MANTYCHORE

SCRUM in an FP7 Project

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Presentation

- Pau Minoves, Software Engineer.
- Working with SCRUM for large organizations for the last 3 years.
- This presentation is based on Mantychore's FP7 experience.
  - Currently M10 of 30.
  - YMMV
- Mantychore is planned to use SCRUM from the beginning.
  - But Agile inside the Framework Programme is easier said than done.

Overview

MANTYCHORE PROJECT OVERVIEW

Mantychore @ a Glance

- Mantychore legacy
  - 2006 – Manticore
  - 2007 – Manticore II
    - (also with RedIris, Cisco and Juniper)
  - 2010 – Mantychore FP7
- ICT-2010 Call 7
  - 1.2.3 – Virtual Research Communities
- Total Project Cost: 1,564,386€
- EC contribution: 1,399,740€
- Start date: October 2010
- Duration: 30 months
- Partners composition
  - 1 Research Center
  - 2 NREN
  - 3 users
  - 1 commercial operator

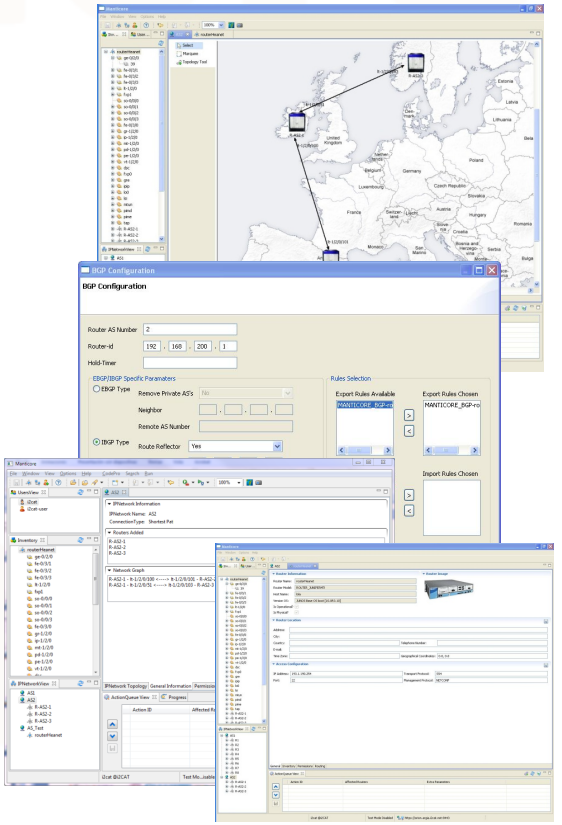
Our Challenge

VISION

- Provide a software implementation and tools for providing and managing routers and IP networks as services.

