max Payload 30 tons

Max Volume 1 m³

Drone

Takeoff/Landing 20 minutes





RDEWS-150

MTBF 600 h MTTR 42

Preventive Maintenance 3h per 4h flight

RDEWS-150 is an Rotary wing drone to be installed over ships or towns

Length 12 m

Ceiling 60'000 Feet



Max Speed 100 knots Autonomy 1'500 km

Costs Acquisition 20 M Euro/unit 8 M Euro/year unit

Max Payload 1 tons

Max Volume 0.5 m³

Drone

Takeoff/Landing 15 minutes





Sensors

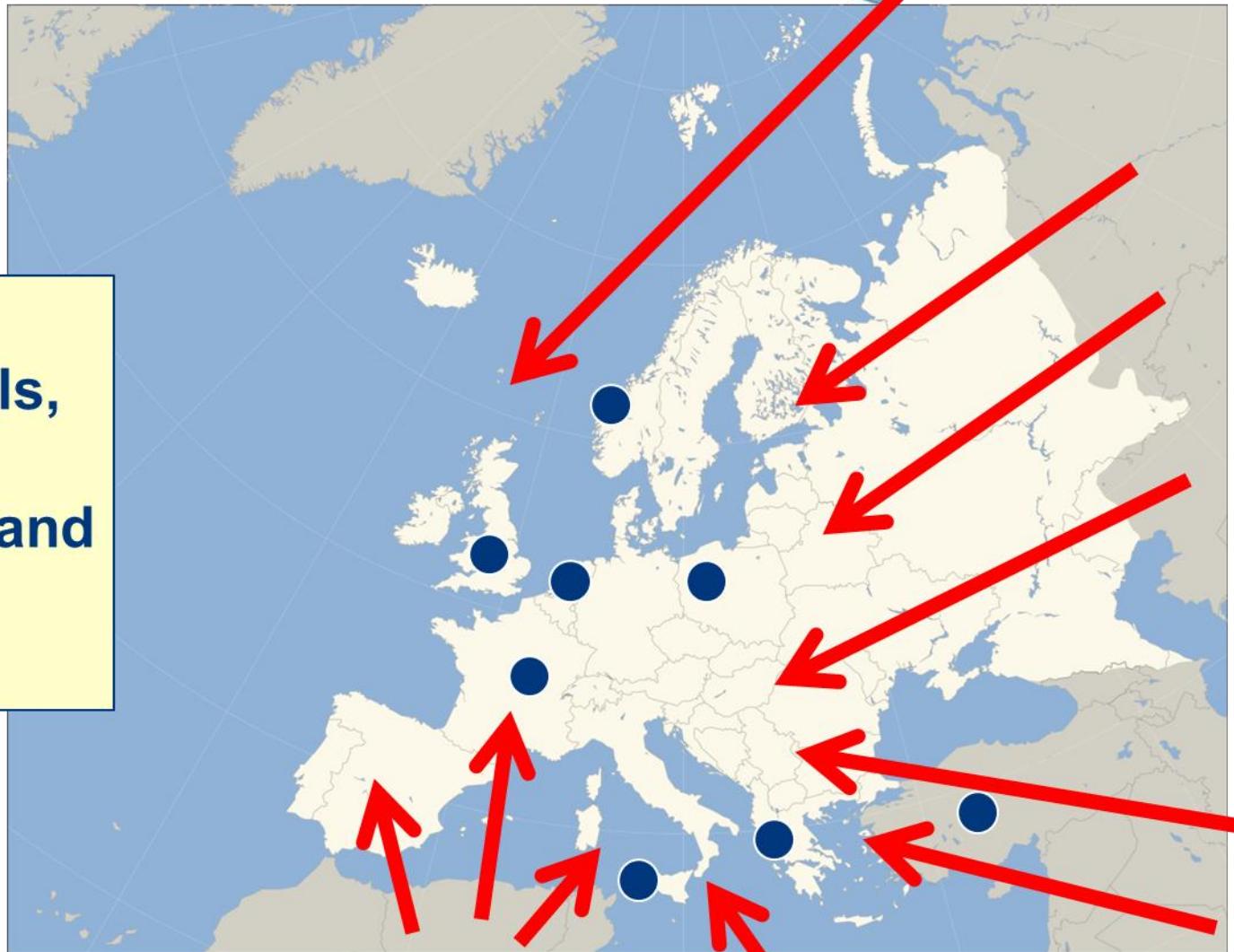


Radar	Range Max	Acq. Cost	Op. Cost	Resolution	Detection	MTBF	MTTR	Weight	Volume
Name	[km]	[MEuro/year]	[MEuro/year]	[m2]	Reliability	[h]	[h]	[tons]	[m3]
