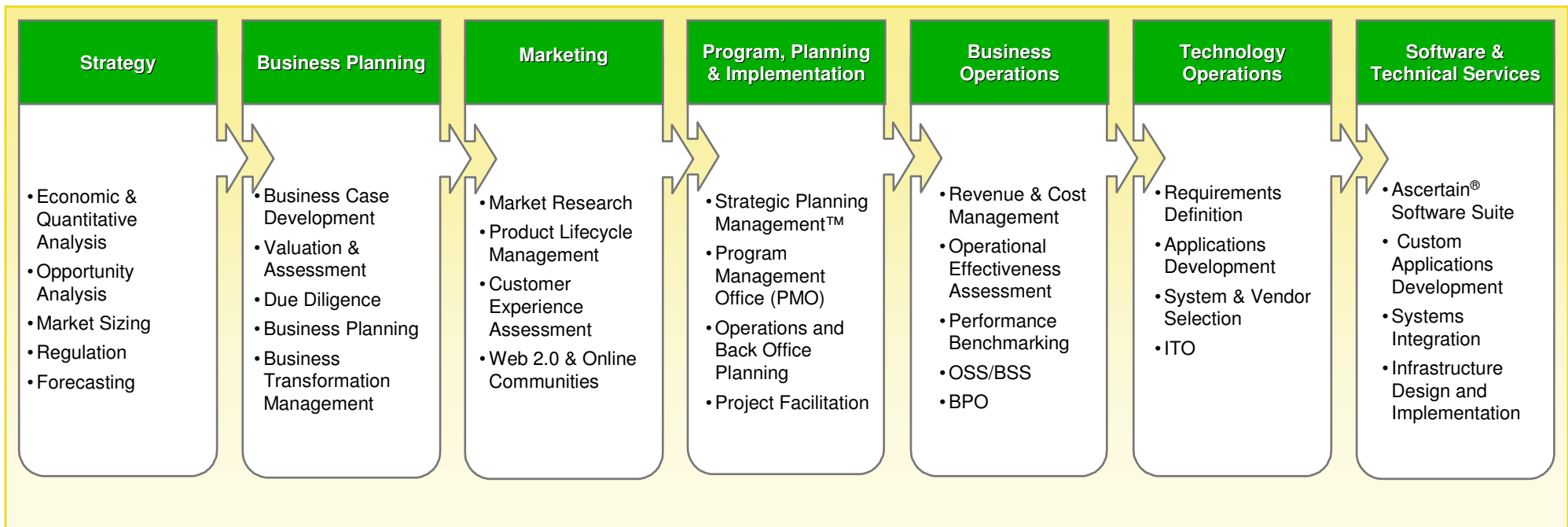**CSMG**

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BtB Interfaces:
Meeting the needs of Next Generation Access

A CSMG report for Ofcom

Prepared for: **BSG COTS Project Meeting**

25th January 2010

"We Make Strategy Work"

CSMG is the strategy arm of TMNG Global, an international provider of consultancy, software and services to the telecoms and digital media industry