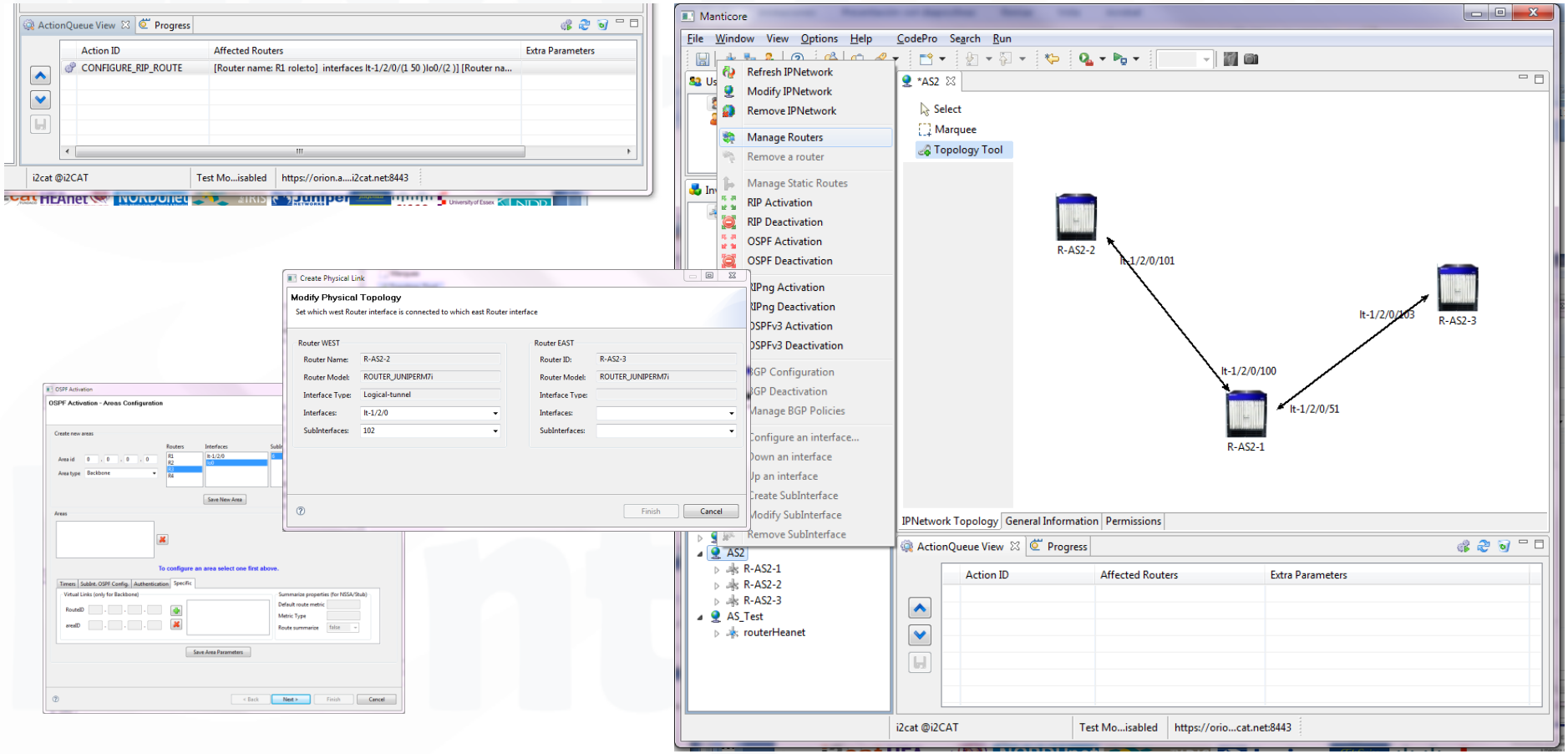
MISION

- By means of :
  - Infrastructure Provisioning:
    - Marketplace of Physical/logical routers and IP networks
  - IP Network as a Service:
    - Creation and configuration of IP networks
    - L1 and L2 integration
  - Providing the service to 3 virtual research communities



- Mantychore will be deployed over the infrastructure of 2 NRENS and 3 initial users.

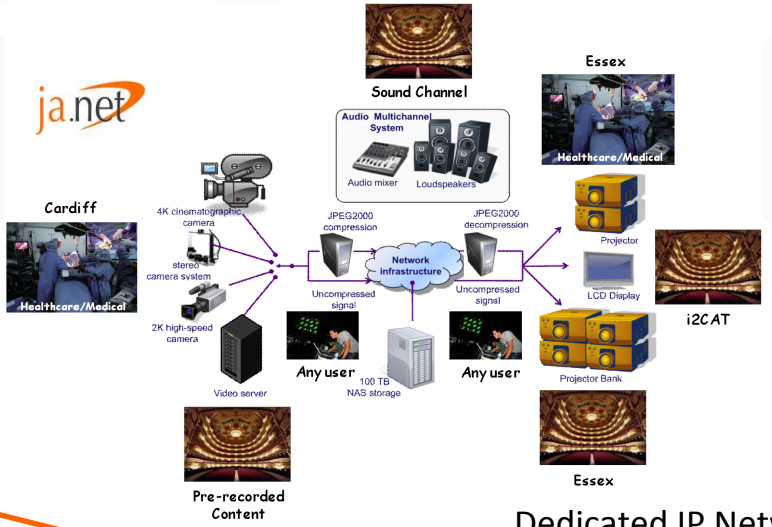
Resource Manager Center



User community : e-Health, Media and Grid

Enhanced

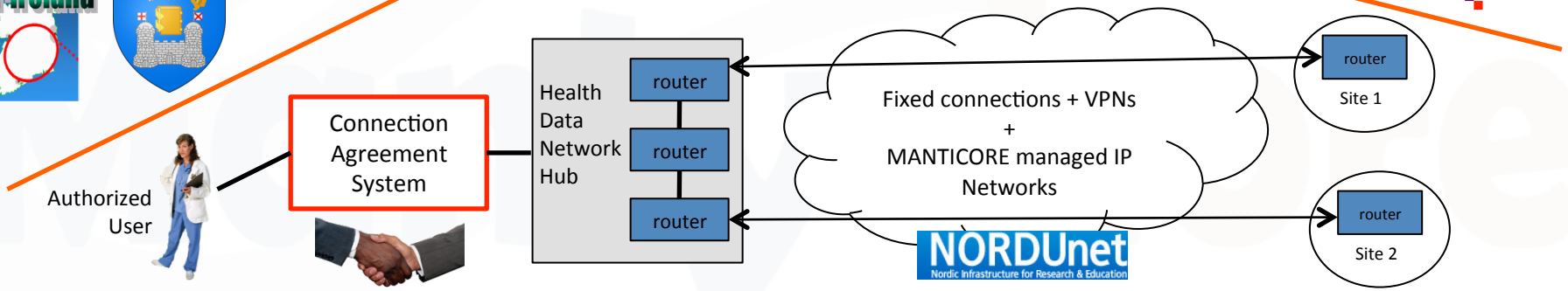
G… …id "Cloud Layer", TCD



Dedicated IP Networks to support **media** services (Wales and Scotland),

University of Essex

Improving the **Health** Data Network, UNI•C



OPEN PROJECT CONSIDERATIONS

Open Project Considerations

- Expected benefits
  - Better external user involvement via increased transparency.
    - Welcome feedback and involvement.
  - Better outcome quality via public exposition of results.
    - i.e. project documentation.
  - Simplified communication infrastructure.
    - Closed mailing list for consortium-internal discussions.
    - Open mailing list for all technical discussions.
  - Welcome foreign contributions to the project effort.
    - Collaborate with interested developers.
  - Allow other projects to inspect our assets and look for reusable contents.