RDK1	500	100	25	1.00	95.0%	592.00	48.00	48.000	30.000
RDK2	100	10	2	1.00	94.0%	552.00	48.00	48.000	20.000
RDK3	100	10	3	1.00	93.0%	516.71	48.00	28.000	1.000
RDK4	50	2	0.5	1.00	94.0%	276.00	24.00	1.000	0.500
RDK5	120	25	7.5	0.25	98.0%	180.57	48.00	16.000	0.500
RDK6	50	16	4	0.50	96.0%	352.00	48.00	22.000	0.500
RDK7	100	14	2.8	10.00	80.0%	204.57	24.00	6.000	0.800
RDK8	40	4	1.6	5.00	88.0%	318.86	24.00	1.000	0.200
RDK9	35	2	0.4	0.20	97.0%	133.13	48.00	0.500	0.250
RDK10	60	0.5	0.125	7.00	84.0%	251.41	24.00	0.500	0.250



Scenario...

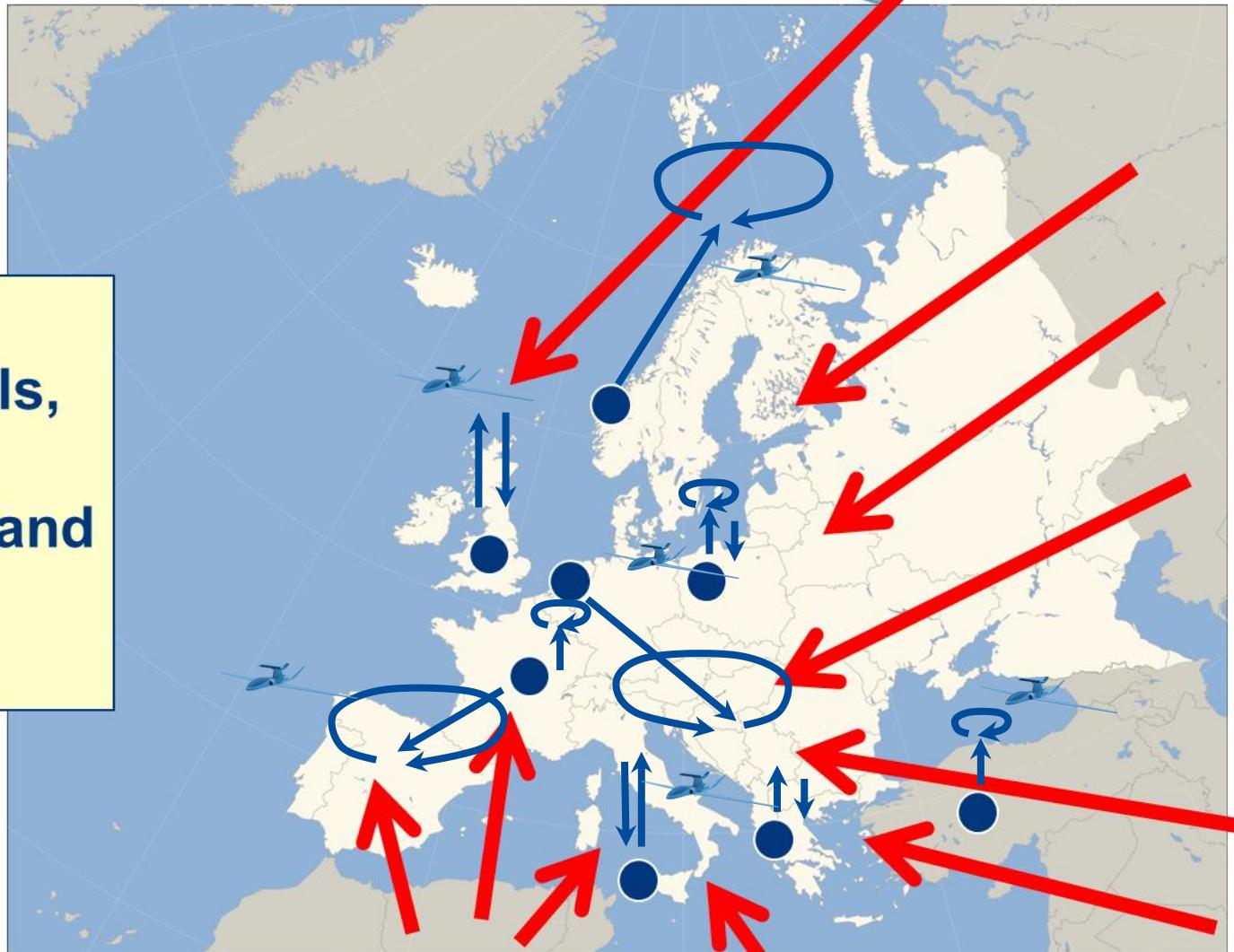
**First Task
Finalize Goals,
Objectives,
Constraints and
SOW for
MISCHIEF**