| **Strategy** | **Operations** | **Technology** |

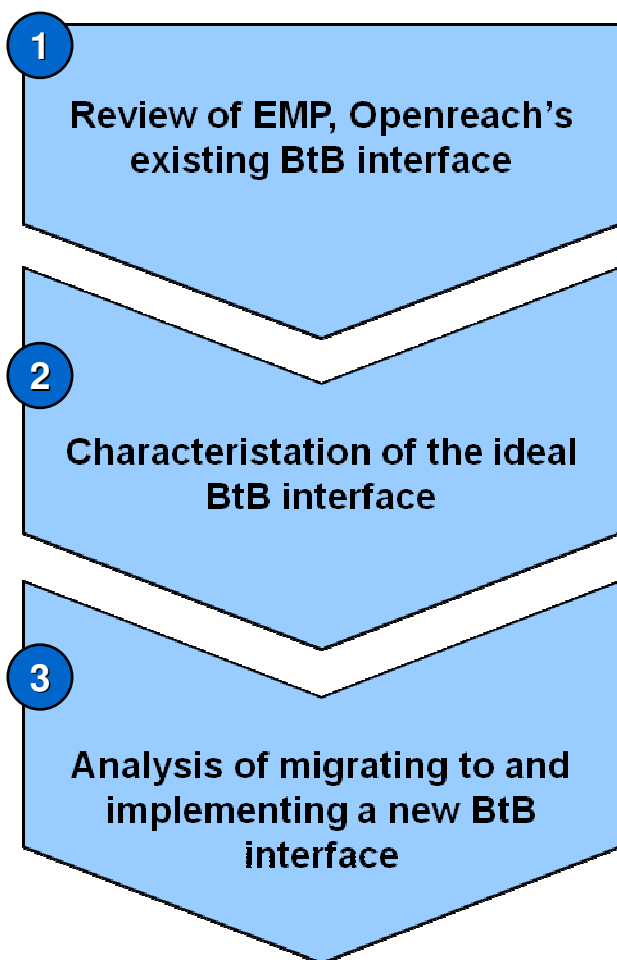| Strategy	Business Planning	Marketing	Program, Planning & Implementation	Business Operations	Technology Operations	Software & Technical Services
• Economic & Quantitative Analysis • Opportunity Analysis • Market Sizing • Regulation • Forecasting	• Business Case Development • Valuation & Assessment • Due Diligence • Business Planning • Business Transformation Management	• Market Research • Product Lifecycle Management • Customer Experience Assessment • Web 2.0 & Online Communities	• Strategic Planning Management™ • Program Management Office (PMO) • Operations and Back Office Planning • Project Facilitation	• Revenue & Cost Management • Operational Effectiveness Assessment • Performance Benchmarking • OSS/BSS • BPO	• Requirements Definition • Applications Development • System & Vendor Selection • ITO	• Ascertain® Software Suite • Custom Applications Development • Systems Integration • Infrastructure Design and Implementation

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Ofcom has identified BtB interfaces as a potential barrier in the NGA wholesale market

- Next generation access will be rolled out by a range of different providers that will sell connectivity to CPs

- CPs will use business-to-business (BtB) interfaces to buy these services

- If the interfaces are all different, CPs will face high costs to enter small markets

- Ofcom commissioned CSMG to examine the opportunity for industry to avoid these high costs in a multi-provider marketplace

- CSMG's report considers the requirements for a next-generation BtB interface and assesses potential implementation models

- By publishing the report, Ofcom seeks to stimulate and contribute to an industry debate on these topics

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Access network fragmentation and increasing reliance on active access raises the importance of BtB interfaces in achieving a well-functioning NGA marketplace