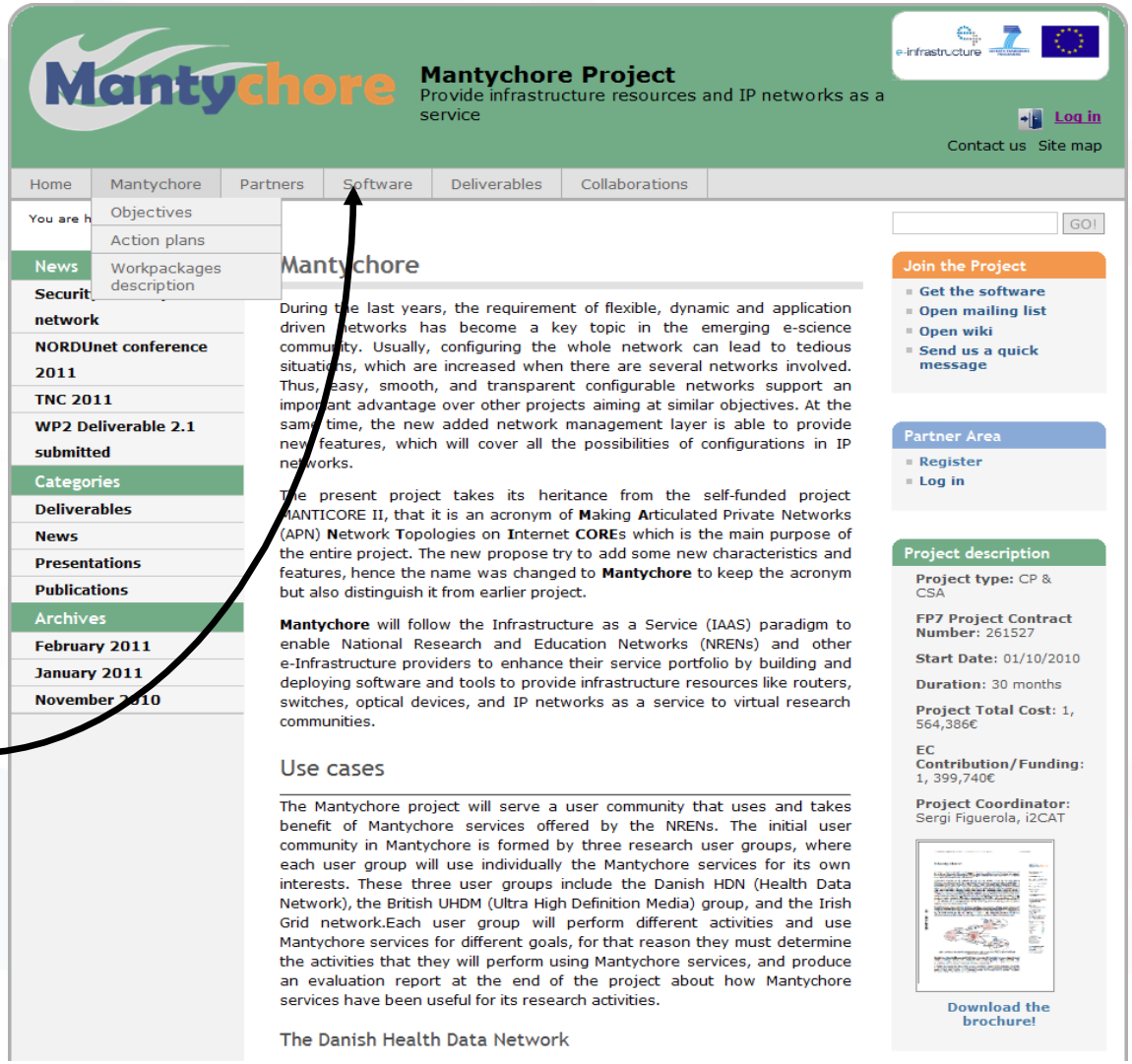
Open Project Approach

- Official Website
  - Points to all the resources
  - www.mantychore.eu
- Open Wiki
  - http://jira.i2cat.net:8090/display/MANTECH/Home
- Open Mailing list
  - Open technical
  - Archives online
  - http://listas.i2cat.net/cgi-bin/mailman/listinfo/mantychore-technical
- Open Source
  - http://anon:anon@svn.i2cat.net/repos/manticore/