CONOPS...

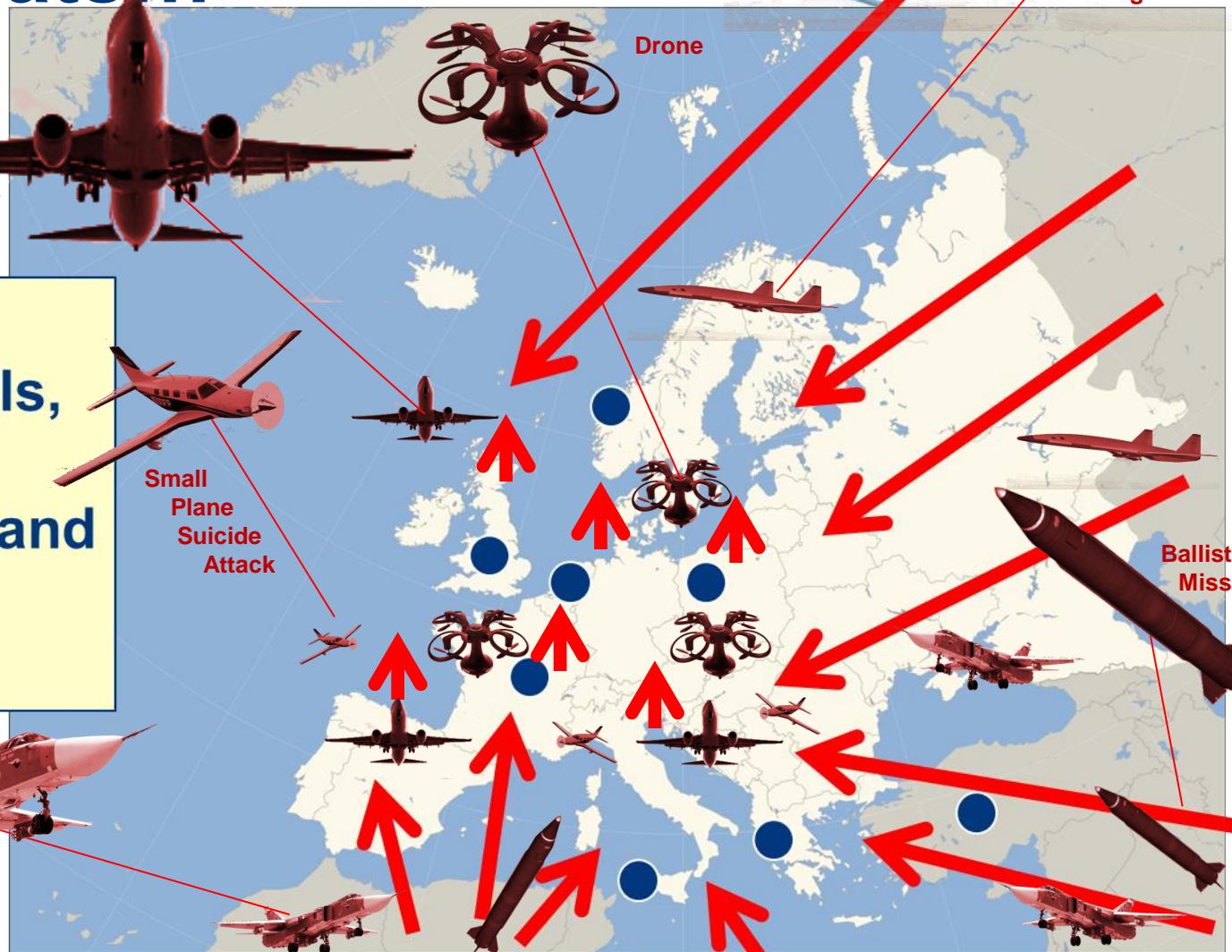
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