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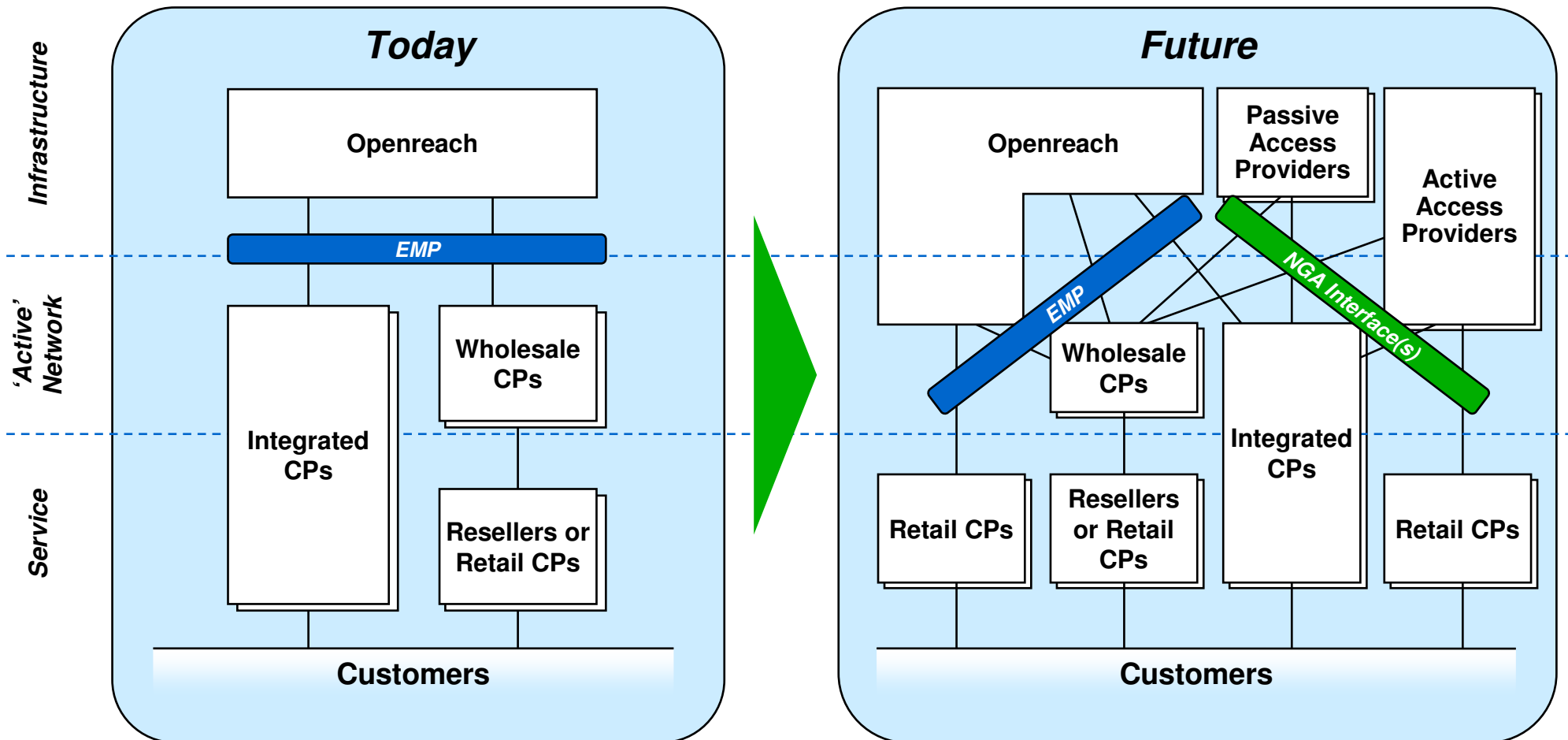
We followed a three phase approach; a series of interviews was held with stakeholders across industry to gather input on key issues and requirements

1 Review of EMP, Openreach's existing BtB interface

2 Characteristation of the ideal BtB interface

3 Analysis of migrating to and implementing a new BtB interface

Stakeholders Interviewed

Infrastructure Providers

independent fibre networks

digital region south yorkshire

RUTLAND TELECOM

Communications Providers

O2

TalkTalk
Phone and Broadband

sky

CABLE & WIRELESS

Integrators and Aggregators

VANGENT
Inspired Thinking. Powerful Results.

SVENSKA STADSNÄTS FÖRENINGEN
(SUNA)

Regulatory and Industry Bodies

Ofcom
OFFICE OF COMMUNICATIONS

BSG Broadband Stakeholder Group

OTA Office of the Telecommunications Adjudicator

Stakeholders shared their perspectives on current BtB interface implementations and the ideal interface for a multi-provider NGA world

Selected quotations

Ideally all you would need to do is:
"change the URL on your interface systems"

On Web Services:
"low cost, light weight and highly efficient"

"We would prefer a 'read/write' system over the current 'read-only', to allow assurance checks on our orders."

International standardisation:
"would be hard to do, but could be achieved using small steps"

Stakeholder requirements were synthesised into five key characteristics for a BtB interface that would meet the needs of Next Generation Access

'Must Have' Requirements

Key Characteristics

- Allows CPs to have common processes across all Infrastructure Providers (IPs)
- Supports seamless customer migration
- Supports interface relationships between infrastructure providers

1 Multi-provider support

- Scope includes full service/ customer lifecycle
- Permits IPs providing deep network control to CPs
- Permits deep access to remote diagnostics and fault reporting

2 Permits full access to service features

- Allows updating of product modules separately from underlying platform upgrades
- Requires minimal or no ongoing investment to stand still by either CPs or IPs

3 Cost-effective consumption model

- Follows IT industry best practice implementation principles, including strong interface definition and data validation
- Does not require use of proprietary software