Open Project Approach

- News
- Pointers to all past presentations
- Archives

- How to get a copy of the source code

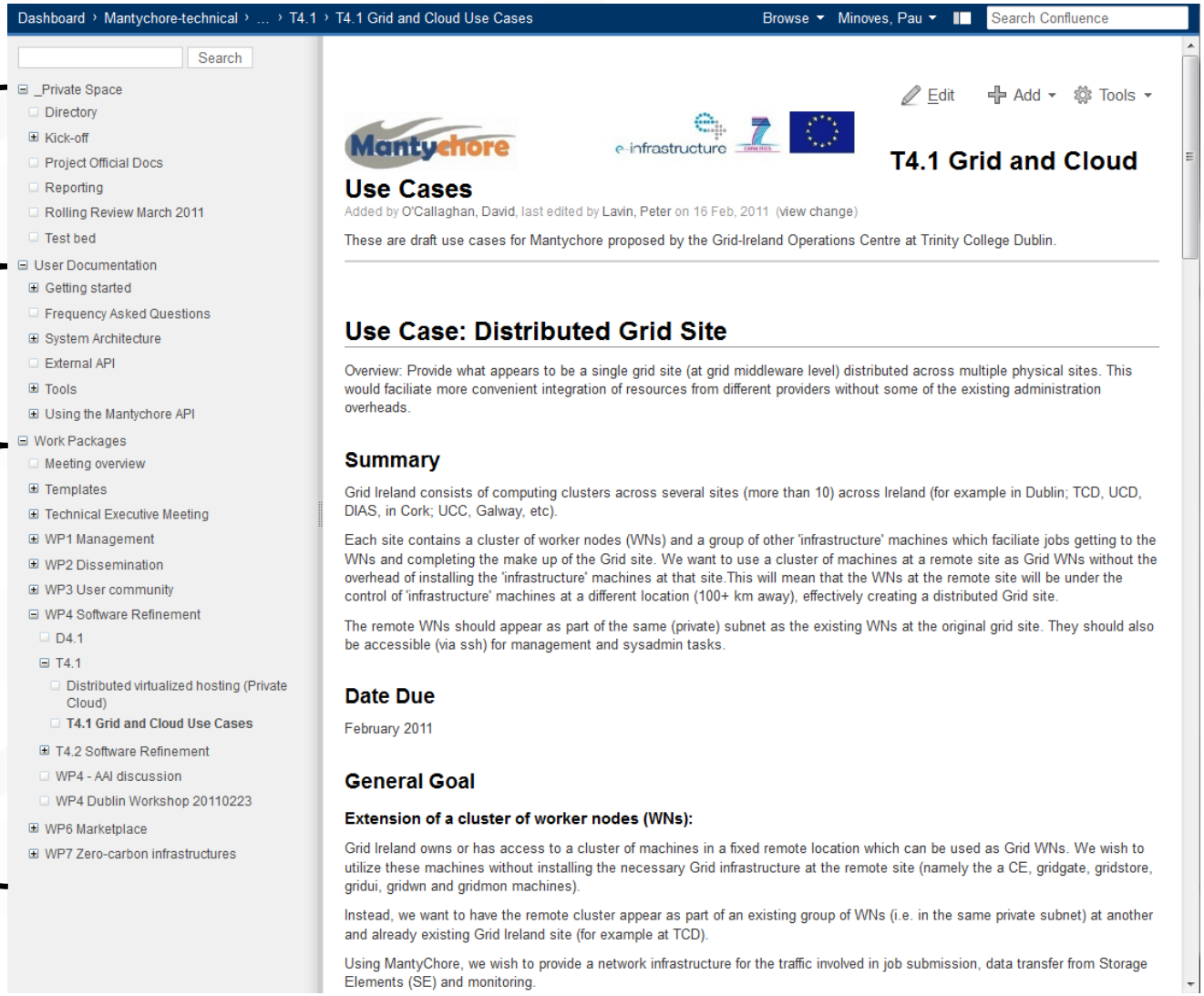


Open Project Approach

- Pointers to all participation channels
- Partner only area

Open Project Approach

- Private area
- User Documentation
- Working Area
- Work Packages and Task have spaces here
- Deliverables are published here
- Public read-only



ROLES

Roles – The Product Owner

- Group all requirements generating WP in a Product Owner Committee.
  - Internal users
    - Partners, JRAss.
  - External users
    - From dissemination and/or exploitation tasks, other project WPs, liaisons, etc.
- Still, the PO should be a single person.
- Consider having a f2f meeting just to bootstrap the PO Committee.
  - Shared vision will save you trouble later.
- Key aspects when choosing PO:
  - Availability.
    - An unresponsive PO severely impacts sprint performance.
  - Project vision knowledge.

Roles – The Team

- Distributed teams have a big impact here.
  - Not our case, but I would consider each location as a team, even if one-man.
- If the distributed developers are from different partner institutions they will have different responsibilities in the DoW.
  - Which makes them effectively different teams.
- Most of Scrum Master's work needs to be done within the team.
- Strive for team auto-organization and full sprint responsibility assumption.
  - Demo to the consortium.