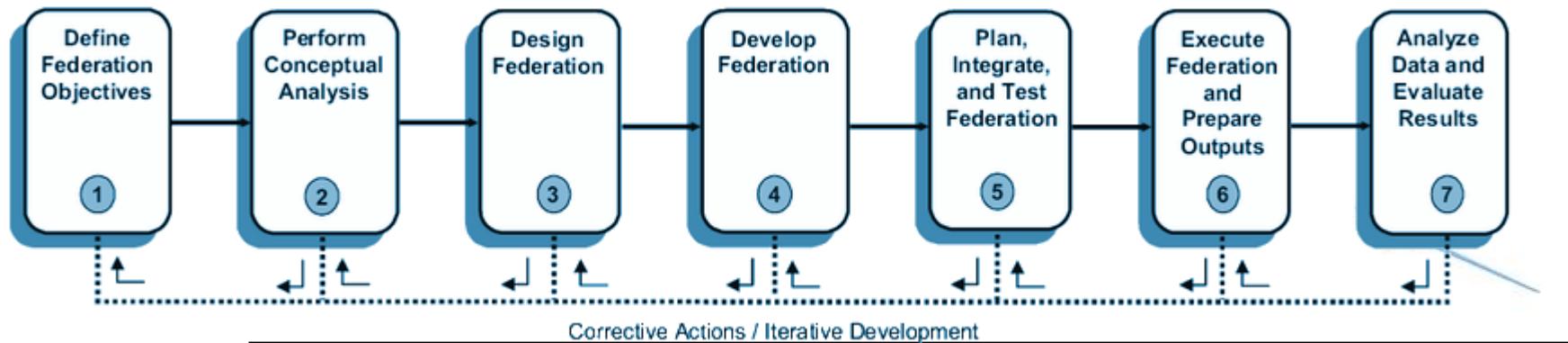
New Threats...