4 Implements IT best practice

- Transactional performance to meet user requirements

5 SLA-backed performance

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We also gathered stakeholder input on implementation options; the options can be characterised in terms of the degree of centralisation and the role of regulation
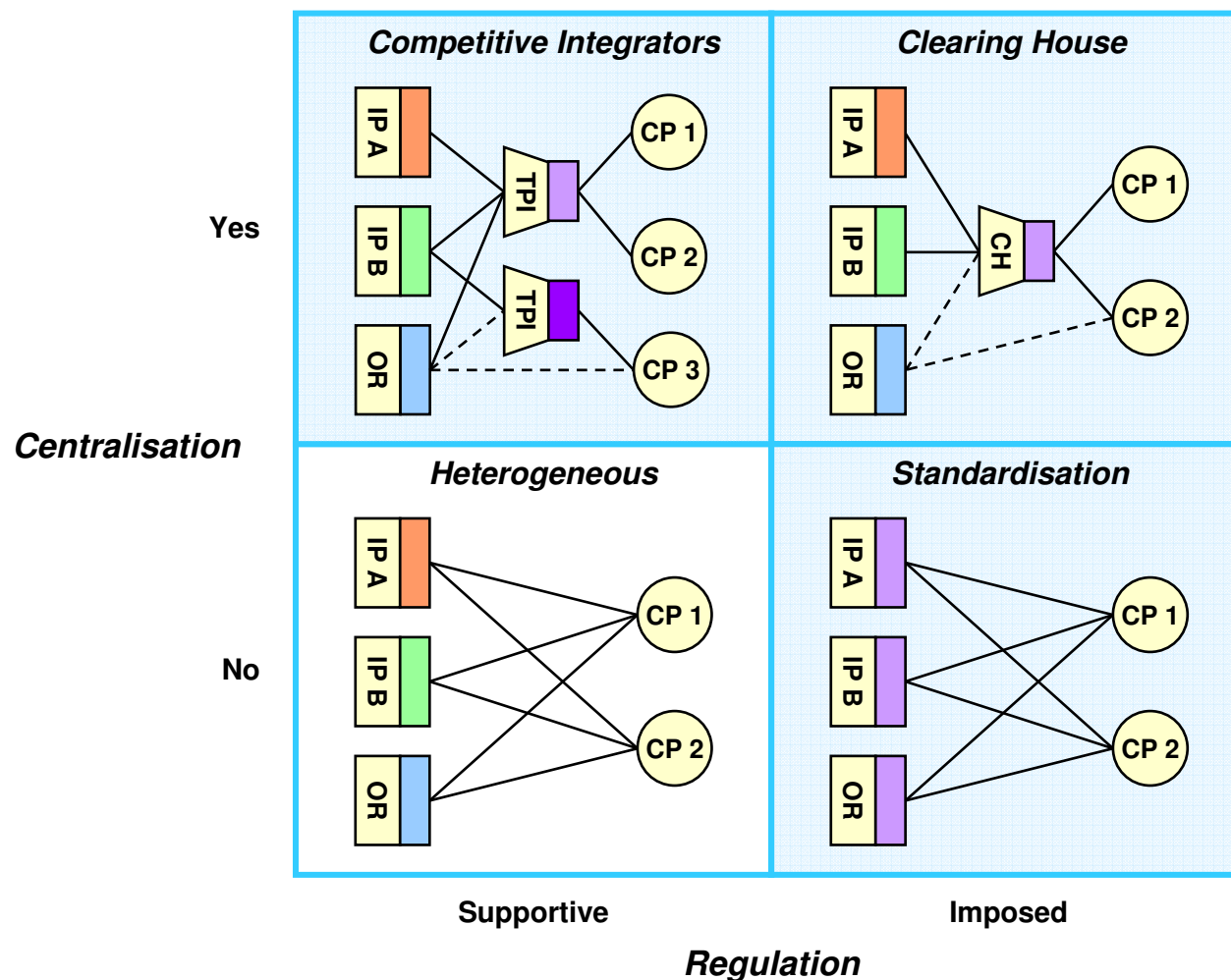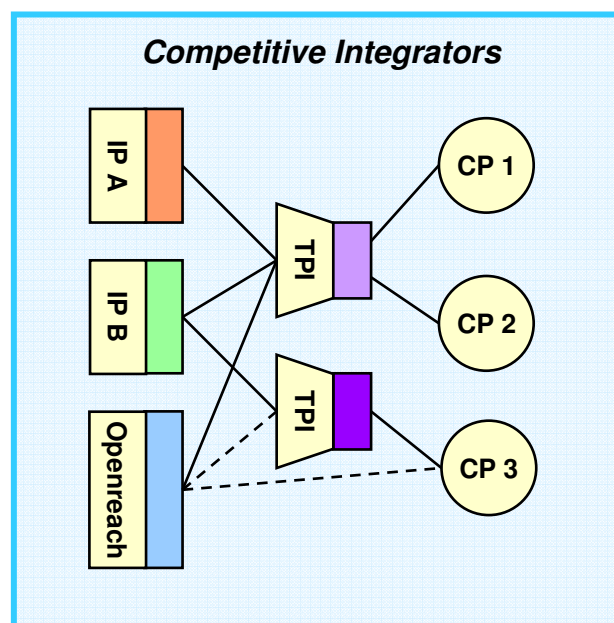
Clearing House describes a regulated centralised industry body that acts as an intermediary between Infrastructure Providers and CPs
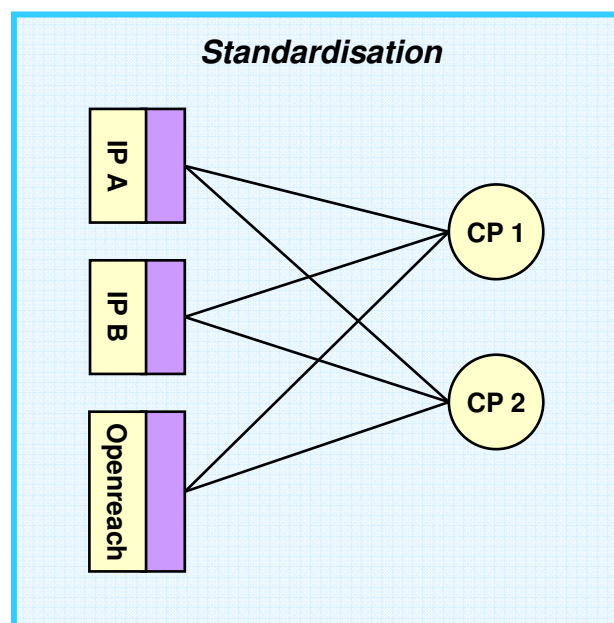