Roles – The Scrum Master

- Key aspects are:
  - Knowledge and experience with SCRUM
  - Co-location with the dev. Team.
- SM needs to orchestrate several WP so a degree of authority on WP leaders is needed.
- WP leaders need to be convinced to commit to SCRUM.
- In Mantychore:
  - The technical manager.
- Should the Scrum Master be part of the team?
  - Our experience shows that he is more helpful as first-line product owner.
  - Also, technical manager makes a poor team member.

WORK PACKAGES AND TASKS

Work package explanation

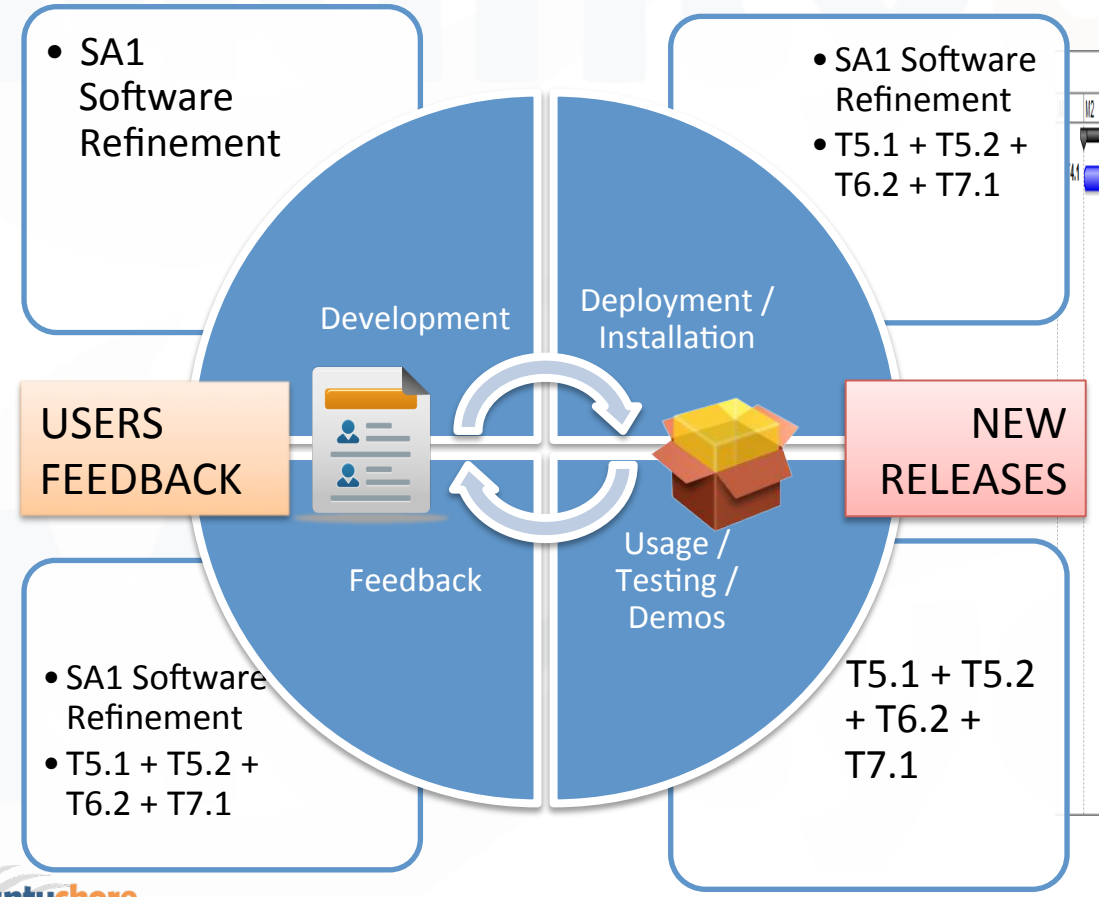
- Work plan,
  - Concurrency of
    - Requirements
    - Development
    - Deployment
  - … tasks is a must.