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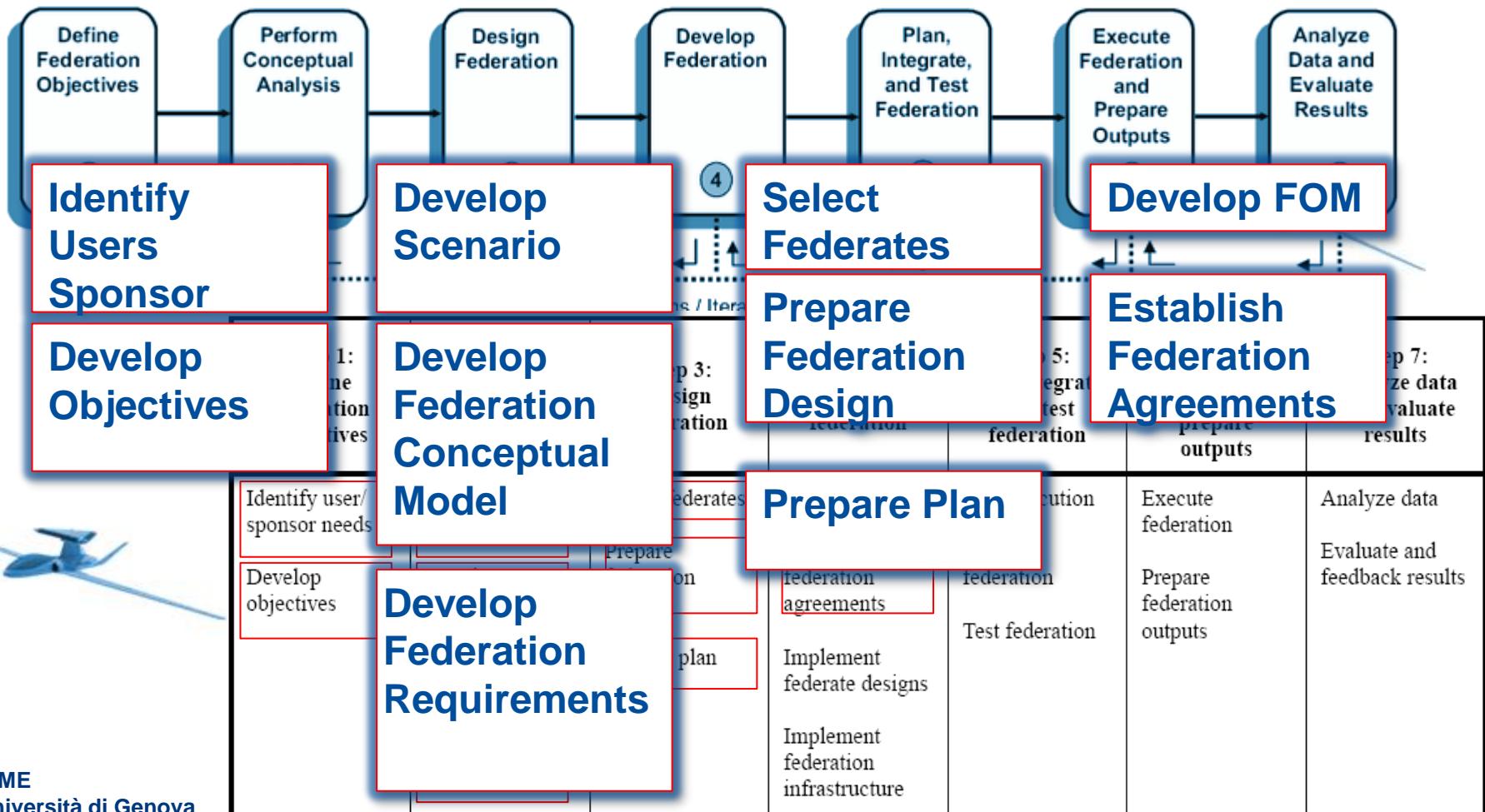
FEDEP... up to You



Step 1: Define federation objectives	Step 2: Perform conceptual analysis	Step 3: Design federation	Step 4: Develop federation	Step 5: Plan, integrate, and test federation	Step 6: Execute federation and prepare outputs	Step 7: Analyze data and evaluate results
Identify user/sponsor needs Develop objectives	Develop scenario Develop federation conceptual model Develop federation requirements	Select federates Prepare federation design Prepare plan	Develop FOM Establish federation agreements Implement federate designs Implement federation infrastructure	Plan execution Integrate federation Test federation	Execute federation Prepare federation outputs	Analyze data Evaluate and feedback results



FEDEP... up to You







References



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