Clearing House

Pros	Cons
• CPs only need a single interface connection to work with all IPs that supply the clearing house • Allows variation in interfaces between IPs and the clearing house • Provides a suitable location for a central network database	• May limit ability for IPs to differentiate • High cost and complex funding • Requires high level of collaboration to develop and maintain • Slow to develop and implement • Likely to require regulatory intervention

Competitive Integrators is a market-led solution where one or more Third Party Integrators (TPIs) act as intermediaries, performing aggregation and mediation

Competitive Integrators

Pros	Cons
• Increased ability for IPs to differentiate • Allows some choice of interface by IPs and CPs • Does not require significant industry collaboration • Competitive TPIs should lead to low overall cost to industry • Free market solution that requires little or no regulatory intervention	• Market response may be harder to predict than regulation • Risk of smaller IPs facing higher barriers to entry • Separate solution required for a network database

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Mandated Standardisation imposes an industry standard BtB interface; CPs interface directly with Infrastructure Providers using a common interface definition

Standardisation

Pros	Cons
• Allows IPs to retain greater control of their own customer interfaces • Little or no third party involvement required	• Requires CPs to develop direct relationships to multiple IPs • Requires full investment in interface system by each IP • Requires industry collaboration to define and maintain standard • May require some regulatory intervention • Separate solution required for a network database

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Issues for Industry

- Adoption of the five key characteristics as the basis for NGA interface solutions

- Determine whether the current EMP interface definition and technology choice provide a suitable basis for industry standardisation

- Reach consensus on a preferred implementation option

Potential Next Steps

- Validate key findings and conclusions in report

- Reach consensus on open issues

- Promote BtB interface standardisation within the industry, specifying and adopting a required set of interface elements and parameters

- Engage TPIs in COTS project; leverage their experience in mediation and explore potential future business models

- Ensure consistency with ALA work

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