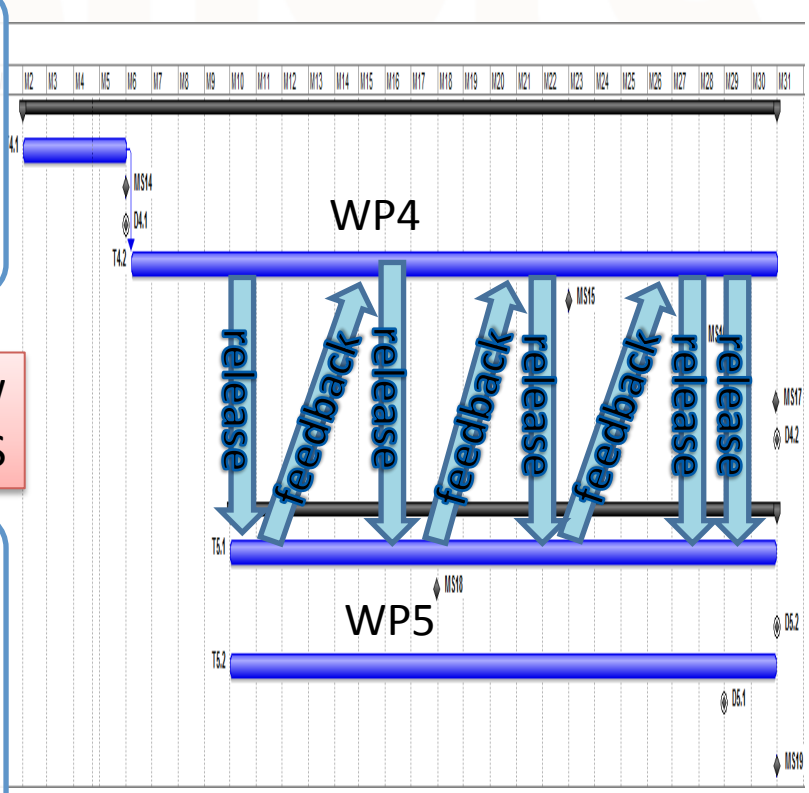
- Decouple development and deployment cycles?
  - YMMV, test bed is expensive to get (in € and time).
  - Does req. feedback depends on deployment cycle?
    - Req. feedback can severely impact spring success.

Development methodology

❑Continuous integration

Monthly release ⟷ **Periodic feedback**



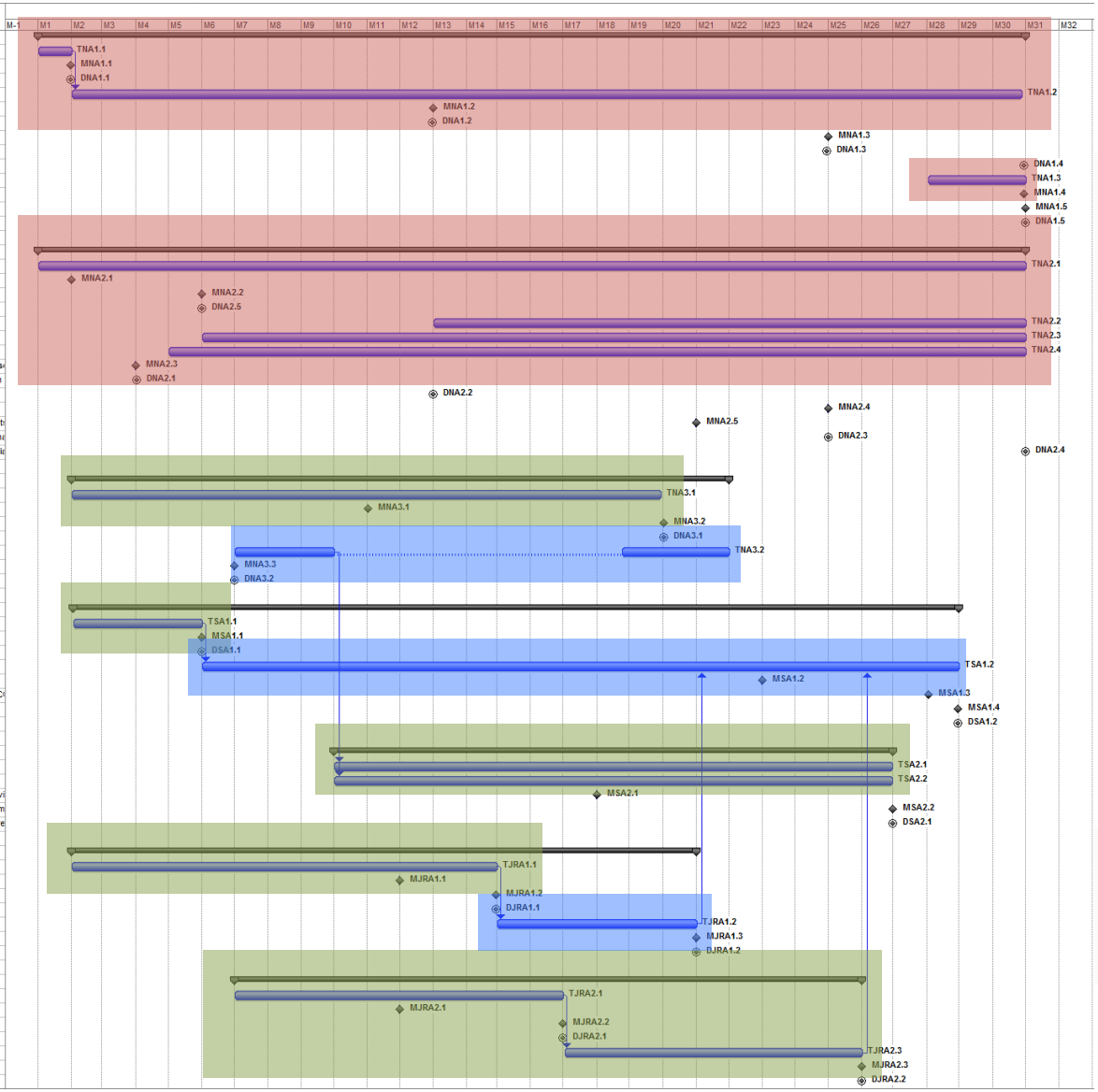


Work package explanation

- Which WP are involved in SCRUM and which are not?
  - Depending on the nature of duties.
    - Management and dissemination work packages don't.
    - Req. generating tasks can be grouped behind the PO, so they have freedom to organize themselves, yet they are properly channelled.
    - All tasks that contribute to a release should be on the dev. side.
- Is not uncommon to have this tasks split on several work packages.
  - Group them, using the PO Committee and dev. Teams.
- Example: Joint Research Activities
    - They feed use cases into the product backlog.
    - For instance JRA1 T1 is pure theory and T2 is pure development
    - JRA2 has theory but also works on the deployment of physical nodes, which matches badly with scrum.

Work Plan

Id	Resource name	Tasks name
1	**NA1**	**Project Management**
2	TNA1.1	Project Planning
3	MNA1.1	All Project Management procedures in place and operational
4	DNA1.1	Project Presentation
5	TNA1.2	Work Progress Tracking
6	MNA1.2	1st Project Review successfully completed
7	DNA1.2	1st Periodic Activity Report
8	MNA1.3	2nd Project Review successfully completed
9	DNA1.3	2nd Periodic Activity Report
10	DNA1.4	Final Activity Report
11	TNA1.3	Project Results Evaluation
12	MNA1.4	Final Project Review successfully completed
13	MNA1.5	All project documentation complete
14	DNA1.5	Project results evaluation report
15		
16	**NA2**	**Dissemination, exploitation, standardisation and liaisons**
17	TNA2.1	MANTICORE dissemination
18	MNA2.1	Web site first version
19	MNA2.2	Web site ready
20	DNA2.5	Web site
21	TNA2.2	MANTICORE exploitation
22	TNA2.3	Contribution to standard bodies
23	TNA2.4	Liaisons with relevant research projects
24	MNA2.3	Related events, projects and standards identified. Exploitation, diss
25	DNA2.1	MANTICORE exploitation, dissemination, standardisation and liaison
26	DNA2.2	Report on dissemination and planning update
27	MNA2.4	At least one liaison with other projects and groups
28	MNA2.5	At least two contributions done in workshops or other public event
29	DNA2.3	Report on MANTICORE related research, exploitation and dissemina
30	DNA2.4	Report on standards, exploitation and dissemination activities and li
31		
32	**NA3**	**Consolidating the User Community and users training**
33	TNA3.1	Liaisons with new user groups, projects or research centres
34	MNA3.1	Internal report about the current users found finished
35	MNA3.2	User Community consolidated
36	DNA3.1	MANTICORE User Community final report
37	TNA3.2	Training Users
38	MNA3.3	MANTICORE user manuals completed
39	DNA3.2	MANTICORE user manuals
40		
41	**SA1**	**MANTICORE software refinement**
42	TSA1.1	Requirements Analysis
43	MSA1.1	Requirements Analysis completed
44	DSA1.1	Requirements Analysis report
45	TSA1.2	Software development: tools integration and refinement
46	MSA1.2	Marketplace integrated in MANTICORE services
47	MSA1.3	Zero-carbon emissions virtual infrastructures integrated in MANTIC
48	MSA1.4	Software development completed
49	DSA1.2	Software development report
50		
51	**SA2**	**MANTICORE services for virtual research communities**
52	TSA2.1	Deployment and operation of MANTICORE services at NRENS
53	TSA2.2	Using MANTICORE services in virtual research communities
54	MSA2.1	Internal report of MANTICORE services deployed in NRENs and in vi
55	MSA2.2	MANTICORE services evaluated in NRENs and virtual research com
56	DSA2.1	Report on MANTICORE services deployment in NRENs and virtual re
57		
58	**JRA1**	**Infrastructure resources marketplace**
59	TJRA1.1	Infrastructure marketplace mechanisms study and simulation
60	MJRA1.1	Studies completed
61	MJRA1.2	Simulation completed
62	DJRA1.1	Infrastructure marketplace mechanisms study
63	TJRA1.2	Implementation of the marketplace prototype
64	MJRA1.3	Marketplace protype implemented
65	DJRA1.2	Implementation of the marketplace report
66		
67	**JRA2**	**Zero-carbon emissions virtual infrastructure**
68	TJRA2.1	Integration between MANTICORE and GSN
69	MJRA2.1	Physical networks integrated
70	MJRA2.2	Services integrated
71	DJRA2.1	Integration between MANTICORE and GSN report
72	TJRA2.3	Testing networks migration
73	MJRA2.3	Tests performed
74	DJRA2.2	Networks migration tests report

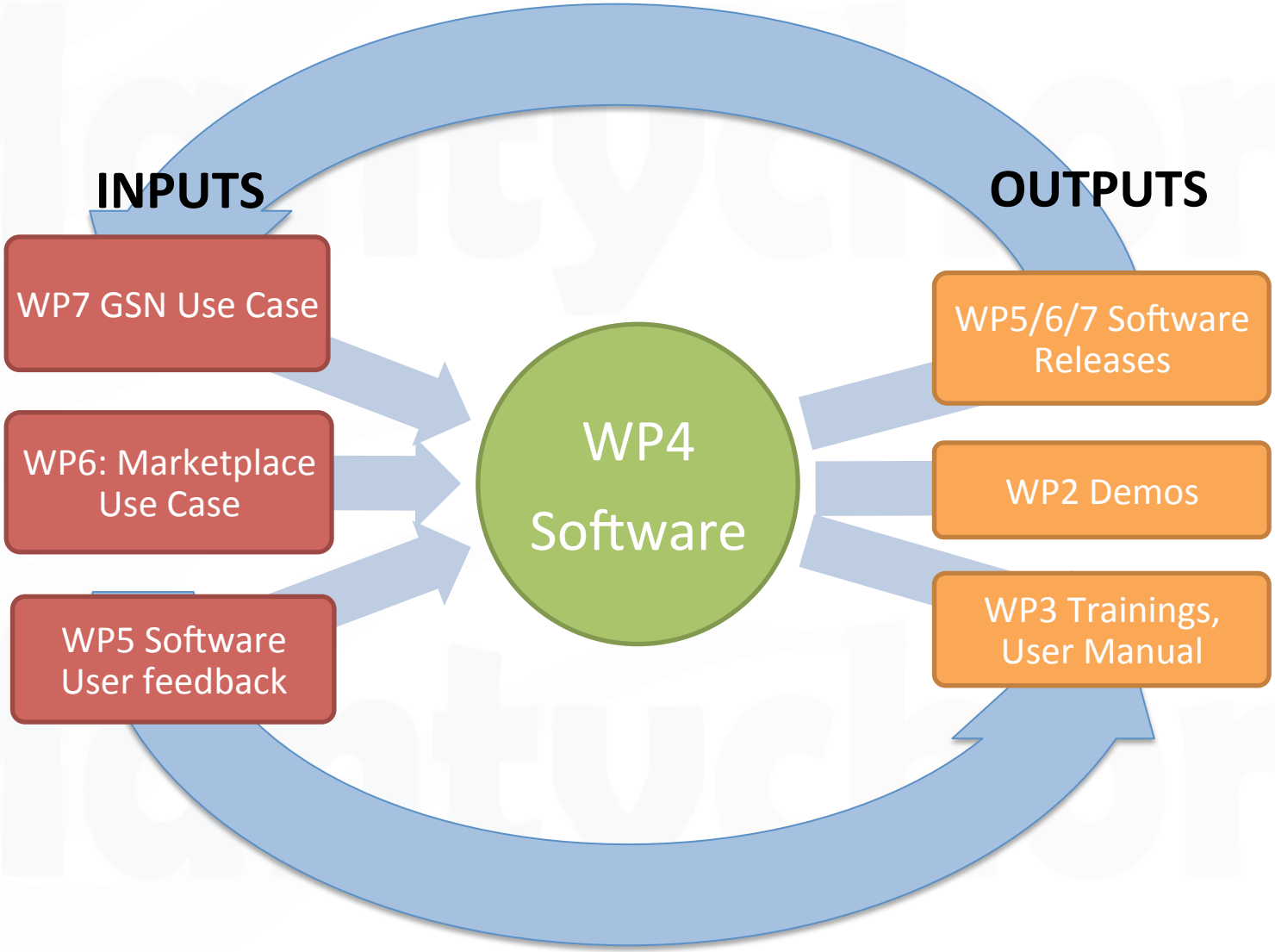


Out

PO

Team

Interaction from WP4 to other WPs



DELIVERABLES

Deliverables

- The key difference between FP7 and Agile is a different risk model.

  Contract & deadlines vs. Prototype & evolve.
- You know in advance a lot of information
  - Milestones and deliverables
  - Effort pool is fixed.
- Milestones and Prototype deliverables force you to have a long term roadmap.
  - Not cool in SCRUM land, but useful.
  - Other work-packages need this roadmap too.
  - A fixed release cycle serves as a way for external users to plan with you.
- If the team needs to do a deliverable, include it in the planning.
  - Set Sprint length accordingly.

Deliverable problem example

- D3.1 User Manuals
- Re-adapted in an Open and Agile project context.
  - Constantly evolving documentation.
    - Deliverable becomes just one snapshot of it at delivery time.
  - Documentation available online for external visitors.
    - Open wiki.
  - Several WP interact with and consume the User documentation.
  - Rules and procedures established to keep documentation updated by all work packages.
  - http://jira.i2cat.net:8090/display/MANTECH/D3.1+User+Manuals
  - http://jira.i2cat.net:8090/display/MANTECH/User Documentation
- Talk to your Project Officer!

Questions?

THANKS